AD-8129TH Thermal Printer





1WMPD4005388

This Manual and Marks Herein

Note Describes "when it is easy to mishandle" and "general advice when using this product".

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1. Introduction

This manual describes how the AD-8129TH Thermal Printer work and how to get the most out of them in terms of performance.

Read this manual thoroughly before using the printer and keep it at hand for future reference.

1-1. Features

- □ This device is a printer used to connect to a weighing device such as A&D's electronic balance, scale, counting scale, moisture analyzer, vibro viscometer or weighing indicator and print out data transmitted from the weighing device.
- □ With thermal printing, the printed contents can be clearly and easily viewed, and the print density can also be changed.
- □ Light weight and compact size of the printer enables it to be set up in various locations and be easily transported.
- □ The printer is equipped with the RS-232C or current loop interface for data input, so it allows easy connections between the printer and a weighing device such as an electronic balance.
- Dust-free paper sold separately is available for using the printer in cleanrooms (AX-PP183-S).
- Built-in clock function of the printer enables printing out of the date and time.
- D Printing at a regular interval is possible. (Interval printing)
- □ Statistical calculation results of the weighing data, including standard deviation, can be printed out.
- □ Time series variation of the weighing data in chart form can be printed out.
- D The liquid crystal display provides easy conditions confirmation and settings of the printer.
- By pressing the key switch of the printer, a re-zero command to zero the display and request commands for the weighing data can be transmitted to a weighing device, enabling the weighting data to be printed out without touching the highly sensitive weighing device.

2. Product Structure (Part Names), Package Contents



Thermal printer paper for printers (1 pcs)

* Attached to the main body







Power cable AX-KO1885 (Approx. 2 m)

Affix the AC adapter label to the cable of the provided AC adapter.

- * Using the wrong AC adapter with the AD-8129TH may prevent the AD-8129TH or weighing devices from operating properly.
- * Confirm that the adapter type is correct for the local voltage and power receptacle type.

RS-232C cable D-sub9 pin – 9 pin (AX-KO2741-100)







Sold separately

- □ Thermal printer paper for printers (5 pcs) AX-PP147-S
- $\hfill\square$ Dust-free thermal printer paper for printers (10 pcs) \hfill AX-PP183-S

2-1. Part names



3. Preparations

3-1. Connecting the AC adapter

Instructions

- 1. Confirm that the power switch is turned to off.
- 2. Connect the power cable and AC adapter.
- 3. Connect the DC plug of the AC adapter to the power connecter of the printer.
- 4. Connect the AC plug to the outlet.



3-2. Opening and closing the printer cover

When installing and removing the printer paper, open the printer cover to allow these operations to be performed.

Instructions

- 1. Press the button on the right side of the printer cover.
- 2. Lift the printer cover upwards.





3-3. Installing the printer paper

Instructions

- 1. Place the printer paper so that its leading edge protrudes from the printing unit.
- 2. Close the printer cover.
- 3. Turn the power switch on.
- 4. Press the $\begin{vmatrix} 100 \\ 8 \\ FEED \end{vmatrix}$ key to feed the printer paper 5 or 6 cm out of the printing unit.



*Thermal printer paper for printers(5 pcs)AX-PP147-SDust-free thermal printer paper for printers(10 pcs)AX-PP183-S

3-4. Test printing

To start test printing, turn the power on while pressing and holding the



key, and then press and hold the

Printout example

₩XY 9▼ TEST

key (for approx. 4 seconds).

By performing test printing, the status of the function settings can be confirmed.

* To stop printing, turn the power off.



* PRINTER SETUP]* VERSION :V1.05(2024/06/17) USER MODEL : AND PRINT MODE : EXT_KEY PRINT FORMAT : WEIGHT PRINT FORMAT2 : +/- PRINT US PRINT : NOT PRINT DATE FORMAT : Y/M/D LINE FEED : 1 LINE USER CODE : 00000001 TOTAL MODE : TIME PRINT CODE PRINT : PRINT CODE DIRECTION: L <-- R NO_PRINT : PRINT BACK FEED : YES PRINT DENSITY : 70% INTERFACE : SERIAL(RS-232C) CURRENT LOOP PROTOCOL : 2400bps, E, 7, 1 CURRENT TIME/DATE : 2024/11/01 12:34:56

3-5. Connecting to the weighing device

Use the RS-232C or current loop cable to connect the printer to the weighing device. The factory default communication settings are baud rate: 2400 bps, data length: 7 bits, parity: EVEN,

stop bit: 1 bit. This is in accordance with the factory default settings for most of A&D's weighing devices.



Weighing device rear side

 If the weighing device has a connector other than D-sub 9 pin, an RS-232C cable (sold separately) is required.

* If connecting to the current loop output of a weighing device, a current loop cable (sold separately) is required.

4. Printing

4-1. Printing out data from the weighing device

Instructions

- Turn the printer power on. The factory default printing mode is "External key printing mode (E⊠T. KEY)".
- 2. Connect the printer to the weighing device using a RS-232C or current loop cable.
- Transmit data to the printer from the weighing device.
 (e.g.) Press the PRINT key on the weighing device.
 Refer to the instruction manual of the weighing device for the data output methods, output format and RS-232C communication settings.
- 4. Press and hold the $\begin{bmatrix} N \\ FEED \end{bmatrix}$ key to feed the printer paper until the printed results can be viewed, and then cut off the printer paper.
- * Some weighing devices have functions such as outputting by pressing the **PRINT** key or automatically outputting after stabilizing the weighing.

4-2. Paper feed

8

Instructions

1. Press the

key to allow paper feed while the button is pressed.

4-3. Precautions

- □ Storage of thermal paper
 - Store the thermal paper in a cool, dry, dark place.
 - Do not rub the thermal paper with a hard object.
 - Do not place the thermal paper near organic solvents.
 - Do not allow the product to come into contact with PVC film, erasers, or adhesive tape to touch the thermal paper for extended periods of time.
 - Do not stack the thermal paper with whiteprints or wet copies immediately after copying.
- Do not drop foreign matter into the printer. Doing so may cause mechanical damage to the printer.
- □ When operating the printer, install the printer in a stable location. Installing the printer in an uneven or unstable location may result in movement of the printer caused by vibration due to printing out, leading to a serious accident.
- Depending on a material (PVC, etc.) of the installation table, rubber may transfer to it from the printer.
 Do not set the printer on a table or sheet made of vinyl.
- When cleaning the main unit, do not use organic solvents such as alcohol, thinner, or benzine.
 Otherwise, that may cause damage to the printer as its main body is made of plastic.

5. Basic Operations of the Keys

There are two actions possible when pressing a key.

*

- 1. Press the key and release after the buzzer sounds
- 2. Press and hold the key (for approx. 2 seconds) and release after the buzzer sounds twice





	When the key is pressed	When the key is pressed and held for		
Keys	(Until the burger sounds are time)	approx. 2 seconds		
		(Until the buzzer sounds twice)		
I TIME	Prints out the current time.	Puts the printer in the time settings mode.		
ABC 2 DATE	Prints out the current date.	Puts the printer in the date settings mode.		
DEF 3 MODE	Accesses the printing mode settings.			
GHI 4 CODE	Prints out the ID code.	Puts the printer in the ID code settings mode.		
S-TOTAL	Prints out the total.			
G-TOTAL	Prints out the statistical calculation results.			
PRS 7	Deletes one instance of the data to be used in	Deletes all of the data to be used in statistical		
DEL	statistical calculation.	calculation.		
B FEED	Feeds the paper one line.	Feeds paper while the key is pressed.		
	Test prints when the power is turned on while			
TEST	pressing this key with the power turned off.			
	Cancels changes at each setting.	Transmits a re-zero command. *		
	Advances to the next setting item when	The commands can be selected at the		
	configuring the function settings.	function settings.		
	Prints out weighing values in the manual			
	printing mode.			
	Prints out received weighing values after			
	transmitting weighing value request			
	commands ("Q" command) to the device at			
	the external key printing mode and dump printing mode. *			
	Confirms the setting changes	Toggles between the external key printing		
(ENT)	Stons or restarts the chart printing while	mode and dump printing mode.		
SAVE	nrinting a chart	Completes the chart printing while printing a		
		chart.		

* When connecting using the current loop, the commands cannot be transmitted.

Statistical Calculation Functions 6.

In addition to printing out weighing values, the printer can also perform statistical calculation of the weighing values printed out. The printer always performs calculation processing while operating, so you can print out calculation results at the touch of a key whenever needed.

Printing example and printing contents of statistical calculation 6-1

When printing out the weighing values, the weighing umber is 1. printed out.

If unit and kind of data entered in the printer differ from those of the data entered first, the printer prints out the values without calculating.

If accidentally printing out the weighing values, press the 2.



key.

key. "****< *** DELETE >****" is displayed and the printer does not calculate prior data.

When printing out total calculation results, press the 3.

Date and time, ID code, data count (N) and total (TOTAL) are printed out. To delete all the data used with the statistical calculation, press and

hold the

key for approx. 2 seconds.

When printing out all of the calculation results, press the 6▲ 4 key.

Date and time, ID code, data count (N), total (TOTAL), averaging value (AVE), maximum value (MAX), minimum value (MIN), maximum value - minimum value (R), standard deviation (STDEV), coefficient variation (CV) and minimum weighing value (MINI WT) are printed out.

Standard deviation (STDEV) Coefficient variation (CV) = × 100(%) Averaging value (AVE)

Minimum weighing value (MINI WT) = standard deviation (STDEV) × 2000

- Calculation of the minimum weighing value conforms to USP Chapter 41. This calculation is applied only when weighing using a weight.
- Data count (N) to be calculated is a maximum of 999.
- 5. After printing out all of the calculation results, data to be used at statistical calculation can all be deleted. (Or press and hold the

key for approx. 2 seconds to make the same operation.)



I CD display



: To delete all of the data.

: To not delete the data.

LOD display						
CL DA	EAR TA?					

ID (ODE :	LAB-1234	
NO.	1 WT	1000.12	g
NO.	2 WT	1000.20	g
NO.	3 WT	1000.16	g
NO.	4 WT	1000.21	g
¥	***< 004	4 DELETE >**	***
NO.	4 WT	1000.25	g
NO.	5 WT	1000.13	g
	****< SI	JB TOTAL >**	
2024	/11/01	15:31:50	
II	CODE	LAB-1234	
	Ν	5	
	TOTAL	5000.86	g

Printout example

.....

****< GRAND	TOTAL >**	**
2024/11/01	15:32:07	
ID CODE	LAB-1234	
Ν	5	
TOTAL	5000.86	g
$AVE(\overline{x})$	1000.17	g
MAX	1000.25	g
MIN	1000.12	g
RANGE(R)	0.13	g
STDEV(o)	0.054	g
CV	0.01	%
MINI WT	108.00	g

7. Basic Settings

The basic settings allow easy key operations to perform minimum required settings such as clock and printing mode. The setting values are always backed up using the built-in battery, so those values are maintained in the memory even when the power is turned to OFF or the AC adapter is disconnected.

Note If an alarm such as one long beep followed by three short beeps sounds when the power is turned to ON, the printer is prevented from printing properly and configuring settings for date and time due to an error in the built-in lithium battery. In this case, the printer requires repair.

7-1. Time settings



7-3. Printing mode settings



7-4. ID code setting



* Direction in which the ID code is set can be changed using the function settings.

8. Function Settings

The function settings are available for changes to communications and functions of the printer.

These parameters are maintained in non-volatile memory, even if the AC adapter is removed.

This function table menu consists of two layers. The first layer is the "Class" and the second layer is the

ENT

SAVE

key

"Item". Each item has one setting value registered. A setting value confirmed by pressing the

after selecting the item becomes effective.

The updated settings will be reflected in the printer's operation after the power is turned off and on again.

Settings example and menu structure



Settings become effective by turning the power off and on again.

8-1. Function settings display and operation keys

Display and operation keys	Descriptions
*	Currently enabled setting values are indicated by the " 🐮 " mark being lit.
$ \begin{pmatrix} \bullet_{\text{GZ}} \\ 1 \\ \bullet_{\text{TIME}} \end{pmatrix} \begin{bmatrix} ABC \\ 2 \\ DATE \end{bmatrix} \begin{bmatrix} DEF \\ 3 \\ MODE \end{bmatrix} \begin{bmatrix} GHI \\ 4 \\ CODE \end{bmatrix} $	Accesses menu for the item selected when "ITEM SEL" is displayed.
GTOTAL	Changes settings values.
ENT	Changes current item and advances to next item.
ESC	Advances to next item without changing current item.

8-2. Items list

Class	Items	Setting values	Details and usage	
		1200	1200 bps	
	BAUDRATE	2 488	2400 bps	
		4800	4800 bps	
	Daug rate	9688	9600 bps	
4		19200	19200 bps	
	nontru	NONE	Not used	
*1		ODD	Odd	
1	Failty	EUEN	Even	
	WORD LEN	8 bit	8 bit	
	Data length	■7 bit	7 bit	
	STOP BIT	■1STOP	1 bit	
	Stop bit	2STOP	2 bit	
o-HEKINED		■ AND	A&D standard format	*3
Data format *2		•	Subsequent values are for	
		·	other-company format.	
		- EVT VEU	External key printing	
	PRN_MODE Printing mode	EALSNEY	mode	
		MANUAL	Manual printing mode	*4
		AUTO	Auto printing mode	*4
		TIMER	Interval printing mode	*4
		DUMP	Dump printing mode	
		CHART	Chart printing mode	*4
		•WEIGHT	Weighing values only	
		TIME/WG	Date and time + weighing	
	PRN FOR.		values	
	Printing data		Date and time + weighing	Prints out date
3=MODE		TM1/WG	values	and time only at
Function settings				first operation.
			Prints out when the	
		+ PRN	weighing values are at	
	PRN FOR2		"+".	
	Printing data 2		Prints out when the	
		■+/- PRN	weighing values are at	
			"+" and "-".	
	US PRN	NOT PRN	Not printed out	
	Unstable data	PRINT	Printed out	
	DATE FOR		yyyy/mm/dd	
	Date form	MZDZY	mm/dd/yyyy	
		DZMZY	dd/mm/yyyy	

indicates factory settings.

*1 Initial setting values of the serial interface are adjusted to those of A&D weighing devices.

*2 Please also set the output format of the scale to the A&D standard format.

*3 We do not support operations of product formats other than A&D standard format.

*4 The output mode of the weighing device must be set to stream output.

Class	Items	Setting values	Details and usage	
			Feeds one line after	
			printing.	
		2 I TNE	Feeds two lines	
			after printing.	
		3 I TNE	Feeds three lines after	
			printing.	
		4 LINE	Feeds four lines after	
	FEED CNT		printing.	
	Feed	5 LINE	Feeds five lines after	
			printing.	
		6 LINE	Feeds six lines after	
			printing.	
		7 LINE	Feeds seven lines after	
		8 LINE	printing.	
			printing	
3=MODE	TOTAL MD Calculation printing	■T/D YES	Adds a date to the	
Function settings			calculation printing	
		TZD NO	Does not add date to the	
			calculation printing	
	CODE PRN	NOT PRN	Not printed out	When printing out
				No.1 data and
		PRINT	Printed out	statistical
				calculation
	CODE DIR	•L < R	To left from right	
	ID setting direction	L> R	To right from left	
	kin ooki	NOT PRN	Not printed out	Number to be
	Weighing number			applied to
	printing	PRINT	Printed out	statistical
	printing			calculation
	REZERO	SEND R	R command	
	*5	SEND Z	Z command	

indicates factory settings.

*5 Set the command so as to match figures for the weighing device connected.

Class	Items	Setting values	Details and usage	
		 NONE 	Has no function.	
		PRINT	Printed out	Printing mode is "MANUAL".
		FEED	Paper feed	*6
	EXT IN1 External input 1	G TOTAL	Calculation results printing	
		S TOTAL	Total printing	
		RZZ CMD	Re-zero command	
		Q CMD	Weighing value request command	
		 NONE 	Has no function.	
उ≕≌0DE Function settings	EXT IN2 External input 2	PRINT	Printed out	Printing mode is "MANUAL".
		FEED	Paper feed	*6
		G TOTAL	Calculation results	
		S TOTAL	Total printing	
		RZZ CMD	Re-zero command	
		Q CMD	Weighing value	
			request command	
	BACK FD	•YES	Enables backfeed	
	Backfeed *7	NO	Disables backfeed	
	DENSITY Print Density	50%~100%	Print density input	Factory settings: 70%
d=TNTTO	PPN F/O		Resets the printer's	
Initialization	Initialization	-	function settings to	
	milanzation		factory settings.	
		- NOT HSE	Disables password	When the password
			function	function is enabled,,
5=PW	LOCK			the password must
Password lock function	Password lock function	USE	Enables password	be entered in order
			function	to change the date,
				settings.

indicates factory settings.

*6 By pressing the external input switch one time, paper feed is started. By pressing the external input switch once again, paper feed is stopped.

*7 This function loads the paper into the printer, prints, and then advances the paper to a position where the printed text is easy to see.

8-3. Initializing the function settings

When resetting the function settings values of the printer to factory settings, perform

"Initializing (4=1日訂百匹)" in "8-2. Items list".



key: Initializes function settings to factory settings.

key: Cancels initialization

(The function settings are not initialized.)

LCD display



8-4. Descriptions for the printing mode

Printing method of the printer varies depending on "Printing mode (PRN MODE)" in "8-2. Items list".

External key printing mode (EXT. KEY)

Printing is done using weighing device's keys without making printer key operations.

Set data output settings of the weighing device to output using the keys.

It is also possible to print out data by pressing the

key to transmit a weighing value

request command ("Q" command) to the weighing device side.

But when connecting using current loop, the commands cannot be transmitted.

Manual printing mode (MANUAL)

Printing can be done by pressing the $\begin{bmatrix} 1 \\ 0 \\ 0 \end{bmatrix}$ key.

Set data output settings of the weighing device to stream output (Always outputting).

Auto printing mode (AUTO)

Printing is done automatically when data transmitted from the weighing device has changes of +10 d or more to zero and is stable.

One d is the minimum display of the weighing device.

Set data output settings of the weighing device to stream output (Always outputting).

Interval printing mode (TIMER)

Printing is done at each time that was set by this mode. To set the interval time, set minutes and seconds (mm:dd) after confirming settings of the printing mode to "TIMER". To suspend the printing, press the



key. To restart the printing, press the

ENT key.

Set data output settings of the weighing device to stream output (Always outputting).

Dump printing mode (D니MP)

Data transmitted from the weighing device is printed out without changes. Use these settings for GLP outputs, etc. of the weighing device.

Set data output settings of the weighing device to output using the keys.

It is also possible to print by pressing the $\begin{bmatrix} \square^{+-} \\ O \\ PRINT \end{bmatrix}$ key to transmit a weighing value request command ("Q"

command). But when connecting using current loop, the commands cannot be transmitted.

Character code table (ASCII) that is available for printing in DUMP printing mode

\searrow	0	1	2	3	4	5	6	7
0			SP	0	@	Ρ	"	р
1			!	1	А	Q	а	q
2			"	2	В	R	b	r
3			#	3	С	S	С	S
4			\$	4	D	Т	d	t
5			%	5	Е	U	е	u
6			&	6	F	۷	f	v
7			,	7	G	W	g	W
8			(8	Н	Х	h	х
9)	9	Ι	Y	i	У
Α			*	:	J	Z	j	z
В			+	;	Κ	Γ	k	{
С			,	<	L	/	l	
D			-	=	М]	m	}
E				>	Ν	^	n	1
F			/	?	0	_	0	

ASCI code available for printing: 20h to 7Eh Spaces cannot be printed.

SP indicates a space.

Chart printing mode (CHART)

Amount of changes of the weighing values is printed out as scatter plot. Changes of the weighing values in real time can be confirmed visually.

At the chart printing mode, set digits (2 digits) for chart printing, minutes and seconds of the interval time (mm:ss) and the printing count after confirming settings of the printing mode to "CHART".

Set data output settings of the weighing device to stream output (Always outputting).

Refer to "8-5. Chart printing mode" for details.

8-5. Chart printing mode

- 1. Set the printing mode to " $\mathbb{CH}\mathbb{ART}$ and press the
- 2. Turn the power off and on.
- 3. Press the $\begin{bmatrix} M & K \\ G & T & T \\ G & T & T \\ \end{bmatrix}$ or $\begin{bmatrix} V & V \\ T & T \\ T & T \\ T & T \\ \end{bmatrix}$ key to select a digit to be transformed in chat and press the $\begin{bmatrix} ENT \\ SAVE \end{bmatrix}$ key to confirm.
- 4. Enter the interval time by using the numerical keypad and press the $\begin{bmatrix} ENT \\ SAVE \end{bmatrix}$ key to confirm.
- 5. Enter the chart printing number by using the numerical keypad and

press the $\begin{vmatrix} ENT \\ SAVE \end{vmatrix}$ key to confirm.

Chart printing starts.

Chart printing example



ENT

SAVE

key to confirm.

6. When the ENT key is pressed and held or the chart print count reaches the number of times that was set beforehand, the chart printing is completed. To stop the chart printing, press the

key. To restart the printing, press the $\begin{bmatrix} E \\ SAVE \end{bmatrix}$

- 7. To repeat the operations from "Step 3" after finishing chart printing, press the $\begin{bmatrix} ENT \\ SAVE \end{bmatrix}$ key.
 - *1 Settings range of the interval time is 00 : 05 (5 seconds) to 59 : 59 (59 minutes 59 seconds).
 - *2 Settings range of the chart print count is 010 (10 times) to 990 (990 times).



PRN MODE

key.

8-6. Descriptions for the external input connector

By using the external input connectors, operations such as printing, paper feed or re-zero on a weighing device away from the printer can be performed. The printer has two external inputs. Those operations can be set by "External input 1 (EXT IN1)" and "External input 2 (EXT IN2)" of "Function settings (3=MODE)" in "8-2. Items list".

Combination example



Using the external input connector (Example using a foot switch)

- 1. Insert either pin terminal into the "GND" of the external input connector. *1 , *2
- Insert the other pin terminal into the "EX1" or "EX2" of the external input connector. *2
- 3. When removing the pin terminal from the external input connector, pull out the conducting wire while pressing the releasing button. *2
- *1 If the pin terminal cannot be secured properly by inserting, insert the pin terminal while pressing the releasing button.
- *2 If the releasing button can not easily be pressed, depress the releasing button using a screwdriver.



9. Password Lock Function

This function is used to set a password to allow only an administrator who knows the password to change the date or time setting and function settings. The operator can change the ID number even while the password lock function is in use.



9-2. Where the password is entered

When the password is enabled (LIBE *), the password must be entered by using the setting operations described below.



Interface Specifications 10.

10-1. RS-232C

The printer is a DTE device. Connect a weighing device (DCE) to the printer using a straight through cable.

: EIA RS-232C			
: Asynchronous, bi-directional, half duplex			
: Baud rate	:1200、2400 [*] 、4800、9600、19200 bps		
Terminator	: <cr><lf></lf></cr>		
Data length	: 7 * or 8 bits		
Parity	:EVEN*、ODD(Data length 7 bits)		
	NONE (Data length 8 bits)		
Stop bit	: 1 bit		
	: EIA RS-232 : Asynchrono : Baud rate Terminator Data length Parity Stop bit		

* Indicates factory settings. (This is in accordance with the factory default settings for most of A&D's weighing devices.)

D-Sub 9-pi	n assignment			
Pin No.	Signal name	Direction	Description	
1	RXD		Current loop receiving data	
2	RXD	Input	Receive data	
3	3 TXD Output Transmi		Transmit data	
1	Llood intornally	ed internally Output	Unavailable for connection	and the second s
4	Used internally		(5V output)	
5	SG	Output	Signal ground	$\left[\begin{array}{c}12345\\0\\0\\0\\0\\0\\0\\0\\0\\0\\0\\0\\0\\0\\0\\0\\0\\0\\0\\0$
6			No connection	
7			No connection	6789
8			No connection	
9			No connection	#4-400110

RS-232C connection



11. Maintenance

11-1. Care and cleaning

- Do not use organic solvents or chemical cloth to clean the printer.
- □ Clean the printer with a lint free cloth that is moistened with a mild detergent.
- Do not disassemble the printer.
- □ Use the original packing material for transportation.

11-2. Checking the printer performance

If the printer seems to have a problem, check the items described below. If improper performance persists after checking, contact the local A&D dealer for repair.

Checking the power supply

□ Is an appropriate AC adapter connected?

Checking the data transmission

- □ Is the printer connected to the weighing device using an RS-232C straight through cable or current loop cable?
- □ Are the RS-232C settings (baud rate, data length and parity) of the printer the same with those of the weighing device?

Checking the printer paper

- □ Are you using thermal paper for the printer?
 - * Plain paper for the AD-8127 multi-function printer cannot be used.

Sold separately

- Thermal printer paper for printers : AX-PP147-S
- Dust-free thermal printer paper for printers : AX-PP183-S

11-3. Troubleshooting

No.	Phenomenon		Possible cause, remedy
11-3-1	The Weighing values cannot be printed.	The results are printed as dots.	An improper AC adapter may be used with the printer. Confirm that the adapter type is correct for the local voltage and power receptacle type. Refer to "2-1. Part names" in "2. Product Structure (Part Names), Package Contents" in this document.
11-3-2		Nothing is printed on the printer paper	If you are using printer paper other than the thermal paper provided, the printer paper may not be thermal paper. Please check the model number of the printer paper. Model number : Thermal paper for printers AX-PP147-S Dust-free thermal paper for printers AX-PP183-S

No	Phenomenon		Possible cause remedy
110.	1110		The printer cannot receive weighing values because the printer is set to "Manual printing mode" [3=MODE PRN MODE / MONLIAL MANUALI in the function settings.
			* Manual printing mode is used to print weighing values each
			time the $\begin{bmatrix} 0\\ -PRINT \end{bmatrix}$ key on the printer is pressed while the
			weighing values are being continuously transmitted from the
			weighing device to the printer.
			1. To print weighing values using keys on the weighing device
			Initialize the settings for the printer. Refer to "8-3 Initializing the function settings" in "8 Function
			Settings" in this document.
			2. To print weighing values using keys on the printer
			Perform by one of the methods below. 2-1 Transmitting the weighing value request command from the
			printer to the weighing device.
			* These operations are available only for weighing device that
			can output weighing values using the "Q" command.
			- Data output format: "A&D standard format"
			2) Settings for the printer
			- Printing mode: "External key printing mode" [SEMULE]
			Refer to "7-3. Printing mode settings" in "7. Basic Settings" in
		Printer display	this document.
11_3_3	The Weighing values cannot be printed.		3) Printing the weighing value
11-3-3			- By pressing the $\vec{0}_{\text{PRINT}}$ key on the printer, the weighing value
			request command ("ℚ" command) is transmitted from the
	printou.		printer to the weighing device, and then the printer prints the
			weighing values received from the weighing device.
			2-2 Printing weighing values each time the $\begin{bmatrix} 0\\ PRINT \end{bmatrix}$ key on the printer is
			pressed while the weighing values are being continuously
			transmitted from the weighing device to the printer
			- Data output mode: "Stream mode" (outputting the weighing
			values continuously)
			2) Settings for the printer
			- Printing mode: "Manual printing mode" [3=MODE
			PRN_MODE / MANUAL] Pofer to "7.2 Printing mode pottings" in "7 Popie Settings" in
			this document.
			3) Printing the weighing value
			- Press the $\begin{bmatrix} \Box^{+-}\\ O\\ PRINT \end{bmatrix}$ key on the printer to print the newest
			weighing values.
			* When output of weighing values from the weighing device
			re-zeroing, the printer displays the error shown at the left.
		Printer displav	There is no printer paper or the printer cover is open. Refer to "3-3
11-3-4		PAPER ER	Installing the printer paper" to load the paper correctly.

No.	Phenomenon		Possible cause, remedy
			The printer cannot receive weighing values because it is set to
			"Auto printing mode" [3=MODE PRN_MODE / AUTO] in
			the function settings.
			* Auto printing mode of the printer is used to automatically print
			weighing values only when the printer detects a change in a
			weighing value while weighing values are being continuously
			transmitted from the weighing device to the printer.
			1. To print weighing values using keys on the weighing device
			Initialize the settings for the printer.
			Refer to "8-3. Initializing the function settings" in "8. Function
			Settings" in this document.
			2. To automatically print weighing values due to a change in the
			weighing value.
			Perform by one of the methods below.
			2-1 Printing using the auto printing function of the weighing device
			Many models of weighing device are equipped with functions
			(auto printing function) that can automatically output weighing
			values after the weighing value changes or stabilizes. The
	The Weighing values		weighing values can be printed automatically with the printer
			by using this function.
11-3-5		Printer display	1) Settings for the weighing device
			- Data output mode: "Auto printing"
	cannot		 Data output format: "A&D standard format"
	printed		2) Settings for the printer
	printed.		- Printing mode: "External key printing mode" [3=MODE PRN_MODE / EXT_KEY]
			Refer to "7-3. Printing mode settings" in "7. Basic Settings" in
			this document.
			3) Printing the weighing value
			 When outputting the weighing values to the printer by placing
			and removing a sample as instructed in the instruction manual
			of the weighing device, the printer prints the weighing values.
			2-2 Philling using auto printing mode of the printer
			T) Settings for the weighing device
			values continuously)
			- Data output format: "A&D standard format"
			2) Settings for the printer
			- Printing mode: "Auto printing mode" [3=MODE]
			PRN MODE / AUTO]
			Refer to "7-3. Printing mode settings" in "7. Basic Settings" in
			this document.
			3) Printing the weighing value
			- When the weighing value has a change of more than 10 d

No.	Phenomenon		Possible cause, remedy
			Digits to be charted are selected because the printer is set to chart printing mode [3=MODE PRN MODE / CHART].
11-3-6	The Weighing	Printer display TARGET 76543210	 To print weighing values using keys on the weighing device Initialize the settings for the printer. Refer to "8-3. Initializing the function settings" in "8. Function Settings" in this document. To perform chart printing (printing of changes in the weighing value in real time as a scatter diagram) Settings for the weighing device Data output mode: "Stream mode" (outputting the weighing values continuously) Data output format: "A&D standard format" Settings for the printer Printing mode: "Chart printing mode" [3=MODE PRN MODE / CHART] Refer to "7-3. Printing mode settings" in "7. Basic Settings" in this document. Refer to "8-5. Chart printing mode" in "8. Function Settings" to set chart printing mode.
11-3-7	values cannot be printed.	Printer display TIME SET M: S00: 00	 Interval time is set because the printer is set to interval printing mode [3=MODE PEN MODE / TIMER] or chart printing mode 3=MODE PEN MODE / CHART]. 1. To print weighing values using keys on the weighing device Initialize the settings for the printer. Refer to "8-3. Initializing the function settings" in "8. Function Settings" in this document. 2. To perform interval printing or chart printing with the printer. 1) Settings for the weighing device - Data output mode: "Stream mode" (outputting the weighing values continuously) - Data output format: "A&D standard format" 2) Settings for the printer - Printing mode: "Interval printing mode" [3=MODE PRN MODE / TIMER] or "Chart printing mode" [3=MODE PRN MODE / CHART]. Refer to "7-3. Printing mode settings" in "7. Basic Settings" in this document. Refer to "8-4. Descriptions for the printing mode" and "8-5. Chart printing mode" in "8. Function Settings" for detailed settings procedure.

No.	Phenomenon		Possible cause, remedy
			This issue often appears when the printer is used with the HV-C-K
		Duintin a second	series.
		Printing cannot	Settings for the printer
11-3-8		tare	- Printing mode: "Dump printing mode" [3=MODE
		(HV-C-K series)	PRN MODE / DUMP]
			Refer to "7-3. Printing mode settings" in "7. Basic Settings" in
			this document.
			1. An improper connection cable is used between the weighing
			device and printer.
			vvnen connecting the weigning device and printer using an RS-
			232C cable, a straight through cable must be used.
			vvnen connecting using DIN cable (rounded connector), make
			sure that a caple for RS-232C connection is used without using a
			cable for current loop connection.
			Relef to 2. Product Structure (Part Names), Package Contents
			and 12-2. Sold separately in 12. Specifications in this document.
			2. The output format of the weighing device is not correct.
	The		See if printing can be done by the settings below.
	Weighing		If printing can be done properly, the communication settings
	values		between the weigning device and printer match.
	cannot		Dete output formet: "A 2 D standard formet"
	be		- Data output format. Add standard format
	printea.		- Printing mode: "Dump printing mode" [3=M00F]
11-3-9		Others	PRN MODE / DUMP 1
			Refer to "7-3. Printing mode settings" in "7. Basic Settings" in
			this document.
			3. The communication settings between the weighing device and
			printer do not match.
			Confirm the communication settings (baud rate, data bit rate and
			parity bit) for the weighing device and printer. Refer to the
			instruction manual for the weighing device for its communication
			settings.
			Factory settings for most weighing devices are the same as for
			the printer. There are cases when it is possible to print by
			initializing the weighing device and printer
			Refer to "8-3. Initializing the function settings" in "8. Function
			Settings" in this document.
			1) Settings for the printer
			- Confirm settings of the serial interface [1=5EKIHL].
			Refer to o. Function Settings in this document.
			Controliting the weighing volues continuously)
			1. To print weighing values using kove on the weighing device
			1) Settings for the weighing device
	The weigh	ing values are	Data output mode: select other than stream mode
11-3-10	continuous	sly printed	2 To print weighing values using keys on the printer
	without		1) Settings for the printer
	enu.		- Printing mode: Set to manual printing mode Cambon
			PRN_MODE / MANUAL 1.
			Refer to "7-3. Printing mode settings" in "7. Basic Settings" in
			this document.

11-4. When problems cannot be resolved

No.	Phenomenon, desired action		Remedy
	The printed results cannot be seen.		1. Press and hold the $\begin{bmatrix} TUV\\ 8\\ FEED \end{bmatrix}$ key to feed paper until the printed results
11-4-1			 2. Paper can also be fed automatically after the weighing values are printed. Settings for the printer: Select the paper feed amount by "FEED" [3=MODE BACK FD / YES]. Refer to "8-2. Items list ("BACK FD" item)" in "8. Function Settings" in this document.
11-4-2	About the weighing number before the weighing value		 Whether or not to print the weighing number before the weighing value can be selected. 1) Settings for the printer Weighing number printing: Printed out/Not printed out [3=MODE NO. PRN NOT PRN / PRINT] Refer to "8-2. Items list ("NO. PRN" item)" in "8. Function Settings" in this document. 2) Settings for the weighing device Data output format: "A&D standard format"
11-4-3		To reset the printer	Statistical calculation data can be deleted by pressing the $\begin{bmatrix} ENT \\ SAVE \end{bmatrix}$ key
11-4-4		To delete all data to be used for statistical calculation	after pressing and holding the $\begin{bmatrix} PRS \\ DEL \end{bmatrix}$ key (for approx. 2 seconds). Refer to "6-1. Printing example and printing contents of statistical calculation" in "6. Statistical Calculation Functions" in this document. * If statistical calculation data is deleted, the weighing number for that data will be also reset. (printed from "No.1" next time)
11-4-5	About statistical calculation To perform statistical calculation		 Settings for the weighing device Data output format: "A&D standard format" When the weighing values are outputted from the weighing device, do not add information (date / time, ID number, etc.) other than the weighing value to the weighing values. Settings for the printer Printing mode: "External key printing mode" [3=MODE PRN MODE / EXT.KEY] Refer to "7-3. Printing mode settings" in "7. Basic Settings" in this document. Data used for statistical calculation is maintained in non-volatile memory of the printer even when turning the power of the printer off. To reset the weighing number, please delete the statistical calculation data. Refer to "6-1. Printing example and printing contents of statistical calculation" in "6. Statistical Calculation Functions" in this document.

No.	Phenomenon, desired action Remedy		
			1) Settings for the weighing device
			- Set for the weighing device to "Perform the GLP output".
			2) Settings for the printer
			- Printing mode: Dump printing mode [3=MODE]
			PRN MODE / DUMP]
			Refer to "7-3. Printing mode settings" in "7. Basic Settings" in
			this document.
			* When printing maintenance records according to GLP/GMP, the
			printing mode for the printer must be set to "Dump printing mode"
			[3=MODE PRN MODE / DUMP].
			* When performing statistical calculation, the printer is operated using
			"External key printing mode" [3=MODE PRN_MODE /
			EXT . KEY]. Therefore, to print maintenance records
			according to GLP/GMP, it is necessary to change the mode to
			"Dump printing mode" temporarily.
	To print a m	aintenance	* When switching printing mode, please note that the printer
11-4-6	record acco	ording to	deletes all date to be used with statistical calculation. (We
	GLP/GMP	Ũ	recommend taking actions such as printing results for
			statistical calculation beforehand.)
			* Dress and hold the ENT key to switch between "Evternal
			SAVE Rey to switch between External
			printing mode" and "Dump printing mode"
			Refer to the item for the $\begin{bmatrix} \text{ENT} \\ \text{ave} \end{bmatrix}$ key in "5. Basic Operations of
			SAVE
			the Keys" in this document.
			3) Printing the maintenance records
			- When outputting data for maintenance records such as data
			for calibration (sensitivity adjustment) of the printer by
			operating the weighing device, the printer prints the data
			transmitted to it.
			* Return the printing mode for the printer to "External key
			printing mode" if necessary.
			Press the $\begin{pmatrix} 1 \\ TIME \end{pmatrix}$ key to print the time. Press the $\begin{vmatrix} 2 \\ DATE \end{vmatrix}$ key to print
		T	
11-4-7		To print the date / time	The date.
			* By using the password lock function of the printer patting the date /
			by using the password lock function of the printer, setting the date /
			Refer to "9 Password Lock Function" in this document
			1) Settings for the weighing device
			- Data output format: "A&D standard format"
	About		2) Settings for the printer
	About		- Printing mode: "External key printing mode" [3=100F]
11-4-8	time		PRN_MODE / EXT.KEV 1
	anne	10 automatically	Refer to "7-3. Printing mode settings" in "7. Basic Settings" in this
		nrint the date	document.
		/ time when	- Printing data: Date + weighing value [3=MODE PRN_FOR /
		printing the	TIME/ŴG]
		weighing	Refer to "8-2. Items list (" PRH FOR" item)" in "8. Function
		values	Settings" in this document.
			* The printer uses the built-in clock for printing date / time.
			* By using the password lock function of the printer, setting the date /
			time can be limited to only by an administrator.
			Refer to "9. Password Lock Function" in this document.

No.	Phenomeno	n, desired action	Remedy	
11-4-9	To change settings of date / time time		Press and hold the $\underbrace{1}_{\text{IME}}^{\circ \text{OZ}}$ key to enter time setting mode. Press and hold the $\underbrace{2}_{\text{DATE}}^{\text{ABC}}$ key to enter date setting mode. Enter values using the numerical keypad in each setting mode to set date or time. Press the $\begin{bmatrix} \text{ENT} \\ \text{SAVE} \end{bmatrix}$ key while $\begin{bmatrix} \text{TIME} & \text{SET} \\ \text{SAVE} \end{bmatrix}$ is displayed to store date or time. * By using the password lock function of the printer, setting the date / time can be limited to only by an administrator. Refer to "9. Password Lock Function" in this document.	
11-4-10		To not print date / time in Statistical calculation results	Set the printer as follows Calculation printing: Do not add date and time in the calculation printing [3=MODE TOTAL MD / TZD NO] Refer to "8-2. Items list ("TOTAL MD" item)" in "8. Function Settings" in this document.	
11-4-11	Printing	To automatically print weighing values by placing the sample without pressing the key.	Refer to "11-3-5 "2. To automatically print weighing values due to a change in the weighing value." in "11-3. Troubleshooting" in this table.	
11-4-12	the weighing values	To print weighing values using keys on the printer	Refer to "11-3-3 "2. To print weighing values using keys on the printer" in "11-3. Troubleshooting" in this table.	
11-4-13		To print the unstable weighing values where the stable mark is not lit	Set the printer as follows. - Unstable data: Printed [3=MODE US PRN / PRINT] Refer to "8-2. Items list ("US PRN)" in "8. Function Settings" in this document.	
11-4-14	About ID code	To not print ID code	Set the printer as follows. 1) Settings for the printer - ID printing: Not printed out [3=MODE CODE PRN / NOT PRN] Refer to "8-2. Items list ("CODE PRN" item)" in "8. Function Settings" in this document.	
11-4-15		How to use ID code	By having the printer record information (product name, lot number, and measurer, etc) related to the weighing results in advance, that data can be printed whenever needed. * Press the 4 key to print the ID code.	

No.	Phenomenon, desired action	Remedy
11-4-16	Confirming the software version	 Confirm the software version by following the procedure below. 1) Turn the power of the printer off by using the power switch on the right side of the printer. 2) When the power of the printer is turned on again, the printer's display shows the software version temporarily. U1:85 24/06/17 (software version display) The example above shows software version "V1.05(24/06/17)".

11-5. Asking for repair

If improper performance persists after checking, contact the local A&D dealer for repair. The printer is a precision instrument. Use the original packing material for transportation.

12. Specifications

Printing method	Thermal type		
Character specifications	13 dots × 28 dots		
Character specifications	1.5(W) × 2.6(H) mm		
Number of characters printed	24 characters per line		
Operating temperature range	0 °C to 40 °C		
Operating humidity range	20 % to 85 %RH (No condensation)		
Storage temperature range	−10 °C to 50 °C		
Storage humidity range	10 % to 90 %RH (No condensation)		
Interface	RS-232C, current loop		
	Supplied to the AC adapter		
Power supply & AC adapter type	Confirm that the adapter type is correct for the local voltage and		
	power receptacle type.		
External dimensions	174(W) × 141(D) × 87(H) mm		
Weight	Approx. 500 g		
Accessories	Thermal printer paper for printers (1 pcs), AC adapter, AC adapter		
Accessories	labels, simplified instruction manual、RS-232C cable, power cable		

12-1. External dimensions





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IF

12-2. Sold separately

The	ermal paper for printers (5 pcs)	AX-PP147-S
	This is thermal paper of 57.5 mm width × Approx. 30 m leng	th.
Du	st-free thermal paper for printers (10 pcs) This is dust-free thermal paper that is available for use in cle 57 mm width × Approx. 25 m length	AX-PP183-S eanrooms.
RS	-232C cable (D-sub9 pin – 9 pin, 1 m)	AX-KO2741-100
RS	5-232C cable (D-sub9 pin – 9 pin, 2 m)	AX-KO2466-200
RS	-232C cable (D-sub25 pin – 9 pin, 0.9 m)	AX-KO2116-090
RS	-232C cable (D-sub25 pin – 9 pin, 2 m)	AX-KO1710-200
RS	-232C cable (DIN – 9 pin, 2 m)	AX-KO1786-200
Cu	rrent loop cable (DIN – 9 pin,1 m)	AX-KO5291-100

Foot switch

AX-SW138

□ By connecting the foot switch to the external input connector, functions assigned to the "External input 1 (EXT IN1IN1)" and "External input 2 (EXT IN2IN2)" of "Function settings (3=MODE)" can be performed.

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