AD-8920A REMOTE DISPLAY INSTRUCTION MANUAL

（日本語の取扱説明書は反対面をご覧ください。）　　1WMPD4001803C

1. Introduction

The AD-8920A is a remote display for displaying the weighing data transmitted by an A&D manufactured weighing instrument, using either RS-232C or current loop. Applicable weighing instruments (electronic balances/platform scales) are listed below.

■ What the package contains

- AD-8920A main unit　1 unit
- AC adapter　1 pc

⚠ CAUTION
Please confirm that the AC adapter type is correct for your local voltage and receptacle type.

- Identification label　2 pcs
  (one each for AC adapter and cable)
- Instruction manual　1 copy
- Communication cable　2 pcs *
  (approx. 1 m)

* A D-SUB25 cable and a D-SUB9 cable are included unless DIN cable is specified when ordering. In that case, only a single DIN cable is included.

■ Accessories (sold separately)

・Communication cable (approx. 5 m)

D-SUB9 cable	AX-KO3412-05M
D-SUB25 cable	AX-KO1864-05M
DIN cable	AX-KO3413-05M

・Communication cable (approx. 10 m)

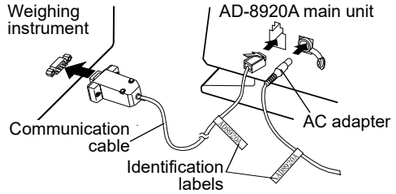
D-SUB9 cable	AX-KO3412-10M
D-SUB25 cable	AX-KO1864-10M
DIN cable	AX-KO3413-10M

Table 1　Applicable instruments, required options and cables (As of September 2018)

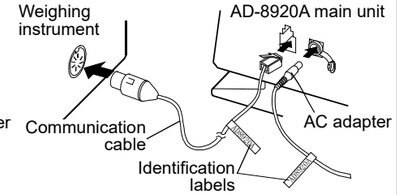
Weighing instrument	Using RS-232C		Using current loop	
	Option required	Communication cable	Option required	Communication cable
AD-4212A/B, GR	None	D-SUB25 cable	Not applicable	
BM, EK-i, EW-i, EK-L, FC-i, FX-i, FX-CT, FX-GD, FXi-WP, FZ-i, FZ-CT, FZi-WP, FZi-R, FZi-WPR, GX-A, GF-A, GX-M, GF-M, GH, HR-i, HR-A, HR-AZ	None	D-SUB9 cable	Not applicable	
EJ, EJ-B, HV-C, HW-C	OP-03	D-SUB9 cable	Not applicable	
ET-W, ET-WR	OP-03W	D-SUB25 cable	OP-05W	DIN cable
FG-KAM/KAL/KBM, FG-KAM/KAL/KBM-K	OP-23 or OP-24	DIN cable	Not applicable	
HC-i	OP-03	DIN cable	Not applicable	
FT	OP-04	D-SUB25 cable	None	DIN cable
FT-i, FT-i-K, SN, SN-K (excluding SN-KWP/KFP)	OP-05 or OP-08	D-SUB9 cable	OP-08	DIN cable
GX, GX-R, GF, GX-K, GX-KR, GF-K, GP, GP-R, MC	None	D-SUB25 cable	OP-04 or OP-06	DIN cable
HD	OP-03	D-SUB25 cable	OP-05	DIN cable
HR-200/120/60	OP-03	D-SUB25 cable	OP-03	DIN cable
HV-G, HW-G, HV-WP, HW-WP	None	DIN cable	Not applicable	
EK-AEP	AD-1611	D-SUB9 cable	Not applicable	

■ Connection diagram

When D-SUB9/D-SUB25 cable is used



When DIN cable is used



⚠ CAUTION

The D-SUB9 cable (standard or accessory) is for use only with the AD-8920A.
If used with an older AD-8920, it could blow the fuse or cause other damage to the weighing instrument.
Attach the identification label on the cable so that it will be used only with the AD-8920A.

2. Preparation

2-1. Setting the weighing instrument

(1) Set the data output mode to “Stream mode”.
(2) For the other settings, refer to Table 2.

Table 2　List of instrument settings

Item	Setting	Description
Data output mode	Stream mode	Outputs the weighing data continuously.
Baud rate	600, 1200, 2400, 4800, 9600 bps	AD-8920A recognizes the baud rate automatically.
Length, Parity bit	7 bits-even, 7 bits-odd, or 8	AD-8920A functions correctly with any one of those listed.
Stop bits	1 bit or 2 bits	AD-8920A functions correctly with either one.
Terminator	<CR> or <CR><LF>	AD-8920A functions correctly with either one.
Data format	A&D standard format	
CTS control	No control of CTS, RTS	
Output (hardware)	RS-232C or current loop	AD-8920A recognizes the output mode automatically.

Note) The available items depend on the weighing instrument and may not be available when the settings are fixed. For a detailed description of the settings, refer to the instruction manual for the weighing instrument used.

2-2. Connecting the AD-8920A

(1) Refer to Table 1 shown above to confirm that the communication cable is of the correct type.
(2) Disconnect the AC adapter from both the weighing instrument and the AD-8920A.
Refer to the connection diagram shown above to connect the AD-8920A to the weighing instrument, using the specified communication cable.

3. Display

3-1. Confirm that the AC adapter is of the correct type. Connect the AC adapter each to the weighing instrument and the AD-8920A to turn the power on.
All of the display segments of the AD-8920A illuminate, and then the weighing data transmitted from the weighing instrument appears. The status of the data is indicated by a triangle (▼).

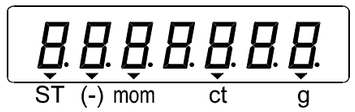


Table 3　Symbol (▼) and data status

Position of symbol (▼)	Status of weighing data
ST	The weighing data is stable.
(-)	The weighing data is negative. Usually the minus sign is placed before a numeric value, but for a 7-digit negative value, the symbol (▼) illuminates.
mom	The weighing unit is momme.
ct	The weighing unit is carat.
g	The weighing unit is gram.

Note: The unit indicating ▼ does not illuminate for weighing units other than those described above.

3-2. If the weighing data is overloaded, [E] or [-E] appears.
3-3. If the data receiving procedure is interrupted, [--------] or [ ] (blank) appears.
3-4. If the power is turned on without a weighing instrument connected, all of the display segments will remain illuminated.

4. Maintenance / Troubleshooting

4-1. Cleaning
For cleaning, wipe the AD-8920A with a soft cloth. Do not use solvents such as thinner.
4-2. If the display brightness is not even:
Turn the AD-8920A on without the weighing instrument connected. All of the display segments will illuminate. Leave the AD-8920A this way for a few hours.
4-3. If the AD-8920A does not function properly: (Before asking for repair, check the following.)

- Is the AC adapter type correct?
- Is the cable connected firmly?
- Are the weighing instrument settings correct?
  (Particularly, has the data output mode been set to stream mode, and the data format to A&D standard format?)
- Is data other than the weighing data, such as time or ID number, being output?

5. Specifications

Table 5-1　Specifications

Power consumption	Approx. 30VA supplied by the AC adapter (Approx. 8VDC, at approx. 0.2ADC supplied to the AD-8920A)
Display	7-digit VFD, Character height 13mm
Signal	RS-232C / Current loop (ACTIVE)
Baud rate	600, 1200, 2400, 4800, 9600 bps (Automatic recognition)
Length, Parity bit	7 bits-even, 7 bits-odd, 8 bits-none
Stop bits	1 bit or 2 bits
Terminator	<CR> or <CR><LF>
Display refresh rate	Approx. 20 times/second (when baud rate is 4800 bps or greater) ***1**
Input connector	Modular jack
Communication cable	Approx. 1 m ***2**
Dimensions	128(W)×102 (H)×76(D)　Unit: mm
Net weight	Approx. 230g ***3**
Operating environment	0 ºC to 40 ºC (32 ºF to 104 ºF), 85 %RH or less (No condensation)

Modular jack terminal No.

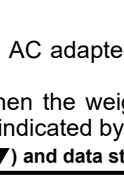


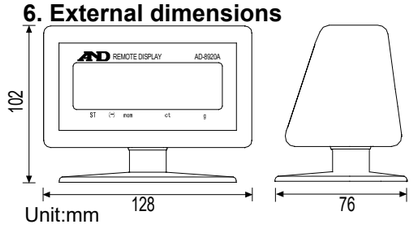
Table 5-2　Pin assignment

Pin No.	RS-232C	Current loop
2	RXD (Connects to the TXD output of the weighing instrument)	Current loop (+)
3	SG (Connects to SG)	Current loop (-)
1, 4	For power supply	

*1　With the condition that the weighing instrument transmits data 20 times per second.
*2　A special cable of approx. 5 m or 10 m is available.
*3　AC adapter and communication cable are not included.

Compliance with FCC rules
Please note that this equipment generates, uses and can radiate radio frequency energy. This equipment has been tested and has been found to comply with the limits of a Class A computing device pursuant to Subpart J of Part 15 of FCC rules. These rules are designed to provide reasonable protection against interference when equipment is operated in a commercial environment. If this unit is operated in a residential area, it may cause some interference and under these circumstances the user would be required to take, at his own expense, whatever measures are necessary to eliminate the interference. (FCC = Federal Communications Commission in the U.S.A.)

6. External dimensions



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