

AD-8118D

Thermal Printer

INSTRUCTION MANUAL



A&D Company, Ltd.

WARNING DEFINITIONS

The warnings described in this manual have the following meanings:

 WARNING	A potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	A potentially hazardous situation which, if not avoided, may result in minor or moderate injury or damage to the instrument.
Caution	Cautions to use the device correctly.
Note	Information useful for operating the device.
	This symbol indicates caution against electrical shock. Do not touch the part where the symbol is placed.
	This symbol indicates the ground terminal.
	This symbol indicates that an operation is prohibited.

About This Manual

- (1) No part of this manual may be reprinted, copied, modified, or translated to another language without the prior written consent of A&D Company, Limited (A&D).
- (2) The contents of this manual are subject to change without notice.
- (3) Please contact A&D if you notice any uncertainty, errors, omissions, etc. in this manual.
- (4) A&D bears no liability for any loss or lost profits due to the operation of this product, and for direct, indirect, special, or consequential damages resulting from any defect in this product or this manual, even if advised of the possibility of such damage. Furthermore, A&D assumes no liability for claims of rights from third parties. Concurrently, A&D assumes no liability whatsoever for software or data losses.

Contents

1. Introduction	5
1.1. Safety Precautions	5
2. Part Names	6
2.1. Front Panel.....	6
2.2. Rear Panel	7
2.3. Accessories.....	7
3. Installing the Printer Paper.....	8
4. Installing the Printer on the Control Panel.....	9
5. Connecting the Power Supply.....	10
6. Serial Input/Output.....	11
6.1. Terminal Arrangement.....	11
6.2. Communication Specifications	11
6.3. Connection Diagram.....	12
7. Control I/O	13
7.1. Terminal Arrangement.....	13
7.2. Connection Diagram.....	14
7.3. Input Functions.....	15
8. Operation Modes	16
9. Weighing Data Printing	18
9.1. Communication Formats	18
9.1.1. Examples of formats in which data can be received	18
9.1.2. Examples of formats in which data cannot be received	18
9.2. Print format.....	19
9.2.1. Editing the print format.....	19
9.2.2. Initializing the print format.....	20
9.2.3. Setting with enlarged character size	20
9.2.4. Print format setting example	21
9.3. Print Timing.....	23
9.3.1. Manual printing.....	23
9.3.2. Automatic printing.....	23
9.3.3. Interval printing.....	24
10. Addition, Total, Subtotal, Code Number.....	25

10.1. Addition	25
10.2. Total (Grand Total) Printing	26
10.3. Subtotal Printing	27
10.4. Code Number	28
11. Dump Printing	29
12. Error	30
13. Date and Time Settings	31
14. Check Mode	32
15. Initialization	33
16. Function Settings	34
17. Function List	35
18. Specifications	37

1. Introduction

The AD-8118D is a thermal printer designed for use with A&D indicators, scales, and electronic balances.

- Equipped with a 24-digit thermal printing mechanism.
- Features a built-in calendar clock that prints the date and time (backed up by a built-in lithium battery with an approximate lifespan of 10 years).
- Includes a statistical calculation function for each code.
- Stores totals and subtotals even when powered off.
- Interfaces via RS-232C or current loop (standard serial) input.
- Programmable print format.

1.1. Safety Precautions

Please read the following precautions carefully before using this product.

Design Precautions

WARNING

- Install an external safety circuit to ensure the entire system operates safely even if there is an abnormality in the external power supply or a malfunction of this product.

Installation Precautions

WARNING

- Never use this product in the following environments:
 - Where the temperature or humidity exceeds the specified range
 - Where corrosive or flammable gases are present
 - Where this product may come into contact with oil, chemicals, or water
- Before installing or removing this product, ensure all phases of the external power supply used by the system are shut off.

Wiring Precautions

WARNING

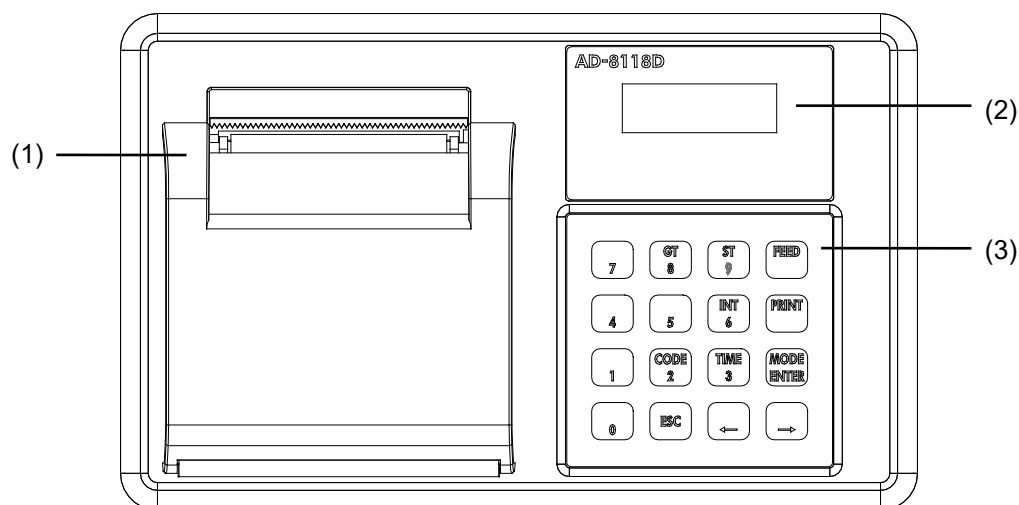
- Before performing any wiring work, ensure all phases of the external power supply used by the system are shut off.
- Ground this product's ground terminal.

CAUTION

- Control lines and communication cables must not be bundled with power lines or placed close to them.
- If the front panel becomes dirty, wipe it with a soft cloth lightly dampened with water. Do not use organic solvents such as benzene, thinner, or alcohol as they may cause deformation or discoloration.
- Suitable for use in environments with a pollution degree of 2 or less.
- Use at altitudes between 0 and 2000 meters.
- Connect external connection ports other than the AC power terminals and AC input/output terminals to circuits isolated from hazardous voltages using double or reinforced insulation.
- The overvoltage category of this product is Category II.

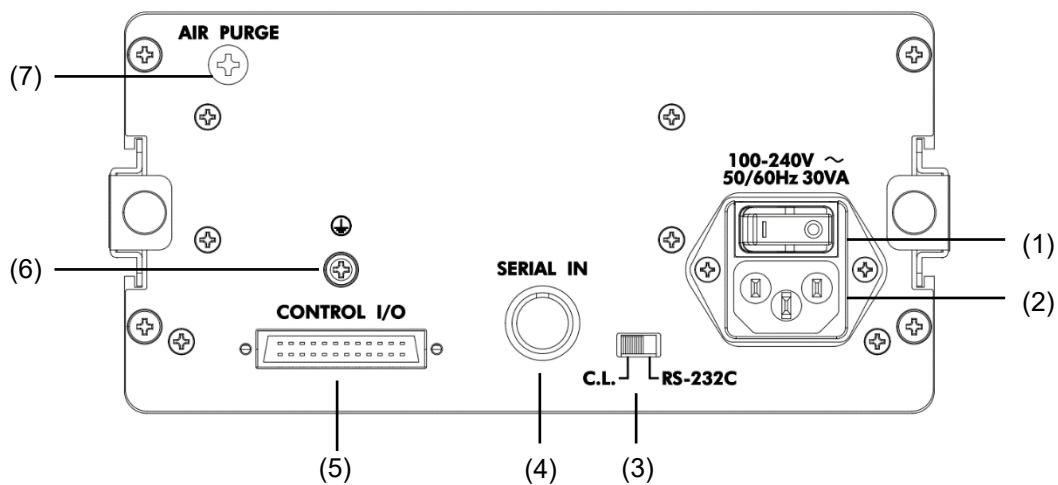
2. Part Names

2.1. Front Panel



No.	Name		
(1)	Printer		
(2)	Display		
(3)	Key switches	[FEED]	Feeds the paper.
		[PRINT]	Prints the weighing data.
		[MODE ENTER]	Switches to setting mode. Confirms the setting value when not in print mode.
		[ESC]	- Press with [PRINT] to cancel the previous addition. - Press with [GT 8] to clear the total and subtotal. - Cancels the selected value when not in print mode.
		[→]	Switches the display or moves the cursor to the right when not in print mode.
		[←]	Switches the display or moves the cursor to the left when not in print mode.
		[0]	Inputs 0 when not in print mode.
		[1]	Inputs 1 when not in print mode.
		[CODE 2]	Sets the code number. Inputs 2 when not in print mode.
		[TIME 3]	Prints the date and time. Inputs 3 when not in print mode.
		[4]	Inputs 4 when not in print mode.
		[5]	Inputs 5 when not in print mode.
		[INT 6]	Switches between the start and stop for interval printing. Inputs 6 when not in print mode.
		[7]	Inputs 7 when not in print mode.
		[GT 8]	Prints the grand total. Inputs 8 when not in print mode.
		[ST 9]	Prints the subtotal. Inputs 9 when not in print mode.

2.2. Rear Panel



No.	Name
(1)	Power switch
(2)	Power connector
(3)	Current loop input/RS-232C switch
(4)	Current loop input/output/RS-232C connector
(5)	Control I/O connector
(6)	Protective grounding terminal
(7)	AIR PURGE

2.3. Accessories

Name	A&D product number	Qty.
Power cable	*	1
Ground adapter	1ETMK-18	(1*)
Printer paper (1 roll included)	AX-PP147-S (Set of 5 rolls)	1
Rubber foot	110SJ-5023	4
Round DIN connector, 7 pins (soldered connection)	1JATCP0576	1
Control I/O connector case	1J1360C024-B	1
Control I/O connector (soldered connection)	1J1361J024-AG	1
Simplified Instruction Manual	1WMPD4005326	1

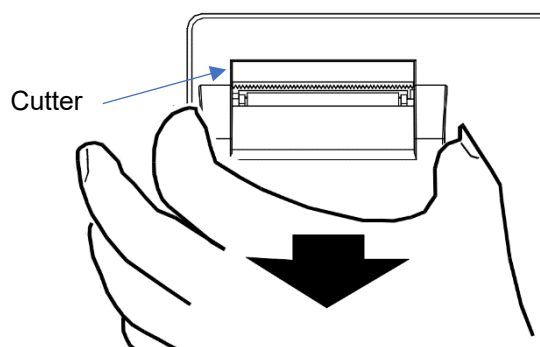
* Determined by the modification code.

Note: Recommended storage conditions for printer paper are 25°C and 65% RH or lower.

3. Installing the Printer Paper

Pull the cover to open it.

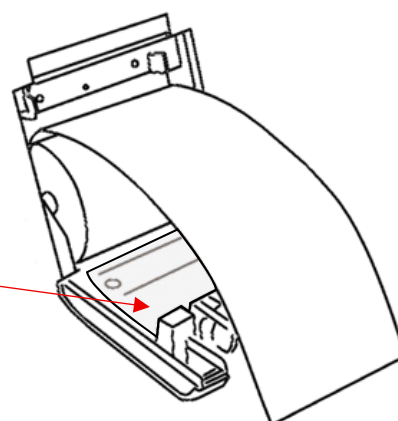
※There is a risk of touching the cutter when installing the printer paper. Please be careful to avoid injury.



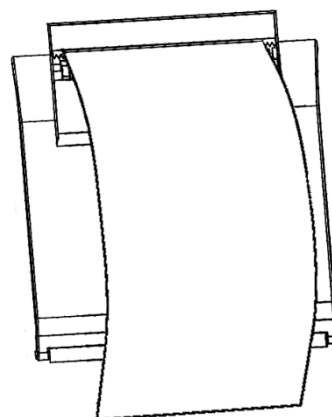
Place the printer paper face up.

※A paper jam prevention sheet is attached to prevent the printer paper from being caught. Do not remove it.

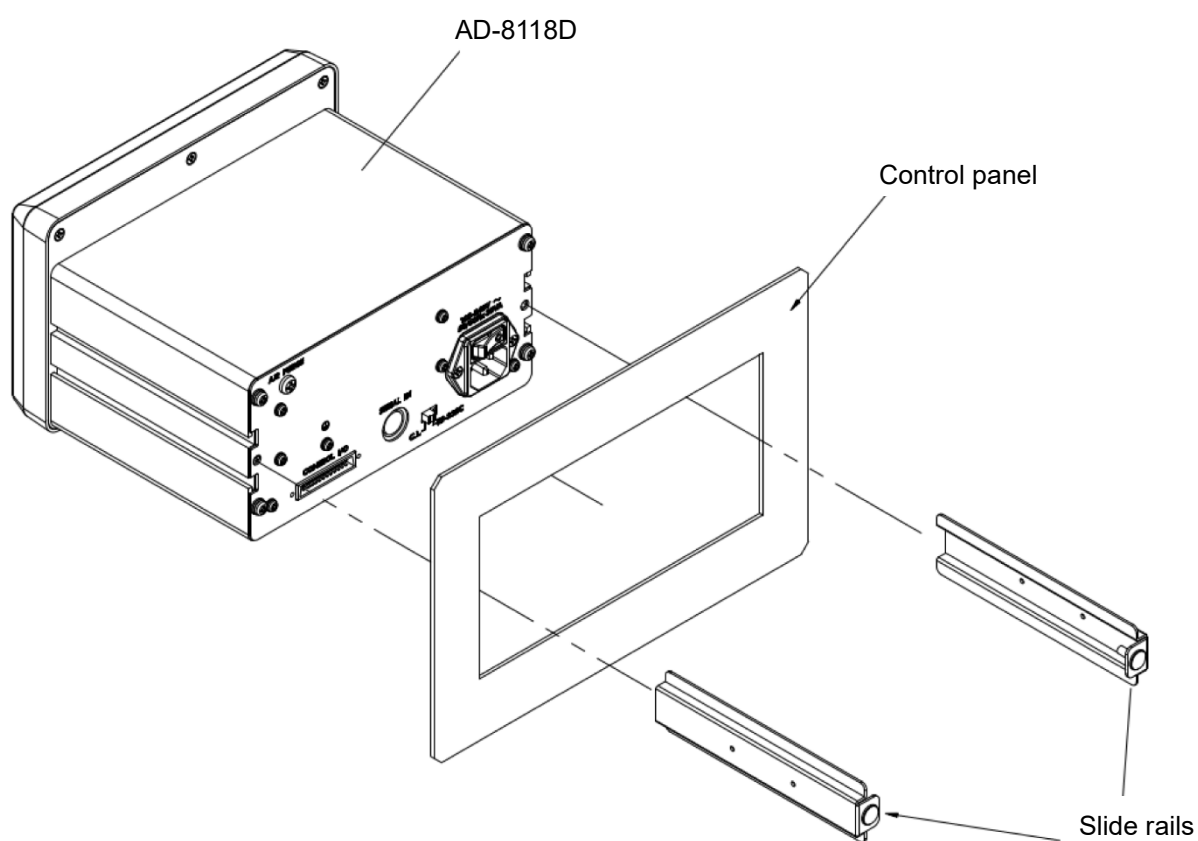
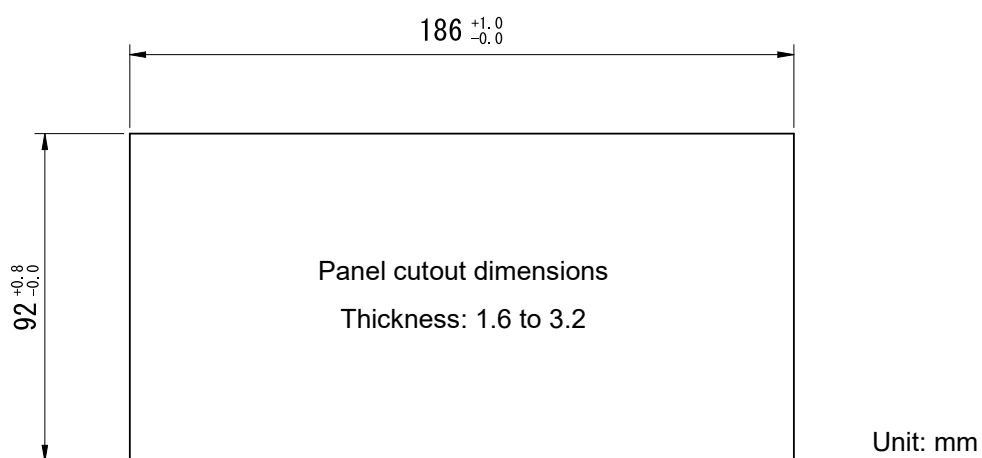
Paper jam prevention sheet



Close the cover.

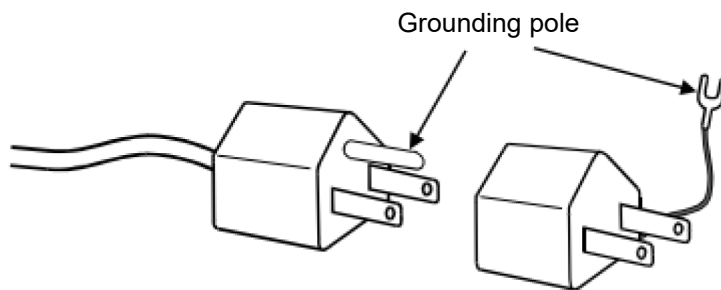


4. Installing the Printer on the Control Panel



5. Connecting the Power Supply

- ❑ Read this manual carefully before connecting the power.
- ❑ Do not turn on the power until installation is complete.
- ❑ To prevent electric shock, do not handle the power cable with wet hands.
- ❑ Ensure proper grounding. Avoid sharing the same ground, particularly with motors or other power equipment.
- ❑ The power supply should be in the range of 100 V to 240 V, with a frequency of 50 Hz or 60 Hz. Use a stable power source that is free from momentary interruptions and noise.
- ❑ Do not share power lines as doing so may cause malfunctions.
- ❑ If there is no three-pin outlet, use a grounding adapter. Ensure this product is grounded.

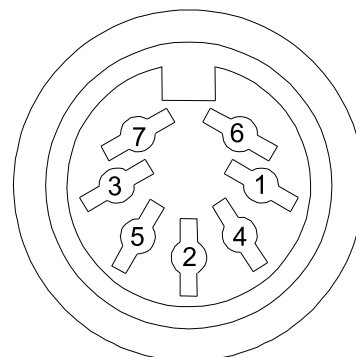


6. Serial Input/Output

6.1. Terminal Arrangement

No.	Description	
	Switch = C.L.	Switch = RS-232C
1	Current loop loopback output, non-polarized	
2	Chassis ground	
3	Current loop input	RS-232C input
4	Current loop loopback output, non-polarized	
5	GND	
6	NC	
7	NC	

SERIAL IN



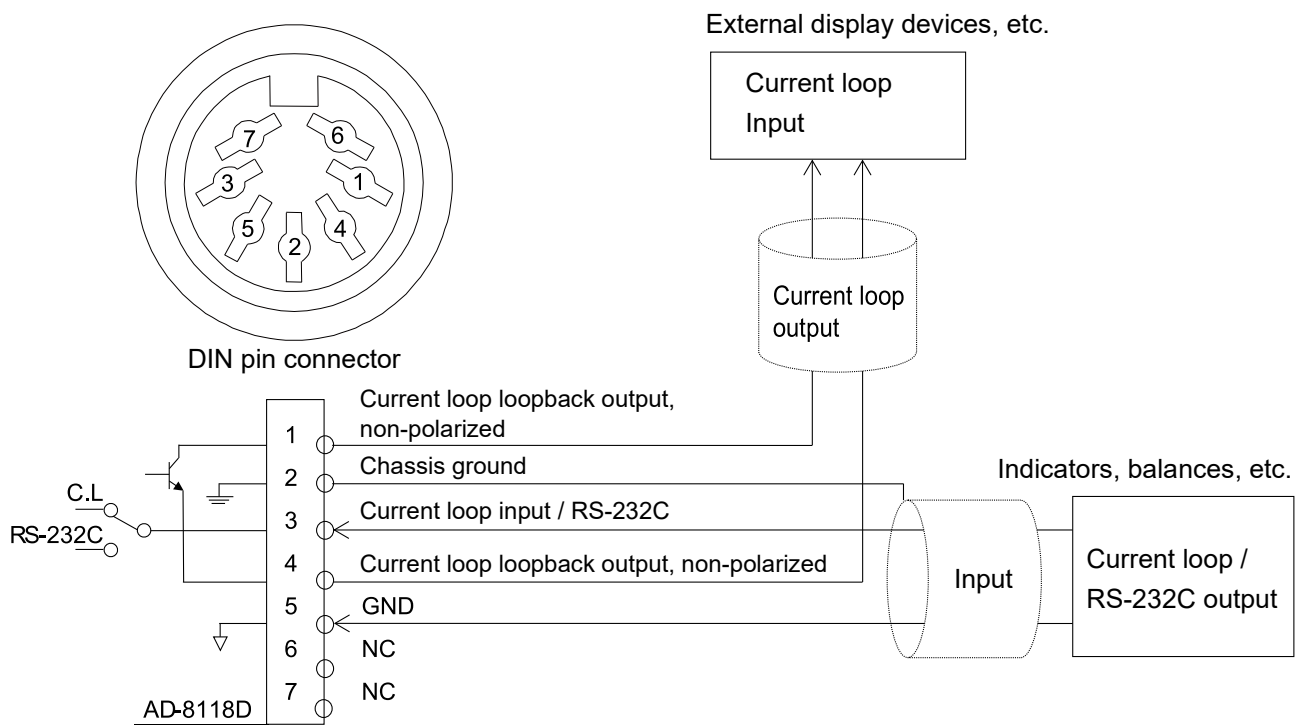
Follow the communication specifications of the connected device and select either C.L. (Current Loop) or RS-232C using the slide switch.

The current loopback output will return the data received from the Current Loop/RS-232C input as is.

6.2. Communication Specifications

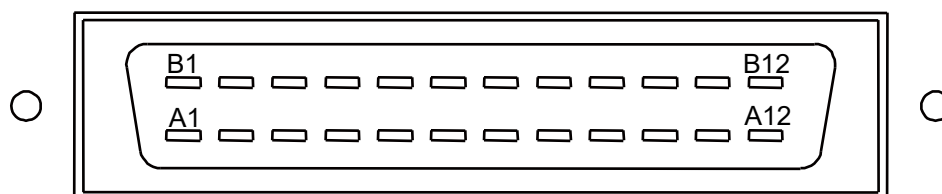
Signal level	RS-232C input	Current loop 0-20 mA input
Baud rate (F-1)	1: 600	Not configurable
	2: 1200	
	3: 2400 (default)	
	4: 4800	
	5: 9600	
	6: 19200	
	7: 38400	
Data length and parity (F-2)	1: 7 bits, even (default) / 2: 8 bits, none	
Start bit length	1 bit	
Stop bit length	1 bit	
Code	ASCII	
Termination character	CR LF	

6.3. Connection Diagram



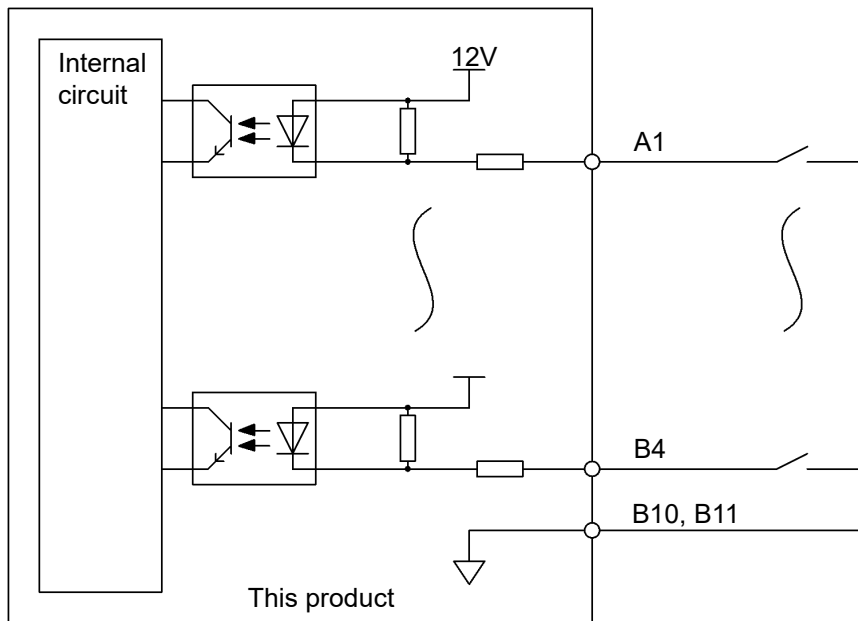
7. Control I/O

7.1. Terminal Arrangement



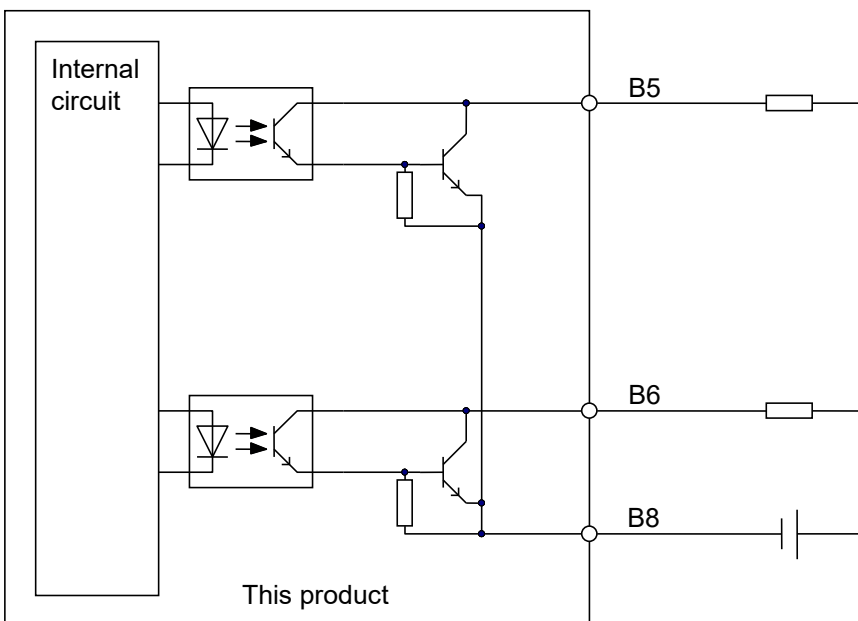
No.	Description	
A1	1	Code number input To use this function, set Code number input method (F-14) to 1: Control I/O (default = 3).
A2	2	
A3	4	
A4	8	
A5	10	
A6	20	
A7	40	
A8	80	
A9	Print command input	After inputting the command, prints and adds the data received within 3 seconds. To use this function, set Printing/addition timing (F-10) to 1: Manual printing, 2: Manual addition, 3: Manual addition printing.
A10	Paper feed command input	Advances the paper by one line.
A11	Subtotal print command input	Executes subtotal printing.
A12	Total print command input	Executes total printing.
B1	Total and subtotal clear command input	Clears total and subtotal, and prints "TOTAL CLEAR".
B2	Interval print on/off input	Switches interval printing on (start) / off (stop). When this terminal is on, on/off via key input is disabled.
B3	Previous addition cancel command input	Cancels the previous addition and prints "ADD DATA CANCEL".
B4	Clock print disable command input	Stops printing date and time. The [TIME] key remains enabled.
B5	Busy output	Turns on when the paper cover is open or the print buffer has 128 characters or less remaining. Discards received data when buffer is empty.
B6	Print announcement output	Turns on during printing operations. Ignores control input commands during this time.
B7	NC	
B8	Output COM	
B9	NC	
B10	Input COM	
B11	Input COM	
B12	Chassis ground	

7.2. Connection Diagram



Control input

- ON voltage: 1 V or less
- ON current: 3 mA or more
- OFF current: 1 mA or less



Control output

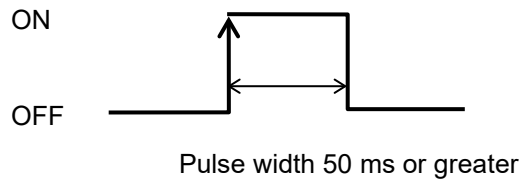
- Maximum load voltage: DC 30V
- Maximum load current: 50 mA/point
- Voltage drop when ON: 1 V or less
- Leakage current when OFF: 0.1 mA or less

7.3. Input Functions

Control input has edge detection and level detection.

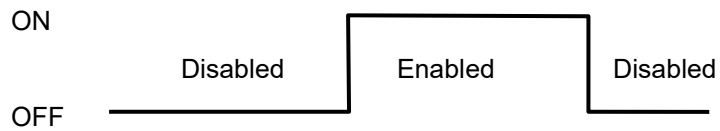
Edge detection

Functions when the input changes from OFF (open) to ON (shorted). The pulse width is 50 ms or greater.

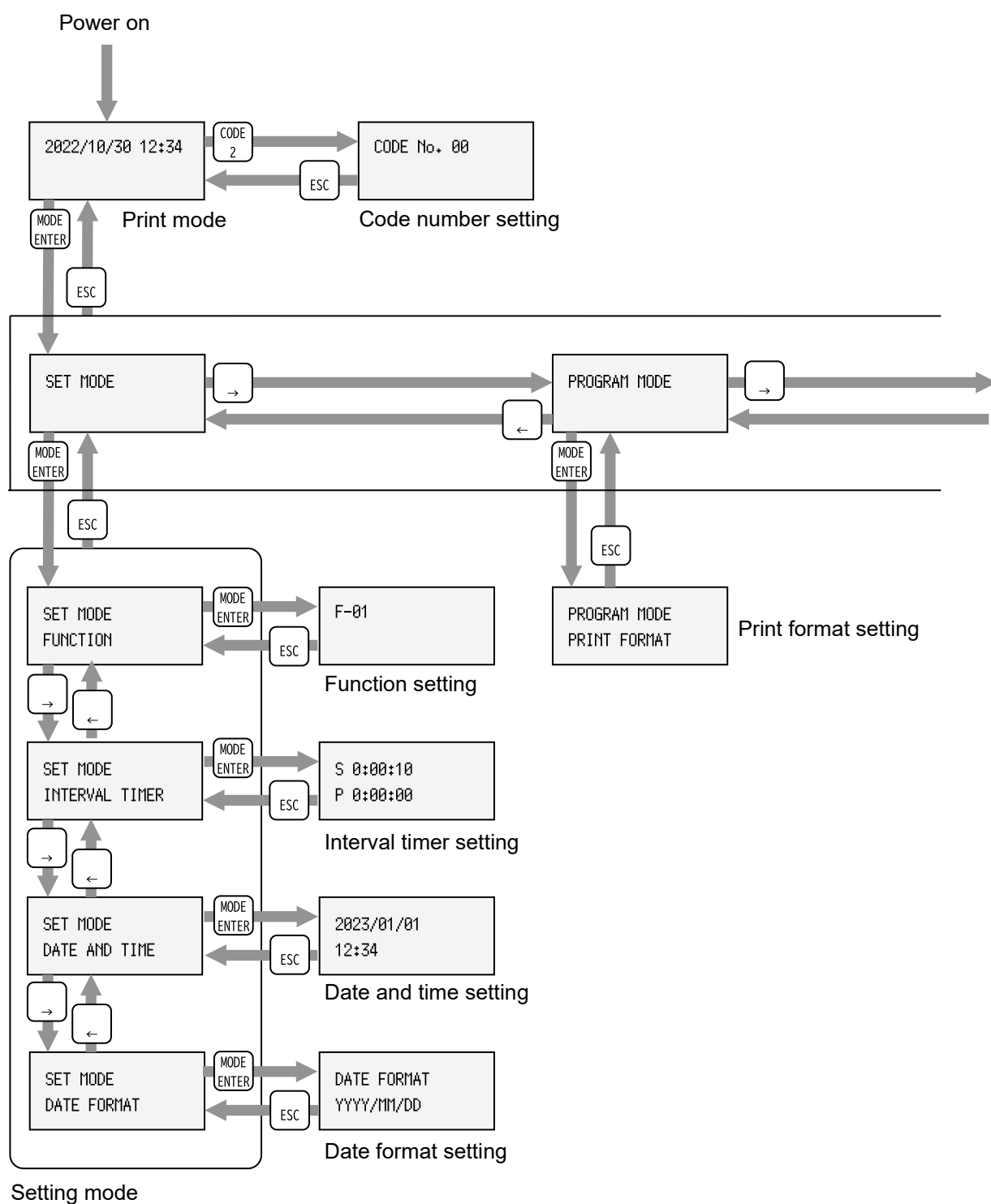


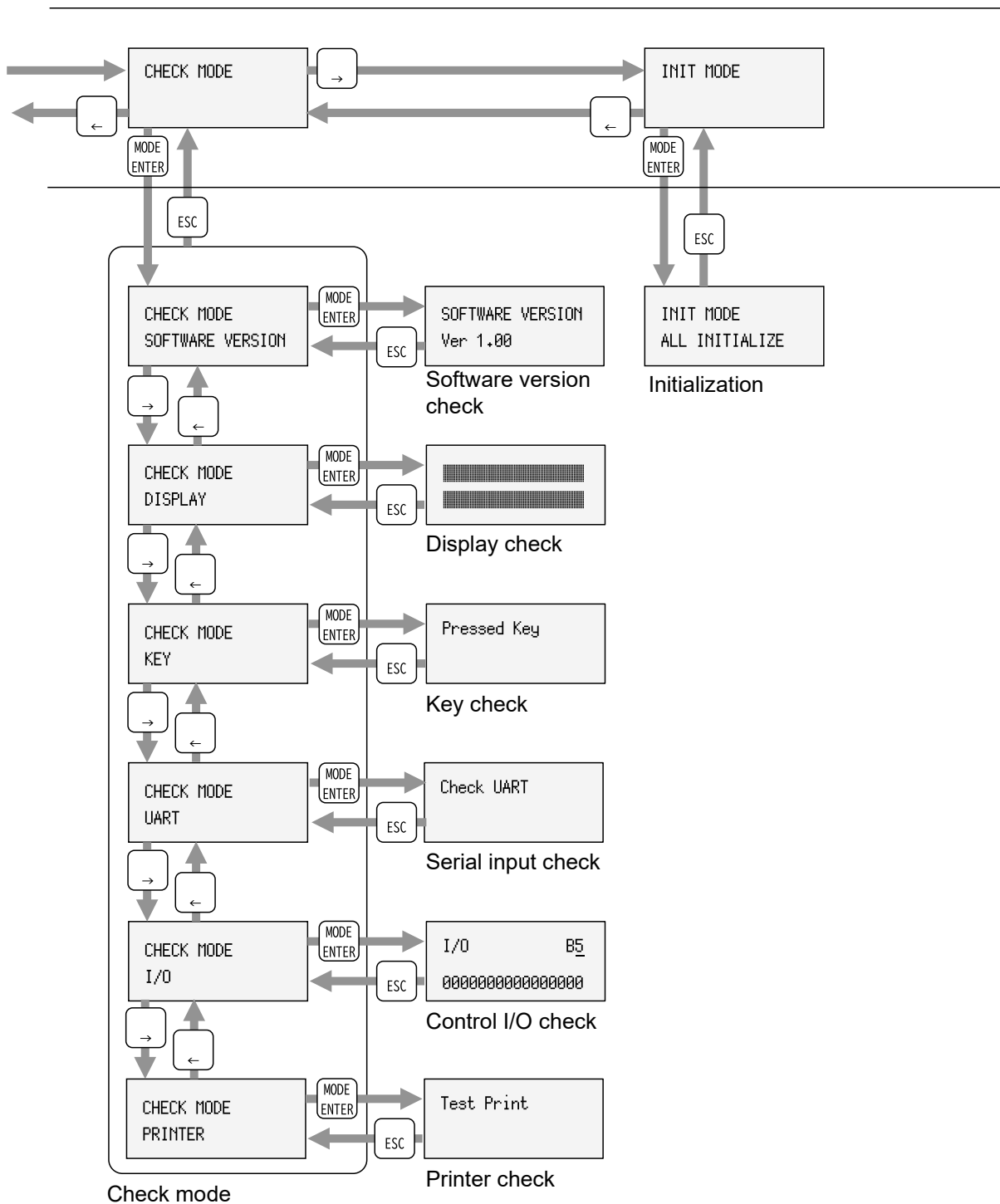
Level detection

Functions while the input is ON (shorted).



8. Operation Modes





9. Weighing Data Printing

The AD-8118D is a printer designed to receive data in the communication formats of A&D indicators, scales, and electronic balances, and print according to the specified print format.

9.1. Communication Formats

9.1.1. Examples of formats in which data can be received

Weighing indicator (AD-4401A/AD-4410)

Resizing indicator (S 440/VAE 440)																
Header 1		Header 2			Output data									Unit		Termination character
S	T	,	G	S	,	+	0	0	1	2	.	3	4	k	g	[CR][LF]

Weighing indicator, with code number (AD-4421/AD-4402)

Reigning indicator, with code number (X0 442 17X0 442 2)																				Unit		Termination character
Code number						Header 1				Header 2				Output data						Unit		Termination character
C	D	,	0	1	,	S	T	,	G	S	,	+	0	0	1	2	.	3	4	k	g	[CR][LF]

Digital indicator (AD-4531/AD-4532)

Header		Output data									Termination character
W	T	,	+	0	0	1	2	.	3	4	[CR][LF]

Balance/scale

Header			Output data										Unit			Termination character
S	T	,	+	0	0	1	2	.	3	4	5	[SP]	k	g	[CR][LF]	

9.1.2. Examples of formats in which data cannot be received

If data is in a format that cannot be received, an error message will be printed.

Weighing indicator, with address

Address		Header 1		Header 2		Output data									Unit		Termination character	
@	0 1	S	T	,	G	S	,	+	0	0	1	2	.	3	4	k	g	[CR][LF]

Digital Indicator, with unit

Header			Output data								Unit					Termination character
W	T	,	+	0	0	1	2	.	3	4	[SP]	[SP]	[SP]	k	g	[CR][LF]

Scale/Balance, with judgment

Header			Judgment result			Output data									Unit			Termination character
S	T	,	O	K	,	+	0	0	1	2	.	3	4	5	[SP]	k	g	[CR][LF]

9.2. Print format

The content to be printed follows the print format set in the program mode.

The default print format at factory setting is shown in the figure to the right.

```
2023/ 1/ 1 18:00
#12345 CD00 G      12.34kg
```

9.2.1. Editing the print format

Set the print format using the following key operations. Up to 24 characters can be set per line.

1. In print mode, press the [MODE | ENTER] key.

Select "PROGRAM MODE" using the [→] key, then press the [MODE | ENTER] key. Press the [ESC] key to return to the previous screen.

```
PROGRAM MODE
```

2. Press the [MODE | ENTER] key with "PROGRAM MODE PRINT FORMAT" displayed. Press the [ESC] key to return to the previous screen.

```
PROGRAM MODE
PRINT FORMAT
```

3. Select the number of the line to edit using the following key operations.

1-9	Enter the line number.
ENTER	Proceed to edit the selected line.
ESC	Return to the previous screen.
→	Proceed to initialize the print format.

```
Line1  2000/00/
00/_11:11:
```

```
Line1  2000/00/
00/_11:11:
```

4. Edit the print format using the following key operations.

ENTER	Save the set print format and return.
ESC	Cancel the set print format and return.
← + ESC	Clear the print format of the current line.
0	Enter the date. "2000/00/00/" will be displayed. 11 characters are required after the cursor.
1	Enter the time. "11:11:" will be displayed. 6 characters are required after the cursor.
2	Enter a hyphen.
3	Enter the code number. "CD33" will be displayed. 4 characters are required after the cursor.
4	Enter the print/addition count. "#44444" will be displayed. 6 characters are required after the cursor.
5	Enter the gross weight. "G 5555555kg" will be displayed. 12 characters are required after the cursor.
6	Enter the net weight. "N 6666666kg" will be displayed. 12 characters are required after the cursor.
7	Enter the tare weight. "T 7777777kg" will be displayed. 12 characters are required after the cursor.
8	Enter the weighing value. "88888888888g" will be displayed. 12 characters are required after the cursor.
9	Enter a space.

9.2.2. Initializing the print format

In the Line Number Selection screen, press the [→] key to proceed to print format initialization.

PRINT FORMAT
INITIALIZE

Initialize the print format using the following key operations.

- [1] Initializes to the print format shown in the figure to the right and performs a sample print.

2000/00/00/_11:11:
#44444_CD33_888888888kg

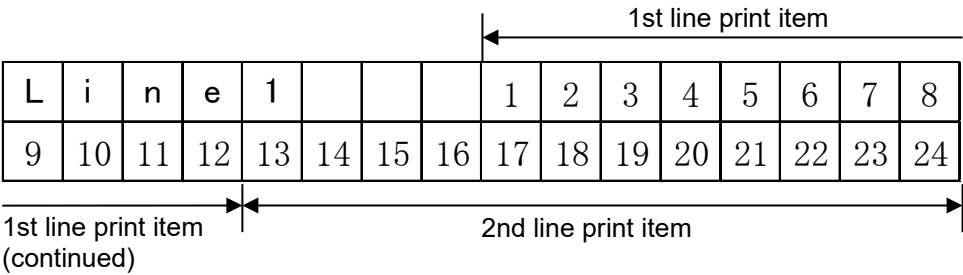
- [2] Initializes to the print format shown in the figure to the right and performs a sample print.

2000/00/00/_11:11:
#44444_____G 5555555kg
_____T 7777777kg
_____N 6666666kg

[ESC] Returns to the previous screen.

9.2.3. Setting with enlarged character size

When using the enlarged character size, the print items set in one line will be printed over two lines.



If the same content as "9.2.4 Print format setting example" is entered, the print format will be as follows.

2000/00/00/_
11:11:
#44444-CD33_
N 6666666kg

9.2.4. Print format setting example

The following steps explain how to set the print example.

2024/01/23/ 11:11
#00124-CD56_ N 0012345kg

1. On the Line Number Selection screen, press the [1] key to enter "1".

L	i	n	e	1						2	0	0	0	/	0	0	/
0	0	/	_	1	1	:	1	1	:								

2. Press the [MODE | ENTER] key to enter the editing screen for the 1st line (Line 1).

L	i	n	e	1						2	0	0	0	/	0	0	/
0	0	/	_	1	1	:	1	1	:								

3. Press the [←] key while pressing the [ESC] key to clear the currently set print format.

L	i	n	e	1													

4. Press the [0] key to add the date.

L	i	n	e	1						2	0	0	0	/	0	0	/
0	0	/	_														

5. Press the [ST | 9] key to add a space.

L	i	n	e	1						2	0	0	0	/	0	0	/
0	0	/	_														

6. Press the [1] key to add the time.

L	i	n	e	1						2	0	0	0	/	0	0	/
0	0	/	_	1	1	:	1	1	:								

7. Press the [MODE | ENTER] key to save the 1st line and return to the Line Number Selection screen.

L	i	n	e	2				#	4	4	4	4	4	_	C
D	3	3	_	8	8	8	8	8	8	8	8	8	8	8	k

8. Press the [MODE | ENTER] key to enter the editing screen for the 2nd line (Line 2).

L	i	n	e	2				#	4	4	4	4	4	4	_	C
D	3	3	_	8	8	8	8	8	8	8	8	8	8	8	k	g

9. Press the [←] key while pressing the [ESC] key to clear the currently set print format.

L	i	n	e	2													

10. Press the [4] key to add the print/addition count.

L	i	n	e	2						#	4	4	4	4	4	_

11. Press the [CODE | 2] key to add a hyphen.

L	i	n	e	2				#	4	4	4	4	4	_	-

12. Press the [TIME | 3] key to add the code number.

L	i	n	e	2				#	4	4	4	4	4	_	C
D	3	3													

13. Press the [ST | 9] key to add a space.

L	i	n	e	2				#	4	4	4	4	4	_	C
D	3	3	_												

14. Press the [INT | 6] key to add the net weight.

L	i	n	e	2				#	4	4	4	4	4	_	C
D	3	3	_	N			6	6	6	6	6	6	6	k	g

15. Press the [MODE | ENTER] key to save the 2nd line and return to the Line Number Selection screen.

L	i	n	e	3											

16. Press the [PRINT] key to confirm that the print content is correct.

2000/00/00/_11:11:

#44444-CD33_N 6666666kg

9.3. Print Timing

Select the print timing from the following three types:

- Manual printing: Prints when the [PRINT] key is pressed or when a print command is received from the control input.
- Automatic printing: Prints when weighing data is received from the connected device.
- Interval printing: Prints at set time intervals.

9.3.1. Manual printing

Printing occurs when the [PRINT] key is pressed or when a print command is received from the control input. If weighing data is not received within 3 seconds after pressing the key or receiving the command, an error will be printed.

Set the data output of the connected device to stream mode or to continuous data output such as periodic output.

The following settings are required to use this function:

- Set Print mode (F-3) to 1: Standard print mode (default = 1).
- Set Printing/addition timing (F-10) to 1: Manual printing or 3: Manual addition printing (default = 3).

For details, refer to “[10.1 Addition](#)”.

9.3.2. Automatic printing

Printing occurs when weighing data is received. Select this option if you want to print upon receiving a print command from the connected device.

Set the data output of the connected device to a mode other than stream mode or continuous data output, such as periodic output.

The following settings are required to use this function:

- Set Print mode (F-3) to 1: Standard print mode (default = 1).
- Set Print/addition timing (F-10) to 4: Automatic printing or 6: Automatic addition printing (default = 3).

For details, refer to “[10.1 Addition](#)”.

9.3.3. Interval printing

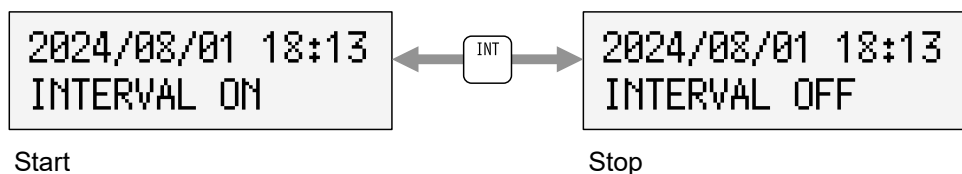
Interval printing occurs at set time intervals. Set the data output of the connected device to stream mode or to continuous data output such as periodic output.

The following settings are required to use this function:

- Set Print mode (F-3) to 2: Interval print mode (default = 1).
- Set Print/addition timing (F-10) to 4: Automatic printing or 6: Automatic addition printing (default = 3).

For details, refer to “[10.1 Addition](#)”.

Pressing the [INT | 6] key switches between the start and stop for interval printing and resets the elapsed time. After power is turned on, interval printing is in the stopped state.



Interval Timer Setting

Set the interval timer using the following key operations. The interval timer requires setting the silent time (S) (default = 0:00:10) and the print time (P) (default = 0:00:00). The default setting prints once every 10 seconds.

Example 1: To print continuously for 10 minutes after 1 hour, 10 minutes, and 10 seconds, set S to 1:10:10 and P to 0:10:00. After 10 minutes of printing, another 10-minute round will start again in 1 hour, 10 minutes, and 10 seconds. This operation repeats.

Example 2: To print once every hour, set S to 1:00:00 and P to 0:00:00.

1. In print mode, press the [MODE | ENTER] key.

Select "SET MODE" with the [→] key, then press the [MODE | ENTER] key. Select "INTERVAL TIMER" with the [→] key, then press the [MODE | ENTER] key

```
SET MODE  
INTERVAL TIMER
```

2. Set the silent time (S) (default = 0:00:10) and the print time (P) (default = 0:00:00) with the following key operations:

[→]:	Move the cursor to the right.
[←]:	Move the cursor to the left.
[0]–[9]:	Enter numbers.
[MODE ENTER]:	Save the entered settings and return to "SET MODE INTERVAL TIMER".
[ESC]:	Cancel the entered settings and return to "SET MODE INTERVAL TIMER".

```
S 0:00:10  
P 0:00:00
```

10. Addition, Total, Subtotal, Code Number

10.1. Addition

The AD-8118D adds the received weighing data and stores it as totals and subtotals. The subtotal is cleared to "0" when the subtotal print is executed. The total is not cleared even when the total print is executed. Both the subtotal and total are not cleared even when the power is turned off.

To use the addition function, the following settings are required:

- Set Print mode (F-3) to 1: Standard print mode or 2: Interval print mode (default = 1).
- Set the Print/addition timing (F-10) to 3: Manual addition printing or 6: Automatic addition printing (default = 3).

Refer to ["9.3 Print Timing"](#) for details on print mode and print operation.

Canceling the previous addition

Press the [ESC] key while pressing the [PRINT] key to cancel the previous addition. After canceling the addition, the printing of the text shown on the right will be executed. If the addition cancellation fails, it will not be printed.



ADD CANCEL

Clearing total and subtotal

Press the [ESC] key while pressing the [GT | 8] key to clear the total and subtotal. After clearing, the printing of the text shown on the right will be executed.



TOTAL CLEAR

Selecting data for addition

When connecting multiple peripheral devices such as external displays, select the addition target (F-12) when the weighing indicator sends the gross weight, net weight, and tare weight.

- 1: Add gross weight, net weight, and tare weight
- 2: Add gross weight
- 3: Add net weight
- 4: Add tare weight

10.2. Total (Grand Total) Printing

Press the [GT | 8] key to print the total. The total stored internally will not be cleared after printing.

To use the total function, set Total function (F-30) to 1: Enabled (default = 1).

Limits for total and printing/additon count

The upper limit for the total is 999999999, and the lower limit is -999999999. (With three decimal places, the limit is 999999.999)

The upper limit for the printing/addition count is 99999.

If the limit is exceeded, "Err Total overflow" will be printed.

Total print format

To print totals by code number, set Total by code number (F-31) to 1: Enabled (default = 1).

To print total statistics, set Total statistics print (F-34) to 1: Enabled/Sample standard deviation or 2: Enabled/Population standard deviation (default = 0: Disabled).

Print examples

GRAND TOTAL		
2023/ 1/ 1 18:00		
CD 1	1T	Total by code number Printed when Total by code number (F-31) is enabled.
	100000kg	
CD10	2T	
	200000kg	
CD99	3T	Total Printed every time.
	300000kg	
-----		Statistical results Printed when Total statistics print (F-34) is enabled. The print content includes the following: MAX: Maximum addition value MIN: Minimum addition value AVE: Average value σ _{n-1} : Sample standard deviation (when F-34 = 1) σ: Population standard deviation (when F-34 = 2) R: Difference between the maximum and minimum addition values
6T	600000kg	
MAX	105000kg	
MIN	95000kg	
AVE	100000kg	
σ _{n-1}	3162kg	
R	10000kg	

10.3. Subtotal Printing

Press the [ST | 9] key to print the subtotal. The subtotal data stored internally will be automatically cleared after printing.

To use the subtotal function, set Subtotal function (F-20) to 1: Enabled (default = 1).

Limits for subtotal value and printing/addition count

The upper limit for the subtotal is 999999999, and the lower limit is -999999999. (For three decimal places, the limit is 999999.999)

The upper limit for the printing/addition count is 99999.

If the limit is exceeded, "Err Total overflow" will be printed.

Subtotal print format

To print subtotals by code number, set Subtotal by code number (F-21) to 1: Enabled (default = 1).

To print subtotal statistics, set Subtotal statistics print (F-24) to 1: Enabled/Sample standard deviation or 2: Enabled/Population standard deviation (default = 0: Disabled).

Print examples

SUB TOTAL	
2023/ 1/ 1 18:00	
CD 1	1T
	100000kg
CD10	2T
	200000kg
CD99	3T
	300000kg

6T	600000kg
MAX	105000kg
MIN	95000kg
AVE	100000kg
σ_{n-1}	3162kg
R	10000kg

Subtotal by code number

Printed when Subtotal by code number (F-21) is enabled.

Addition results

Printed every time.

Statistical results

Printed when Subtotal statistics print (F-24) is enabled.
The print content includes the following:

MAX: Maximum addition value

MIN: Minimum addition value

AVE: Average value

σ_{n-1} : Sample standard deviation (when F-24 = 1)

σ_n : Population standard deviation (when F-24 = 2)

R: Difference between the maximum and minimum addition values

10.4. Code Number

The AD-8118D assigns a code number (00–99) to the received weighing data and can print subtotals and totals by code number.

Select Code number input method (F-14) from the following options:

- 1: Control I/O Follows the code number input from the Control I/O.
- 2: Received data Follows the code number of the received data.
- 3: Key input (default) Follows the code number set on this device.

Setting code number with Code number input method (F-14) = 3: Key

1. In print mode, press the [CODE | 2] key.

CODE No 00

2. Set the code number using the following key operations:

[→]:	Move the cursor to the right.
------	-------------------------------

[←]:	Move the cursor to the left.
------	------------------------------

[0]–[9]:	Enter numbers.
----------	----------------

[MODE ENTER]:	Save the settings and return.
-----------------	-------------------------------

[ESC]:	Cancel the settings and return.
--------	---------------------------------

CODE No 00

CODE No 09

11. Dump Printing

This function prints received data as it is received.

2024/01/01 12:34
DUMP MODE

The following settings are required to use this function:

- Set Print mode (F-3) to 3: Dump print mode (default = 1).

The printable characters are as follows:

		Upper 4 bits															
Lower 4 bits	HEX.NO	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
	0	NUL		(SP)	0	@	P	—	p	μ	⊥						
	1			!	1	A	Q	a	q	—	T						
	2			"	2	B	R	b	r	—	⌋						
	3			#	3	C	S	c	s	—	⌋						
	4			\$	4	D	T	d	t	—	—						
	5			%	5	E	U	e	u	—	—						
	6			&	6	F	V	f	v	—							
	7			'	7	G	W	g	w	—							
	8			(	8	H	X	h	x								
	9			)	9	I	Y	i	y		⌋						
	A	LF		*	:	J	Z	j	z		⌋						
	B		ESC	+	;	K	[	k	{								
	C			,	<	L	¥	l	l	—	⌋						
	D	CR		—	=	M	]	m	}	—	⌋						
	E			·	>	N	^	n	~	—	⌋						
	F			/	?	O		o	Σ	+	⌋						

The valid control codes in Dump print mode are as follows:

Control code	Description
0x0D	Prints the received data up to that point.
0x0E	Enlarges the character size from this code onwards. Canceled upon receiving 0x0D or 0x14.
0x14	Cancels the enlargement and returns to standard character size.
0x1B	When 0x1B + 0x44 is received, prints the date. When 0x1B + 0x54 is received, prints the time.

12. Error

The following shows the print content when an error occurs.

Error print	Description	Response after error occurrence
Err Time-out	When the print timing is set to Manual printing (F-10 = 1/2/3), data was not received within 3 seconds after pressing the [PRINT] key.	Please check the communication settings and the connection status of the connected device.
Err Unit mismatch	The unit of the received data differs from the previous data.	Please check the unit settings of the connected device or clear the totals and subtotals.
Err D.P. mismatch	The decimal point position of the received data differs from the previous data.	Please check the decimal point settings of the connected device or clear the totals and subtotals.
Err Total overflow	The totals or subtotals exceed 999999999, or the printing/addition count exceeds 99999 times.	Please clear the addition results.
Err Overload	The received data is over the limit.	Please check the weighing platform of the connected device.
Err Format	The received data contains an unreceivable format.	Please check the communication settings of the connected device.
Err Unstable (F-5)	The received data is unstable or negative.	Please check the output value. Change the setting for Printing negative/unstable data (F-5).
Err Printer overflow	The received data buffer is exceeded.	Please check the communication settings of the connected device and the Printing/addition timing (F-10) settings.
Err CODE No	When Code number input method (F-14) is Control I/O, a value other than 00-99 was entered.	Please check the input value of the Control I/O.
Err LOW BATTERY	The internal battery level is low, and the calendar clock may have been reset.	Please consult your local dealer with a description of the symptoms.

Hardware error

If an error appears after powering on, this product may be malfunctioning.

Please consult your local A&D dealer with a description of the symptoms.

Err H01

13. Date and Time Settings

1. In print mode, press the [MODE | ENTER] key.
Select "SET MODE" with the [→] key, then press the [MODE | ENTER] key.
Select "DATE AND TIME" with the [→] key, then press the [MODE | ENTER] key.

SET MODE
DATE AND TIME

2. Set the date and time using the following key operations.
(Changing the date format setting does not change the order)

2024/01/01 12:34

[→]:	Move the cursor to the right.
[←]:	Move the cursor to the left.
[0]–[9]:	Enter numbers.
[MODE ENTER]:	Save the settings and return.
[ESC]:	Cancel the settings and return.

Date format settings

1. In print mode, press the [MODE | ENTER] key.
Select "SET MODE" with the [→] key and press the [MODE | ENTER] key.
Select "SET MODE" with the [→] key and press the [MODE | ENTER] key.

SET MODE
DATE FORMAT

2. Set the date format using the following key operations.

[→]:	Select the date format from the following:
[←]:	YYYY/MM/DD
	MM/DD/YYYY
	DD/MM/YYYY
[MODE ENTER]:	Save the settings and return.
[ESC]:	Cancel the settings and return.

YYYY/MM/DD

14. Check Mode

Software version check

The software version is displayed.

Display check

Press the [MODE | ENTER] key to switch between all lights on and all lights off.

Key check

Press a key to display the corresponding indicator as follows:

[7]=SW1, [8]= SW2, [9]= SW3, [FEED]=SW4, [4]=SW5, [5]=SW6, [6]=SW7, [PRINT]=SW8, [1]=SW9, [2]=SW10, [3]=SW11, [MODE]=SW12, [0]=SW13, [ESC]=SW14, [←]=SW15, [→]=SW16

Serial check

When ST, GS, +0008118kg is received, "Get 8118" is displayed.

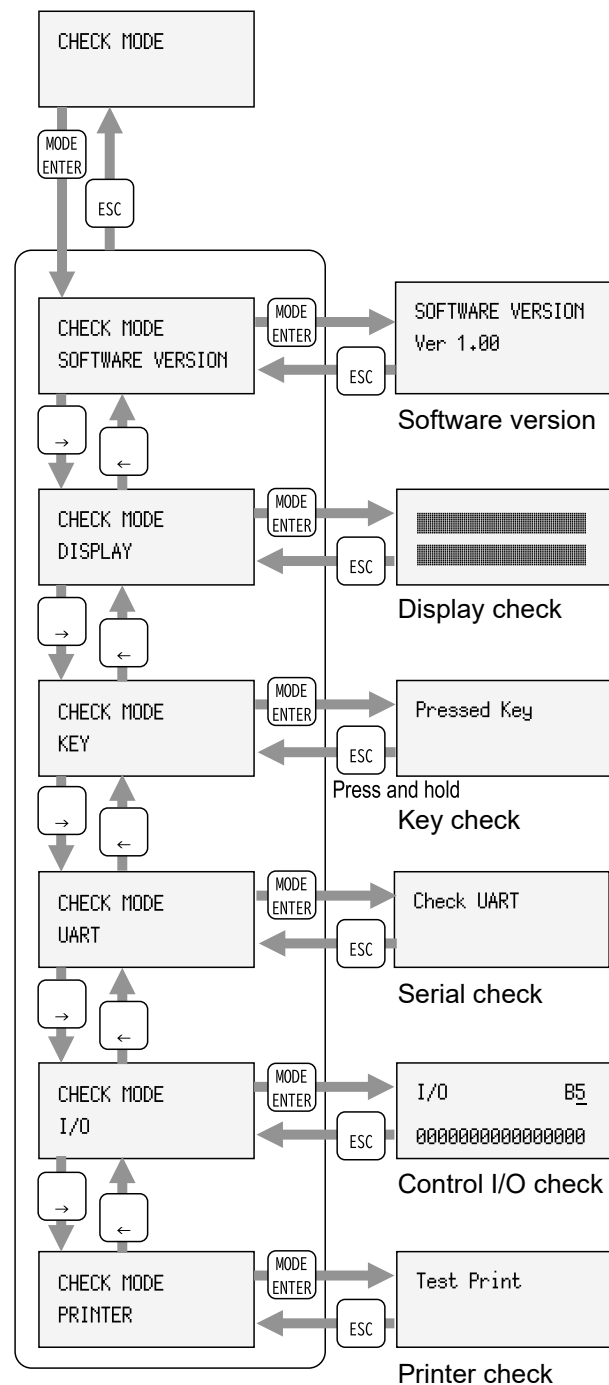
Control I/O check

Press the [5] key to turn on B5, and the [6] key to turn on B6.

The lower row will show 1 when there is input, corresponding to A1-12 and B1-4 from left to right.

Printer check

Press the [MODE | ENTER] key to print printable characters.



15. Initialization

The following steps will initialize the function settings, print format, interval time settings, code numbers, subtotals, and totals:

2024/01/01 12:34

1. In print mode, press the [MODE | ENTER] key.

SET MODE

2. Use the [←] key to select "INIT MODE", then press the [MODE | ENTER] key.

INIT MODE

Press the [ESC] key to return to print mode.

3. Press the [MODE | ENTER] key to initialize and return to print mode.

INIT MODE
ALL INITIALIZE

Press the [ESC] key to return to the previous screen.

16. Function Settings

Use the following steps to configure the operation of this product:

1. In print mode, press the [MODE | ENTER] key.

2024/01/01 12:34

2. Select "SET MODE" with the [→] key and press the [MODE | ENTER] key.

Press the [ESC] key to return to print mode.

SET MODE

3. In "SET MODE FUNCTION," press the [MODE | ENTER] key.

Press the [ESC] key to return to the previous screen.

SET MODE
FUNCTION

4. Use the following operations to select the function number to set:

[0] – [9]:	Enter the function number.
[MODE ENTER]:	Move to the entered function number.
[ESC]:	Returns to the previous screen.
[→]:	Move the cursor to the right.
[←]:	Move the cursor to the left.

F-01

5. Use the following operations to set the function:

[0] – [9]:	Enter numbers.
[MODE ENTER]:	Save the settings and return.
[ESC]:	Cancel the settings and return.

F-01 1
600bps

17. Function List

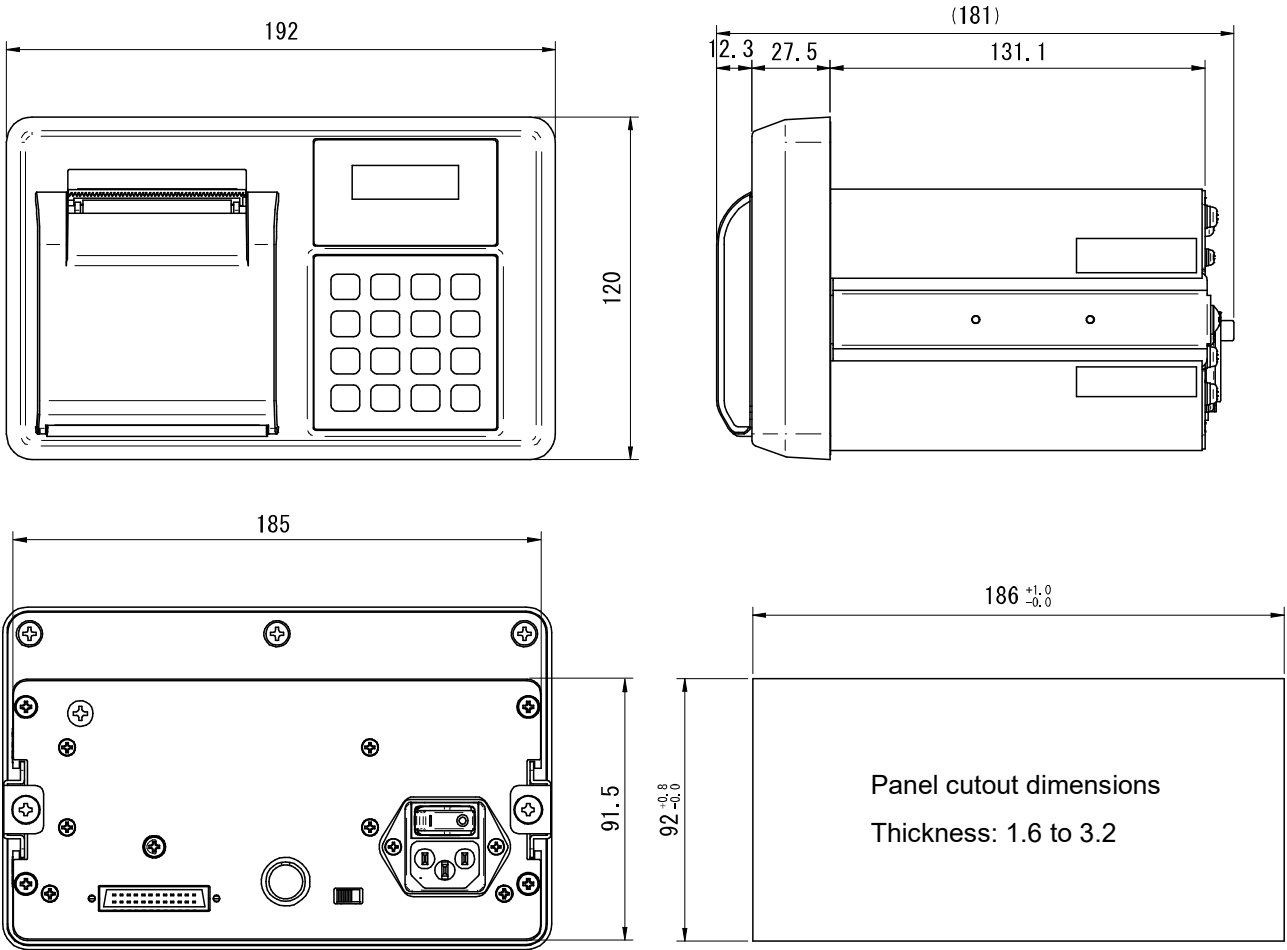
F-	Setting item	Setting value	Default	User setting value
1	Serial input Baud rate	1: 600 bps 2: 1200 bps 3: 2400 bps 4: 4800 bps 5: 9600 bps 6: 19200 bps 7: 38400 bps	3	
2	Serial input Data length, Parity	1: 7 bits, Even 2: 8 bits, None	1	
3	Print Mode	1: Standard Print Mode 2: Interval Print Mode 3: Dump Print Mode	1	
4	Printing mode	1: Normal characters 2: Inverted characters	1	
5	Printing negative/unstable data	0: Disabled 1: Enabled	1	
6	Character size	1: Standard characters 2: Enlarged characters (double width)	1	
7	Key input	0: Prohibited 1: Allowed	1	
8	Number of lines fed after printing	0-9 Note: Due to the characteristics of the printer, one line feed is always performed before printing. Therefore, even if the number of lines fed after printing is set to 1, there will be a gap of 2 lines when printing continuously.	1	
9	Reserved internally			
10	Printing/addition timing	1: Print on command, do not add (Manual printing) 2: Do not print on command, add (Manual addition) 3: Print on command, add (Manual addition printing) 4: Print when received, do not add (Automatic printing) 5: Do not print when received, add (Automatic addition) 6: Print when received, add (Automatic addition printing)	3	
11	Receiving conditions when receiving gross weight, net weight, and tare weight from weighing indicator	1: Receive gross, net, and tare weights 2: Receive only gross weight, ignore other data 3: Receive only net weight, ignore other data 4: Receive only tare weight, ignore other data	1	
12	Addition target when receiving gross weight, net weight, and tare weight from weighing indicator	1: Add gross, net, and tare weights 2: Add gross weight 3: Add net weight 4: Add tare weight	1	
13	Reserved internally			
14	Code number input method	1: Control I/O 2: Received data 3: Key (Code number setting)	3	
15	Reserved internally			
16	Polarity and header printing	0: Disabled 1: Enabled	1	
17	Reserved internally			

F-	Setting item	Setting value	Default	User setting value
18	Print Date/Time conditions	1: Print only when addition count = 1 2: Print every time	2	
19	Reserved internally			
20	Subtotal function	0: Disabled 1: Enabled	1	
21	Subtotal by code number	0: Disabled 1: Enabled	1	
22-23	Reserved internally			
24	Printing subtotal statistics	0: Disabled 1: Enabled/Sample standard deviation (n-1) 2: Enabled/Population standard deviation (n)	0	
25-29	Reserved internally			
30	Total (grand total) function	0: Disabled 1: Enabled	1	
31	Total (grand total) by code number	0: Disabled 1: Enabled	1	
32-33	Reserved internally			
34	Printing total (grand total) statistics	0: Disabled 1: Enabled/Sample standard deviation (n-1) 2: Enabled/Population standard deviation (n)	0	

18. Specifications

External dimensions	192(W) × 181(D) × 120(H) mm
Installation method	Panel mounting
Operating temperature and humidity range	5 to 40°C, 80% RH or less, no condensation
Power supply	
Power supply voltage	100 to 240 V AC +10%/-15% 50/60 Hz ±5%
Maximum apparent power	25 VA
Inrush current	100 V AC: 15 A or less 230 V AC: 35 A or less
Fuse	Internal (not user-replaceable)
Printer	
Printing system	Thermal printer (direct thermal printing)
Printing width	Standard character: 12 × 24 dots, 24 columns/line Enlarged character: 24 × 24 dots, 12 columns/line
Character size	Standard character: 1.5 (W) × 3.0 (H) mm Enlarged character: 3.0 (W) × 3.0 (H) mm
Printing speed	Approx. 4.0 lines/sec
Display	LCD display, 16 columns, 2 lines (Character width: 1.86 × height 4.56 mm)
Key switches	16
External input/output	
Serial input	Current loop input/RS-232C
Serial output	Current loop output
Non-voltage contact input	16 points
NPN open collector output	2 points

External Dimensions



Unit: mm

THIS PAGE INTENTIONALLY LEFT BLANK.



A&D Company, Limited

3-23-14 Higashi-Ikebukuro, Toshima-ku, Tokyo 170-0013, JAPAN
Telephone: [81] (3) 5391-6132 Fax: [81] (3) 5391-1566

A&D ENGINEERING, INC.

Headquarters Office: 4622 Runway Boulevard, Ann Arbor, Michigan 48108, U.S.A.
Sales Office: 47747 Warm Springs Boulevard, Fremont, California 94539, U.S.A.
Tel: [1] (800) 726-3364 Weighing Support: [1] (888) 726-5931 Inspection Support: [1] (855) 332-8815

A&D INSTRUMENTS LIMITED

Unit 24/26 Blacklands Way, Abingdon Business Park, Abingdon, Oxfordshire OX14 1DY United Kingdom
Telephone: [44] (1235) 550420 Fax: [44] (1235) 550485

A&D AUSTRALASIA PTY LTD

32 Dew Street, Thebarton, South Australia 5031, AUSTRALIA
Telephone: [61] (8) 8301-8100 Fax: [61] (8) 8352-7409

A&D KOREA Limited

한국에이.엔.디(주)

서울특별시 영등포구 국제금융로6길33 (여의도동) 맨하탄빌딩 817 우편 번호 07331
(817, Manhattan Bldg., 33. Gukjegeumyung-ro 6-gil, Yeongdeungpo-gu, Seoul, 07331 Korea)
전화: [82] (2) 780-4101 팩스: [82] (2) 782-4264

ООО A&D RUS

ООО "Эй энд Ди Рус"

Почтовый адрес: 121357, Российская Федерация, г. Москва, ул. Верейская, дом 17
Юридический адрес: 117545, Российская Федерация, г. Москва, ул. Дорожная, д.3, корп.6, комн. 86
(121357, Russian Federation, Moscow, Vereyskaya Street 17)
тел.: [7] (495) 937-33-44 факс: [7] (495) 937-55-66

A&D Instruments India Private Limited

ऐ&डी इन्स्ट्रुमेंट्स इण्डिया प्रा० लिमिटेड

D-48, उद्योग विहार , फेस -5, गुडगांव - 122016, हरियाणा , भारत
(D-48, Udyog Vihar, Phase-V, Gurgaon - 122016, Haryana, India)
फोन : [91] (124) 4715555 फैक्स : [91] (124) 4715599

A&D SCIENTECH TAIWAN LIMITED.

艾安得股份有限公司

台灣台北市中山區南京東路2段206號11樓之2
(11F-2, No.206, Sec.2, Nanjing E.Rd., Zhongshan Dist., Taipei City 10489, Taiwan, R.O.C.)
Tel : [886](02) 2322-4722 Fax : [886](02) 2392-1794

A&D INSTRUMENTS (THAILAND) LIMITED

บริษัท เอ แอนด์ ดี อินสตรูमेंท์ (ไทยแลนด์) จำกัด

168/16 หมู่ที่ 1 ตำบลรังสิต อำเภอธัญบุรี จังหวัดปทุมธานี 12110 ประเทศไทย
(168/16 Moo 1, Rangsit, Thanyaburi, Pathumthani 12110 Thailand)
Tel : [66] 20038911