AD-8125

Label Printer

INSTRUCTION MANUAL

A&D Company, Limited

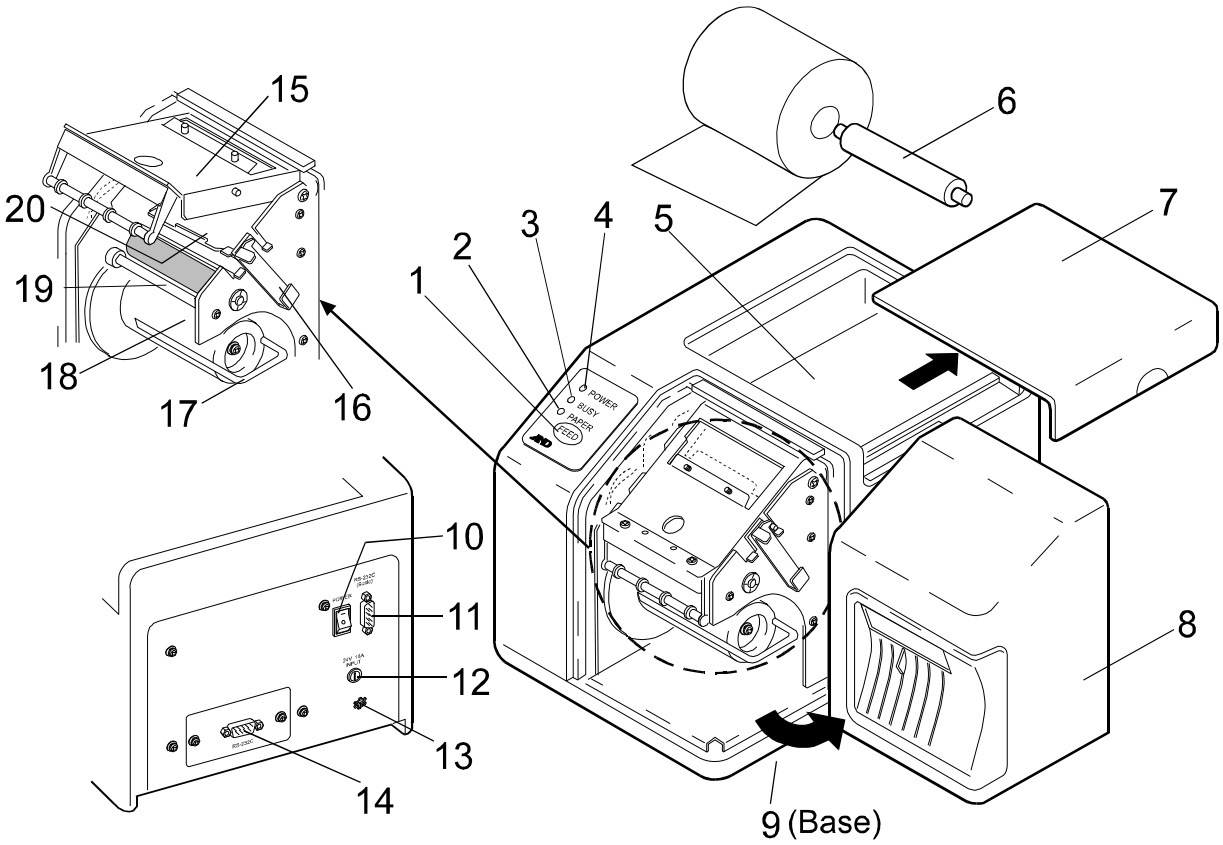
WM+PD4000812

CONTENTS

1. INTRODUCTION

The AD8125 is a label printer for weighing instruments, including the FC-***i*** / FC-S***i*** series counting scales manufactured by A&D.
In order to connect the printer, an RS-232C interface option is necessary.
The printer can provide labels showing information relating to the date, ID number, product name, weight, quantity and unit weight for items measured using the FC-***i*** / FC-S***i*** series scales. The ID number, weight, quantity and unit weight can also be printed in barcode form.
The printer can be set to print labels sized 58 mm (width) by 34, 40 or 46 mm (length).
If the UFC function on the weighing instrument is used, the positioning of the printed data can be changed, and your own design in letters can be inserted in the blank space.

2. PART NAMES

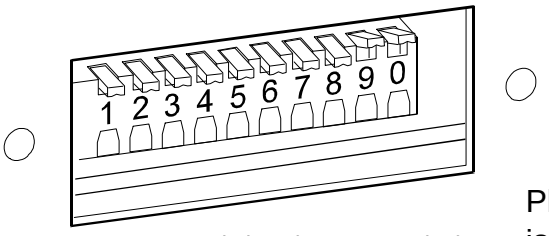


No.	Part name	Description
1	FEED key	Feeds the paper by the amount of one label.
2	PAPER LED	Flashes when the paper has run out.
3	BUSY LED	Indicates the communications status with a scale or a personal computer.
4	POWER LED	Illuminates when the power is turned on.
5	Paper holder	
6	Paper roll core	
7	Paper cover	
8	Front cover	
9	DIP switches	Sets various functions.
10	POWER switch	Turns the power on and off.
11	RS-232C connector for scale	Connects to a scale.
12	AC adapter jack	
13	Ground terminal	
14	Reserve connector	Not available
15	Head installation area	
16	Head securing fixture	
17	Paper securing fixture	
18	Paper take-up core	
19	Label peeling bar	
20	Paper guide	

3. PREPARATION

3-1. The DIP Switch Functions

The DIP switch assembly for the settings is located on the base of the printer.
The switch assembly is protected by a white plastic cover. Open the cover with a screwdriver.



DIP switches (Factory setting)

Please note that DIP switch No.10 is labeled as 0.

Before changing the DIP switch settings, be sure to turn the power off.

DIP Switch Settings

Baud rate between the printer and the scale		
Speed	Switch No.	Comments
	1	
2400 bps	OFF	Factory setting
9600 bps	ON	

Label length			
Length	Switch No.		Comments
	2	3	
34 mm	OFF	OFF	Factory setting
40 mm	ON	OFF	
46 mm	OFF	ON	
UFC setting	ON	ON	

Barcode data selection (Type of barcode is Code 39 only.)				
Barcode data	Switch No.			Comments
	4	5	6	
No barcode	OFF	OFF	OFF	Factory setting
ID code (Header is 'ID')	ON	OFF	OFF	The barcode is printed in the format that the FC-*i* / S*i* scale can accept.
Weight (Header is 'WT')	OFF	ON	OFF	
Quantity (Header is 'QT')	ON	ON	OFF	
Unit weight (Header is 'UW')	OFF	OFF	ON	
Tare (Header is 'TR')	ON	OFF	ON	
Not in use	OFF	ON	ON	
Not in use	ON	ON	ON	

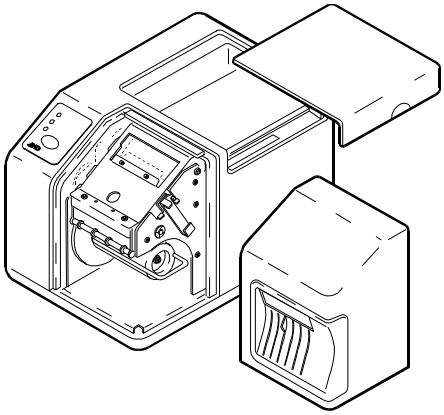
Data format		
Data bit / Parity	Switch No.	Comments
	10	
7 bits / Even parity	OFF	
8 bits / Non parity	ON	Factory setting

Keep these switches as shown.	Switch No.			Comments
	7	8	9	
Internal use	OFF	OFF	ON	Factory setting

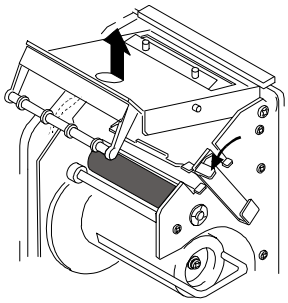
3-2. Loading the Paper

Load the paper in the printer as follows:

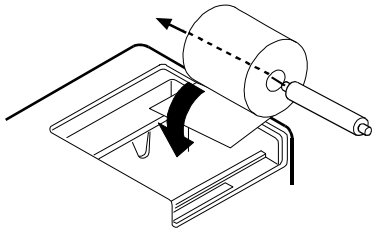
1. Remove the front cover and the paper cover from the printer.



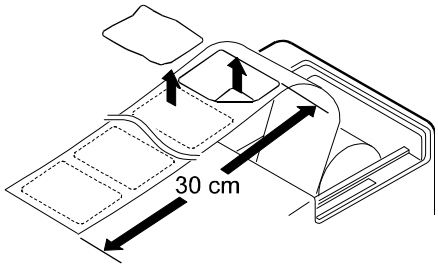
2. Release the head securing fixture to raise the print head.



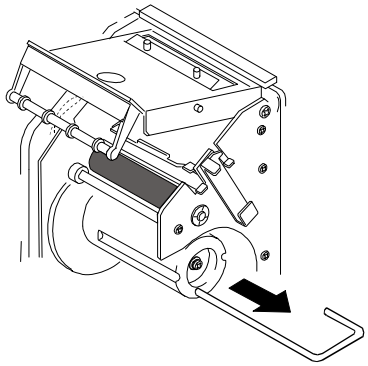
3. Attach the roll core to the paper. Place the paper in the paper holder as shown.



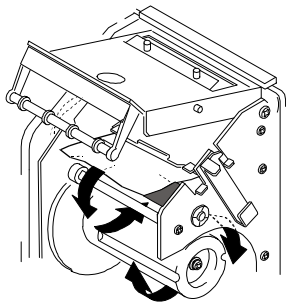
4. Remove the labels from the first 30 cm of the paper.



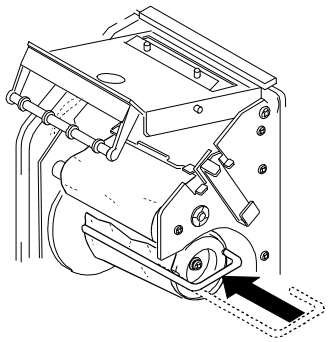
5. Remove the paper securing fixture from the paper take-up core.



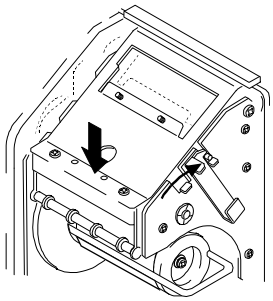
6. Thread the paper through the paper guide, fold the paper at the label peeling bar and place the paper on the paper take-up core.



7. Secure the paper using the paper securing fixture. Pull the paper edge by hand so that no slack exists in the paper.

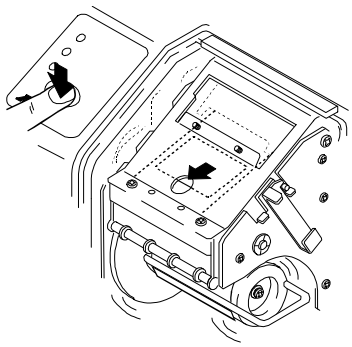


8. Secure the print head using the head securing fixture. If any labels remain near the print head, remove them.

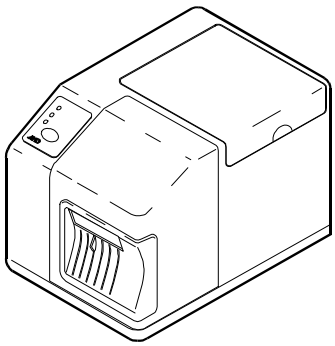


9. Turn the POWER switch on.

10. Press the FEED key several times to eject one label.



11. Reinstall the front cover and the paper cover.



12. If the label printing position is incorrect, restart the printer.

4. USING THE PRINTER

4-1. Weighing Settings

Set the weighing instrument to enable use of the label printer as follows.

1. The baud rate, data format, data category, data output method, etc. on the weighing instrument must be set. Please see the instruction manual of the weighing instrument in use.

2. An example of printing settings for ID number, product name, quantity, weight and unit weight for the FC-***i*** / FC-S***i*** series counting scale (connected to standard serial output) follows.

a. Output mode (Key mode)	F-6-1=0
b. Output data selection	F-6-2=01111
c. Format	F-6-3=2
d. Baud rate	F-6-4=0
e. Character / Parity, 8 bits / Non parity	F-6-5=2

Use a D-sub 9 pin cable (straight type) to connect with an FC-***i*** / FC-S***i*** scale.
Option cable: AX-KO2466-200, D-sub 9 pin, 2 m

4-2. Basic Printing

This is the method for basic operation when the weighing instrument is connected to the label printer.
The label length can be either 34 mm, 40 mm or 46 mm.
The received data is printed in the order that it is received from the top left of the label.
Barcodes can be printed of data specified in the DIP switch settings.

The example that follows is for the same FC-***i*** / FC-S***i*** series counting scale mentioned in the preceding example.

1. Set the DIP switch located on the base of the printer.

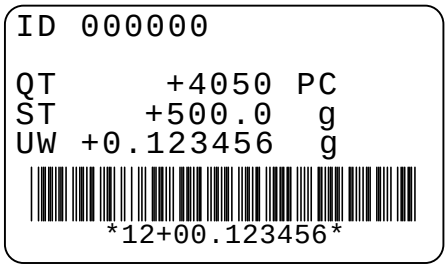
Baud rate	SW-1	OFF
Label length (34 mm)	SW-2	OFF
	SW-3	OFF
Barcode data (Unit weight)	SW-4	OFF
	SW-5	OFF
	SW-6	ON
Data bit / Parity (8 bits / Non parity)	SW-10	ON
(Internal use	SW-7	OFF)
(Internal use	SW-8	OFF)
(Internal use	SW-9	ON)

Note: The type of barcode is Code 39 only, and the barcode is printed in the format that the FC-*i* / FC-S*i* scale can accept.

2. Set the functions for the counting scale. (See 4-1 above)

3. Conduct measurement using the counting scale and press the “PRINT” key to print the label.

Printing example



4-3. Applied Printing

This function can be used with counting scales in the FC-***i*** / FC-S***i*** series program versions 2.10 onwards which have a UFC function.
If the UFC function is used, the positioning of the printed data can be changed, and your own design in letters can be inserted in the blank space.

To use with this function, set DIP switches 2 and 3 to ON (UFC setting).

Format of received data

1. Character string printout
   Enter a capital C at the start when printing the data as a character string.

   C,xx,yy,s,dddddd

   C: Print the received ASCII code as characters.
   xx: Start line of printing in column 1 or 2 (Depends on the size of the label. For a 34 mm label this can be from 1 ~ 7)
   yy: Start column of printing from column 1 or 2 (Maximum 18)
   s: Letter size
   1 Standard (3 mm tall)
   2 Large (Double height size)
   d: Data
   ASCII code character string using English letters, numbers and symbols.

2. Barcode printout
   Enter a capital B at the start when printing the data in barcode form.

   B,xx,yy,c,n,dddddd

   B: Print the received ASCII code as a barcode.
   xx: Start line of printing in column 1 or 2 (Depends on the size of the label. For a 34 mm label this can be from 1 ~ 7)
   yy: Start column of printing from column 1 or 2 (Maximum 18)

C: Type of barcode
- 1 JAN/EAN-13
- 2 Code 39
- 3 UPC-A
- 4 UPC-E
- 5 Codabar (NW-7)
- 6 Matrix 2 of 5
- 7 ITF (Interleaved 2 of 5)

n: Print human readable code
- 0 No
- 1 Yes

d: Data
ASCII code to print as a barcode using numbers and English letters (Depends on the type of barcode).

3. Initiating Printout

P,n

P: Stop receiving data and start printer.
n: Number of printouts from 1 to 9

4. Label Size

L,xx

L: Specify length of label. Once the label size has been set, it will stay in the memory either until the DIP switch is used to select a non-UFC setting, or the next time this “L command” is used.
xx: Set the length of the label from 28 mm to 62 mm (by 1 mm).

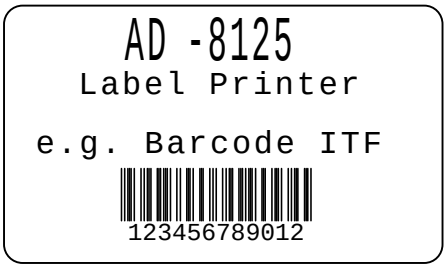
When using the “L command”, turn the power off once and turn on again to work with new label size.

Printing example

Received data:

```
C,1,7,2,AD-8125
C,3,4,1,Label Printer
C,5,2,1,e.g. Barcode ITF
B,6,6,7,1,123456789012
P,1
```

Printing example:



5. MAINTENANCE

5-1. Cleaning the Printer

Clean the printer periodically to maintain the optimum performance of the printer.

Print head: Wipe lightly using a cotton swab moistened with alcohol.

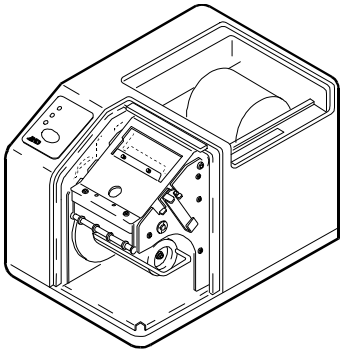
Other parts: Wipe lightly using a dry lint-free cloth to remove paper dust.

5-2. Removing the Paper Guide

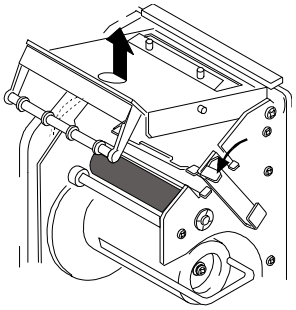
If a label sticks inside of the printer, remove the paper guide to get to the label.

Remove the paper guide as follows:

1. Remove the front cover and the paper cover from the printer.

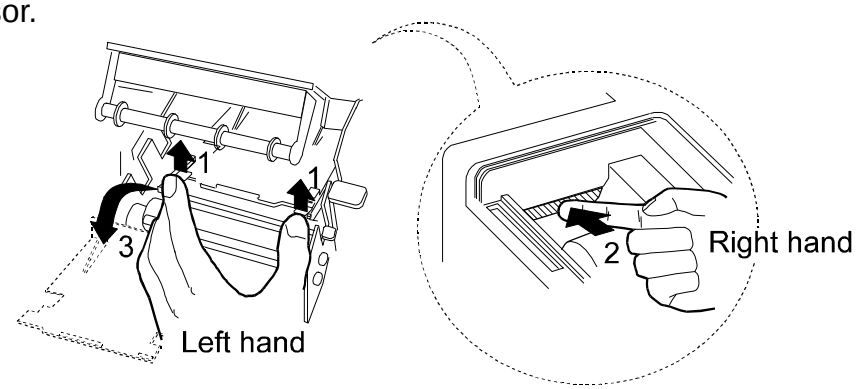


2. Release the head securing fixture to raise the print head.

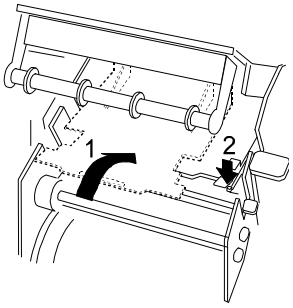


3. Raise both ends of the paper guide as shown below, release the catch, and push lightly from behind to slide the paper guide forward.

4. Pull the paper guide out front while taking care not to touch the paper sensor.



5. To reinstall the paper guide, slide it in until the rear end reaches the printer casing while taking care not to touch the paper sensor, then hook on the catch to secure the paper guide in place.



6. SPECIFICATIONS

6-1. General

Power supply:	24VDC, 2.5A
Power consumption:	Standby: 10VA Printing: 60VA (when the printing rate is 50%)
Operating temperature range:	5?C to 40?C, Non condensing
External dimensions:	178(W) x 242(D) x 158(H) mm, excluding the protrusions
Weight:	Approx. 3.3 kg

6-2. Printing

Printing method:	Direct thermal line dot type
Effective printing width:	56 mm
Printing density:	8 dots / mm
Printing speed:	80 mm / second max.
Barcode type:	Code 39 When used with the UFC function: JAN/EAN-13, UPC-A/E, Code 39, Codabar (NW-7), Matrix 2 of 5, ITF (Interleaved 2 of 5)

6-3. Interface

Transmission system:	RS-232C	
Transmission form:	Asynchronous, half duplex	
Transmission rate:	2400 bps, 9600 bps	
Data format:	Start bit	1 bit
	Data / Parity	7 bits / Even or 8 bits / None
	Stop bit	1 bit
	Code	ASCII
Connector:	D-Sub 9 pin (male)	

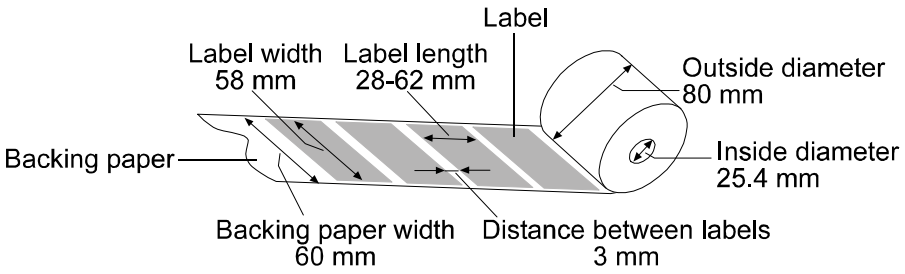
Pin connection

Signal table for printer connectors		
Pin No.	Signal name	Description
1	NC	
2	RXD	Input
3	TXD	Output
4	DTR	Output
5	GND	
6	DSR	Input
7	RTS	Output
8	CTS	Input
9	NC	

Note: To connect the FC-*i* / FC-S*i* scale to the printer, use a straight type cable.
Option cable: AX-KO2466-200, D-sub 9 pin, 2 m

6-4. Label Printer Paper

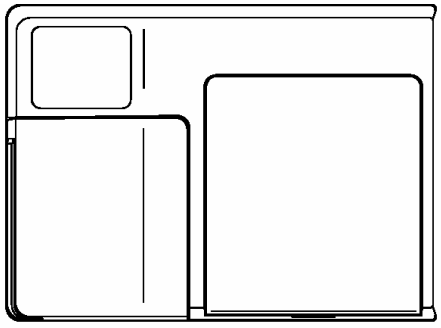
Paper supplied by A&D:	Length 34 mm AX-PP158-34-S (Approx. 800 pcs x 5 rolls) Length 40 mm AX-PP158-40-S (Approx. 700 pcs x 5 rolls) Length 46 mm AX-PP158-46-S (Approx. 600 pcs x 5 rolls)
Recommended thermal paper:	LD4131 manufactured by LINTEC Corporation
Label width:	58 mm
Label Length:	28 to 62 mm (Standard settings: 34, 40, and 46 mm)
Backing paper:	Width 60 mm, white
Maximum take-up diameter:	80 mm
Inside diameter of the core:	25.4 mm
Take-up direction:	Inside

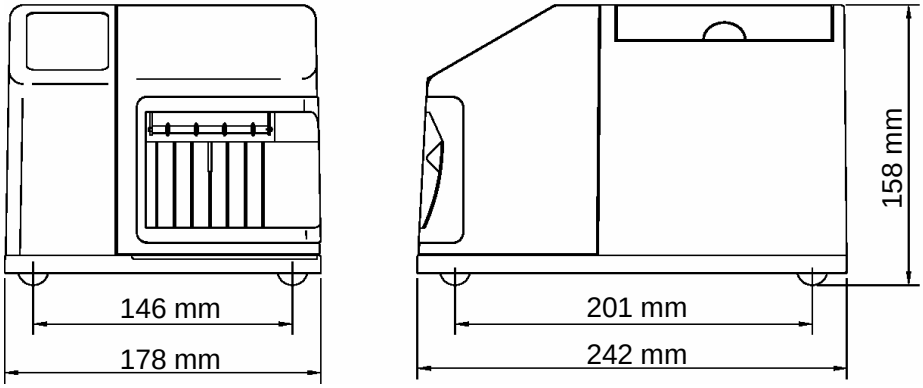


6-5. Contents of Pack

1. Printer	1
2. AC adapter	1
3. Power cord	1
4. Instruction MANUAL	1

6-6. Dimensional Drawing





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