Printer VZ-330

Operating Manual

Precautions in the Printer

- DO NOT insert any foreign objects such as a piece of metal or any liquid in the internal parts or slot of the printer.
  Doing so may cause fire or electric shock.
- DO NOT put the printer into water in a place where it could get wet.
  Doing so may cause fire, a failure or other accidents.
- DO NOT put the printer into fine particles in a place where it could get fine particles.
  Doing so may cause accidents.

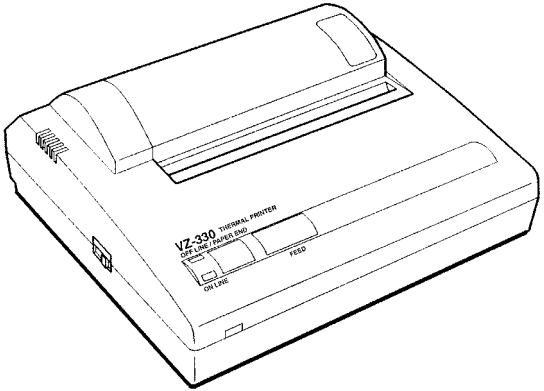
Contents

1. Printer and Accessories 4
2. Part Names 5
3. Operation Panel 6
4. Connecting AC Adapter 7
5. Loading the Paper 8
6. Connecting the Printer 9
7. DIP SW Settings 10
8. Test Print 13
9. Handling the Battery Pack 14
10. Maintenance 16
11. Trouble shooting 18
12. Specifications 20

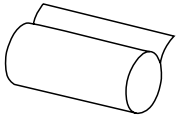
1. Printer and Accessories

Once you have opened the carton, make sure it contains the printer and all accessories.

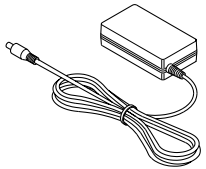
1. Printer



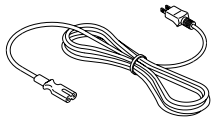
2. Accessories



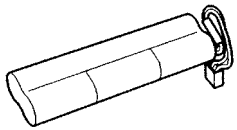
Thermal paper



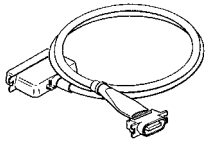
AC adapter



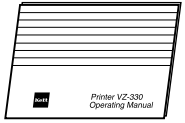
AC cable



Battery pack
(The battery pack is set in the printer)



Printer cable



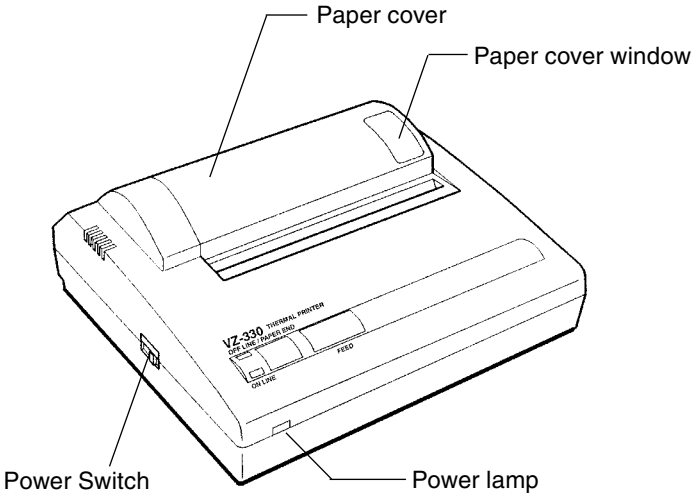
Manual

Function setting guide

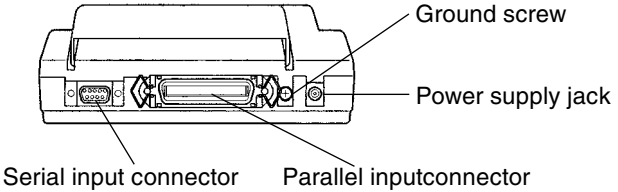
∗ The shape of the printer cable in different according to the measuring instrument used.

2. Part Names

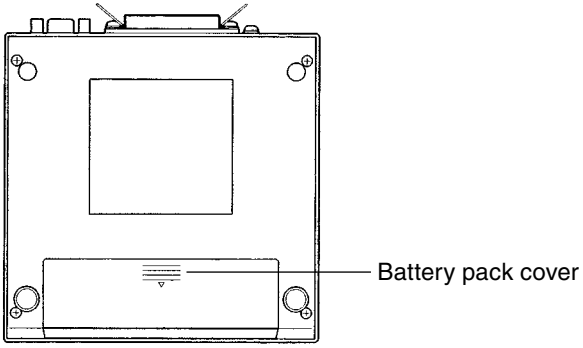
1. Front



2. Back

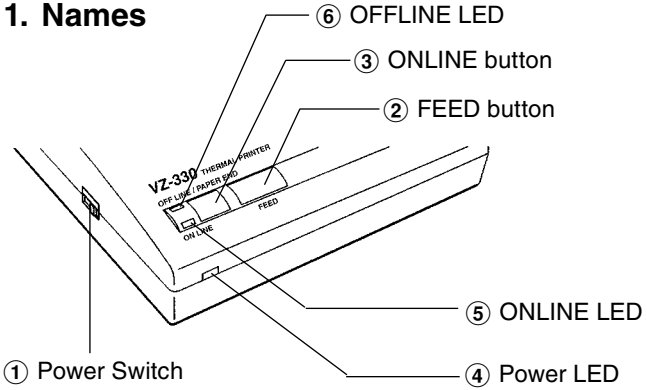


3. Bottom



3. Operation Panel

1. Names



2. Operation Panel

① Power Switch
Slide the power switch to turn the power on (ONLINE) or off.

② FEED button
Feeds thermal paper when pressed in OFFLINE mode.

③ ONLINE button
Press to toggle between OFFLINE and ONLINE.

④ Power LED
Indicates the power is on. Blinks once every second to indicate the battery is being charged. Blinks once every 1/2 second to indicate the battery is low.

⑤ ONLINE LED
Indicates the printer is ONLINE. Blinks to indicate there is data in the buffer memory when the printer is OFFLINE.

⑥ OFFLINE LED
Indicates the printer is OFFLINE. If the paper is not set or has run out, the LED flashes. When an error occurs, both the ONLINE and off-line LEDS light.

＊ <ONLINE>
Set the printer ONLINE to print by receiving the data.

＊ <OFFLINE>
Set the printer OFFLINE to feed paper with the FEED button or to stop printing. (Print data and commands cannot be input in OFFLINE mode.)

＊ Be sure the thermal head is in the home position (at the far left) before turning off the power switch. If left away from the home position for a long period, the print quality might deteriorate.

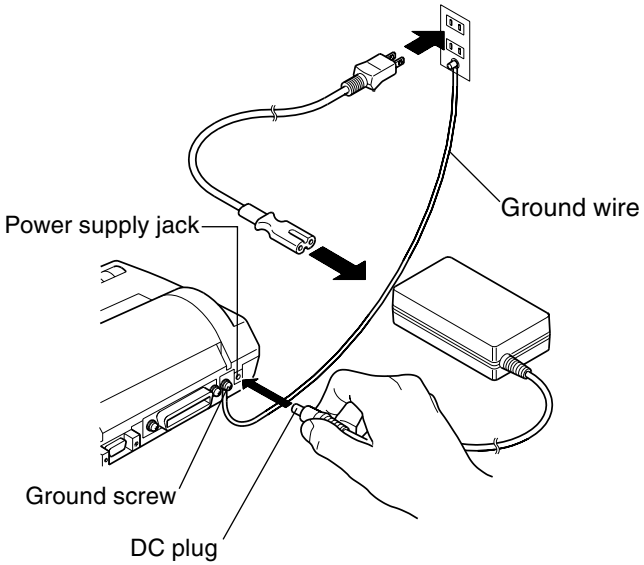
4. Connecting AC Adapter

① Turn off the power.

② Plug the DC plug on the AC adapter into the power supply jack on the printer.

③ Plug the AC adapter into an outlet.

④ Turn on the power.



＊ Always use an specified adapter.

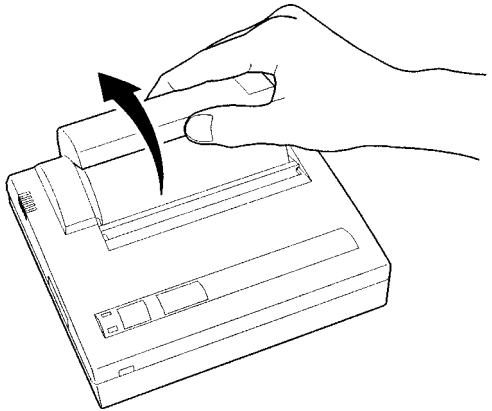
＊ Connect the ground terminal to ground screw with ground wire.

＊ DO NOT touch the pins of the DC plug.

＊ To remove the AC adapter, turn off the power switch first, then unplug the AC adapter and the DC plug.

5. Loading the Paper

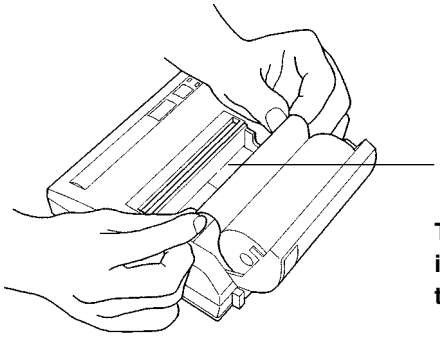
① Lightly push up on the front of the paper cover with your thumb and rotate it toward the back of the printer.



② Turn on the power.

③ Cut the tip of the thermal paper straight across. New Paper can be inserted as is. (See figure on right)

④ Push the tip of the thermal paper into the inlet at the bottom of the paper holder, until the auto-loader catches it and feeds about 10cm of it through the paper cutter.



The printing surface is the outside of the thermal paper roll.

⑤ Keep pressing the FEED button until the thermal paper feeds straight and smoothly.

⑥ Close the paper cover and push down on it to lock it into place.

- **Load the paper in an area protected from direct sunlight.**
- **When the thermal paper is set correctly, the OFFLINE LED stops blinking and stays on to indicate the printer is still in OFFLINE mode.**
- **When the paper is about to run out, red lines appear on both sides of the paper.**

6. Connecting the Printer

① Turn off the printer and measuring instrument.

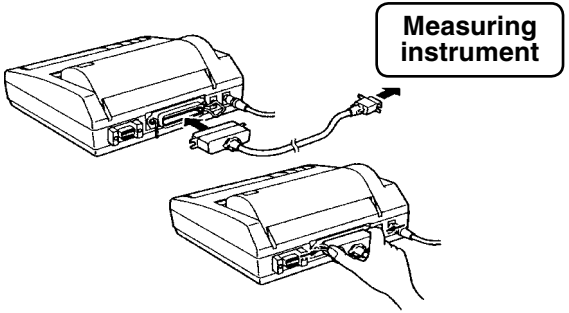
② Connect the printer to the measuring instrument with an printer cable.

<Parallel> Secure with veil lock.
<Serial> Secure with screws.

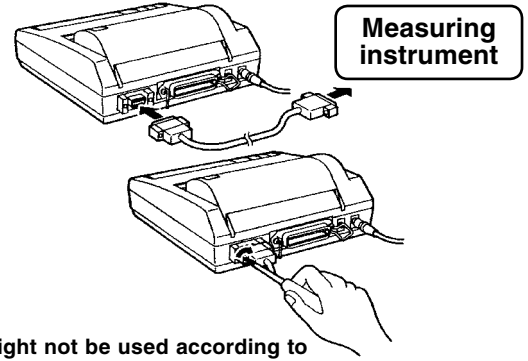
③ Set the software DIP switches (DIP SW) to match the input method. (See P10 [DIP SW Settings])

④ Turn on the printer and the measuring instrument.
The connection in completed it printed data is sent from the measuring instrument, and it is printed correctly.

<Parallel>



<Serial>



*** The driver wight not be used according to the connector shape of the printer cable.**

7. DIP SW Settings

The startup settings and input method can be set by the software DIP switches (DIP SW).

* **It is necessary to change the setting with the measuring instrument used. Please see attached paper "VZ-330 function setting guide" in detail.**
* **The setting cannot be discontinued until ending it the setting is started on the way. Please never turn off power while setting it.**
* **[ ] in dicates factory default setting.**

1. DIP SW1

Switch No.	Function	ON	OFF
1	Input Method	Parallel	Serial
2	Printing speed	High	Low
3	Auto loading	ON	OFF
4	CR function	Carriage return and line feed	Carriage return
5	DIP SW Setting Command	Enable	Disable
6 to 8	Print density	See the table below	

Switch No.	Print Density (%)							
	72	79	86	93	100	107	114	121
6	ON	ON	ON	ON	OFF	OFF	OFF	OFF
7	ON	ON	OFF	OFF	ON	ON	OFF	OFF
8	ON	OFF	ON	OFF	ON	OFF	ON	OFF

* **DO NOT set switches 5 to 8 a setting other than that shown in the table.**

2. DIP SW2

Switch No.	Function	ON	OFF
1	Print mode	No.rmal printing (40 columns)	Condensed printing (80 columns)
2	User-defined characters back-up	ON	OFF
3	Chatacter type	Ordinary characters	Special characters
4	Zero font	0	ϕ
5 to 8	International character set	See the table below	

Character set	Switch No.			
	5	6	7	8
Japanese	ON	ON	ON	ON
American	ON	ON	ON	OFF
German	ON	ON	OFF	ON
English	ON	ON	OFF	OFF
French	ON	OFF	ON	ON
Spanish 1	ON	OFF	ON	OFF
Italian	ON	OFF	OFF	ON
Swedish	ON	OFF	OFF	OFF
Danish 1	OFF	ON	ON	ON
Danish 2	OFF	ON	ON	OFF
Norwegian	OFF	ON	OFF	ON
Spanish 2	OFF	ON	OFF	OFF
Latin American	OFF	OFF	ON	ON

3. DIP SW3

Switch No.	Function	ON	OFF
1	Data bit length	Eight bits	Seven bits
2	Parity permission	Without	With
3	Parity condition	Odd	Even
4	Flow control	H/W BUSY	XON/XOFF
5 to 8	Baud rate	See the table below	

Baud rate	Switch No.			
	5	6	7	8
75	ON	ON	ON	ON
110	ON	ON	ON	OFF
150	ON	ON	OFF	ON
300	ON	ON	OFF	OFF
600	ON	OFF	ON	ON
1200	ON	OFF	ON	OFF
2400	ON	OFF	OFF	ON
4800	ON	OFF	OFF	OFF
9600	OFF	ON	ON	ON
19200	OFF	ON	ON	OFF
75	OFF	ON	OFF	ON
75	OFF	ON	OFF	OFF
75	OFF	OFF	ON	ON
75	OFF	OFF	ON	OFF
75	OFF	OFF	OFF	ON
75	OFF	OFF	OFF	OFF

8. Test Print

In a test print, characters 20H to FEH are printed in condensed, ordinary and double-width modes according to the international, special character and zero font settings of the software DIP switches. This is followed by a small checkered pattern and solid black pattern printed dot by dot, after which the current settings are printed.

1. Procedure

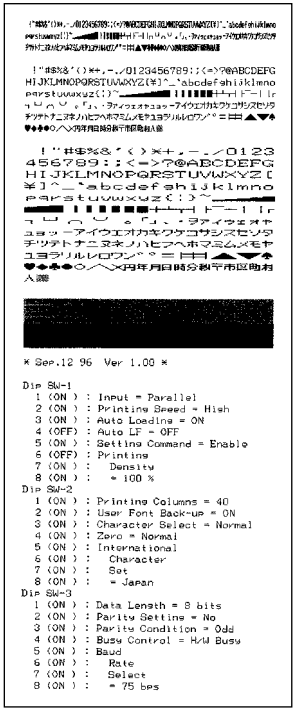
① Turn off the power.

② Make sure the thermal paper is inserted correctly.

③ Turn on the power while pressing the FEED button to start the self-test.

④ Release the FEED button as soon as the self-test starts.

2. Print Sample



* Sep.12 96 Ver 1.00 *

Dip SW-1
  1 (ON) : Input = Parallel
  2 (ON) : Printing Speed = High
  3 (ON) : Auto Loading = ON
  4 (OFF) : Auto LF = OFF
  5 (ON) : Setting Command = Enable
  6 (OFF) : Printing
  7 (ON) :   Density
  8 (ON) :   = 100 %
Dip SW-2
  1 (ON) : Printing Columns = 40
  2 (ON) : User Font Back-up = ON
  3 (ON) : Character Select = Normal
  4 (ON) : Zero = Normal
  5 (ON) : International
  6 (ON) :   Character
  7 (ON) :   Set
  8 (ON) :   = Japan
Dip SW-3
  1 (ON) : Data Length = 8 bits
  2 (ON) : Parity Setting = No
  3 (ON) : Parity Condition = Odd
  4 (ON) : Busy Control = H/W Busy
  5 (ON) : Baud
  6 (ON) :   Rate
  7 (ON) :   Select
  8 (ON) :   = 75 bps

∗ The printer stops automatically after the test print. DO NOT turn off the power to the printer while it is printing.

9. Handling the Battery Pack

Even if AC adapter is not used, this printer can be used by the battery pack.

* **The battery pack has already been installed as for this printer at purchase. Please charge it before use, because it is not charged enough.**
* **The battery discharges when it is not used for a long time, therefore, immediately recharge the battery after long periods of storage.**
* **Always use an specified battery pack.**
* **A fully charged battery pack can print about 3000 lines.**

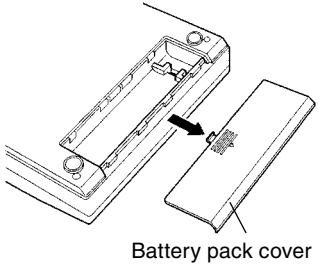


Figure 1

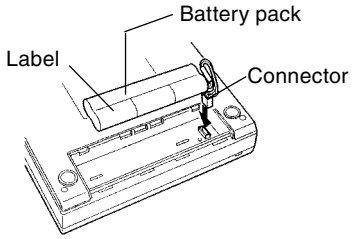


Figure 2

1. Inserting the Battery Pack

① Turn the printer over and open the battery cover as shown in Figure 1.

② Connect the battery pack as shown in Figure 2, turn it so the label is visible, insert it into the printer, and close the battery cover. Close the battery cover.

2. Removing the Battery Pack

① Turn the printer over and open the battery cover as shown in Figure 3.

② Pull out the battery pack, grab the connector with your thumb and index finger, and remove it by pulling up on it. Close the battery cover.

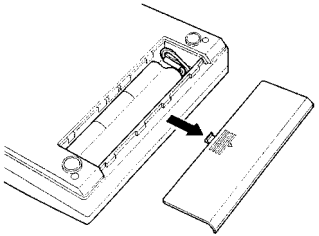


Figure 3

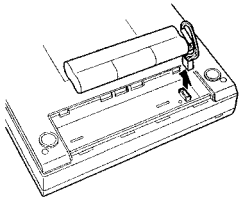


Figure 4

3. Charging the Battery

① Turn the power OFF.

② Connect the AC adapter to the printer. The POWER LED will blink once every second indicating the battery is charging. It takes about 10 hours to fully charge the battery. When the battery is fully charged, the power LED stops blinking and goes off.

③ Disconnect the AC adapter.

* **Always charge the battery in a location that is from 5 to 40℃ otherwise it may lead to a degradation of the battery.**
* **It takes about 15 hours to charge the battery with the power ON. Battery charging is temporarily disrupted while the printer is printing and resumed automatically when printing is completed.**

4. When the Battery Gets Low During Printing

When the power LED starts blinking about once every 0.5 seconds and the printer goes OFFLINE, connect the AC adapter. The ONLINE LED will blink if there is data left in the memory buffer. In order to print the remaining data, connect the AC adapter as quickly as possible and push the ONLINE button.

5. When Using the Rechargeable Battery

Turn off the power switch after use.

6. When Using the AC Adapter

If you are not using the printer, turn off power switch, and unplug the AC adapter.

10. Maintenance

Both the ONLINE and OFFLINE lamps light and data input and paper feed are disabled when one of the following four errors occurs.

1. Errors

Situation	Considered cause, solution method
• The head does not return to the home position even when the power is turned on. • The head does not return to the home position at interval home return.	Are there any dust such as a piece of paper in the printer head? Turn off the power switch. Remove any foreign objects.
• The case that online lamp and offline lamp remain turning on.	Is the temperature of use extremely low or high? Use the printer at 0 to 40 ℃ (32 to 104 ℉). Is the battery consumed? Please charge it, connecting to AC adopter.
• The offline lamp is blinking and it can't be online.	Is the paper set into the printer? Furthermore, is the paper running short during printing? If you put the paper into the printer, offline lamp changes from blinking to turning on light. Please push online switch and print.

＊ Interval Home Return
To protect the printer, the head returns to the home position (the leftmost position) automatically when;

① data is not sent from the measuring instrument.

② the ONLINE button is pressed to set the printer OFFLINE.

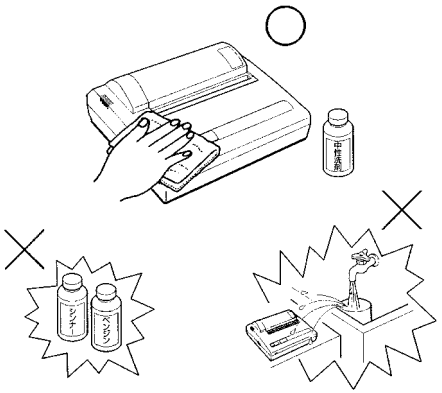
③ the printer runs out of thermalpaper.

2. Caring For The VZ-330 Printer

If the outside of your printer gets dirty, wipe it with a soft, dry cloth. If it gets very dirty, wet a soft cloth with mild detergent diluted with water, squeeze it well, and clean the printer.

＊ DO NOT use thinner, benzine, or other volatile chemicals.

＊ DO NOT allow water to get inside the printer.



11. Trouble shooting

Symptoms	Check Point	Action
① The power does not turn on. (The power LED is off.)	Is the power switch on?	Turn on power switch.
	Is the AC adapter connected correctly? Is power being supplied from the outlet?	See Section 4. Plug other electrical appliances into the outlet to check that it is working.
	Is the battery recharged? (When using a battery)	See Section 9, charge the battery pack.
② Smoke Smells Over heat Strange noise	The inside of the printer is abnormal.	Please pull out the AC plug from the outlet, and remove the battery pack at once. Please contact your vender to repair the product.
③ The thermal paper does not feed.	Is the thermal paper loaded correctly?	See Section 5.
	Is there foreign matter in the paper inlet?	Remove any foreign objects.
	Are the ONLINE and OFFLINE LEDs on?	An error has occurred. See Section ⑥.
	Is the ONLINE LED off?	Set the printer OFFLINE.
④ The printer does not print or stops during printing.	Is the OFFLINE LED flashing?	The thermal paper has run out. Load more paper.
	Are the ONLINE and OFFLINE LEDs on?	An error has occurred. See Section ⑥.
	Is the OFFLINE LED on?	Set printer ONLINE.
	Is the OFFLINE LED ON and the Power LED blinking?	If you cannot set it ONLINE, the battery has discharged. Connect the AC adapter.
	Is the ONLINE LED flashing?	Connect the AC adapter and set the printer ONLINE.

Symptoms	Check Point	Action
④ The printer does not print or stops during printing.	Are the SWDIP switches set correctly?	Set them according to the “Function setting guide”.
	Is the printer cable connected correctly?	Please confirm whether for the cable to left out or to be connected correctly.
	Is the print setting of the measuring instrument correct? (Only the measuring instrument with the print setting)	Please confirm whether to be set correctly referring to the operating manual of the measuring instrument. Please set it correctly when it is not correct.
	Are you using back of paper?	The outside is the front. See Section 5.
⑤ The printing is light or dark.	Is the temperature very high or low?	Use the printer at 0 to 40℃ .
	Are the SWDIP switches set correctly?	Please confirm whether the setting is suitable for the measuring instrument referring to attached paper "Function setting guide". Please set it correctly when not suitable. Please set it referring to Section 7 when you want to change the density arbitrarily.
⑥ Both the ONLINE and OFFLINE LEDs on, and the buttons cannot be operated.	Do the head return to the home position even when the power is turned on? Do the head return to the home position at interval home return?	Turn off the Power Switch. And remove the foreign material.
	Is printing attempted at extremely low or high ambient temperatures?	Use the printer at 0 to 40 ℃ .
	Do the battery runs out?	See Section 9, charge the battery pack.

11. Specifications

- Printing method : Thermal serial dot
- Character mode
  - Total number of dots : 9 × 320 dots / line
  - Character matrix : 9 dot high × 7 dot wide
  - Space between characters : 1dot
  - Columns : 40 column (normal), 80 column (condensed)
  - Printing direction : Unidirectional or bidirectional logical seek
- Bit-image graphics mode
  - Total number of dots : 8 × 320 dots / line
  - Printing direction : Unidirectional logical seek
- Printing width : 89.6mm
- Printing speed : Max. 52.5cps (normal),
  : Max. 80cps (condensed)
- External dimensions : 160mm×170mm ×66.5mm
- Mainframe weight : Approx. 580g (excluding battery)
- Life : Approx. 500, 000 lines
  (continuous printing of 40 columns of “8”)
  (when print density is 100%)
- Temperature : 0 to 40℃
- Humidity : 33 to 80% RH (non-condensing)

- Thermal paper specifications
  - Width : 112mm
  - Outer diameter : 48mm
  - Roll length : Approx. 28m

- AC adapter specifications
  - Input : AC100V~240V, 50/60Hz
  - Output : DC7.0V, 2.5A
  - External dimensions : 77.5×51.8×39.2mm
  - Cable length : 1.5m
  - weight : Approx. 165g

- Battery pack specifications
  - Cell type : Ni-MH
  - Rated Voltage : 4.8V
  - weight : Approx. 120g

MEMO

KETT ELECTRIC LABORATORY
1-8-1 Minami-Magome Ota-Ku,Tokyo 143-8507 Japan
Tel.+81-3-3776-1121 Fax.+81-3-3772-3001
URL http://www.kett.co.jp/ E-mail overseas@kett.co.jp

1309·PA·0101·050