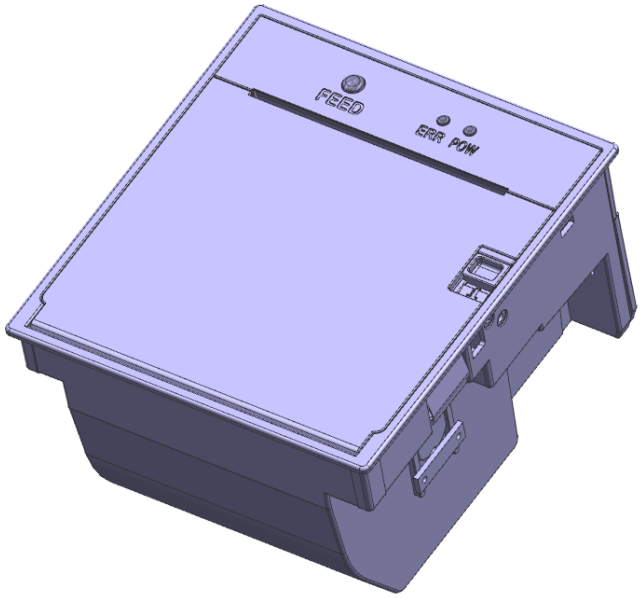
HP-380

User's Manual



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● Revision history

Version	Rev. date	Rev. page	Contents
Ver. 1.00	2021.05.03		New issue

● PRODUCT MANUAL

This manual provides basic information and instructions for using HP-380 series.

Follow the manual to install and use the printer device. Failure to do so may result in a problem with the device.

The user is responsible for the loss caused by improper handling and operation.

This document is subject to change without prior notice. If you do not find any suspicious information, or have any questions about this manual, please contact the place where you purchased the product.

● Warning and Caution for Safety

In order to use the product properly and prevent safety accidents, please keep the following information.

Please follow the direction in using the product as it may become the reason of malfunction, serious injury, or even death..

Warning

- Do not disassemble or modify the product.
- Do not remove jammed paper while power is turned on.
- Do not go over the specified voltage.
- Do not wash the product.
- Do not hit or cause an impact to the product.
- Do not store the product in the wet / humid place.

Please follow the direction in using the product as it may become the reason of malfunction, serious injury, or even death.

Caution

- Please contact us to take an action when product fails.
- Please power off during the removal of any matter.
- Please ventilate the air circulation in closed area.
- Please install the product away from the near interferences.
- Please install the wiring in a safe place.
- Please follow the directed terms of compliance in using the electrical product.

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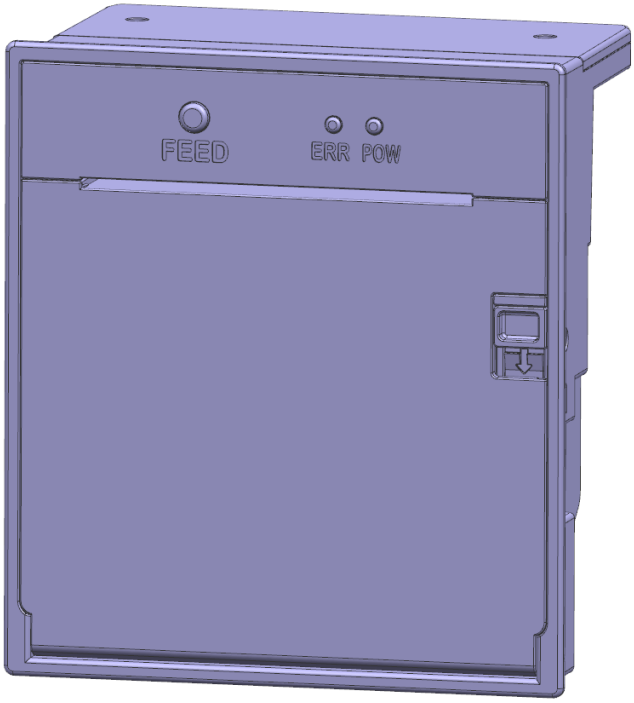
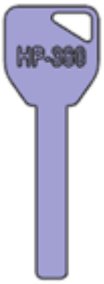
Ⅰ. Introduction

HP-380 series printers are designed to be installed or connected to a kiosk system.

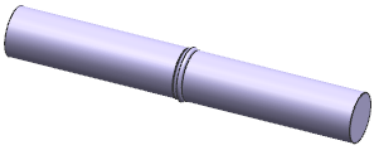
1. Product Composition



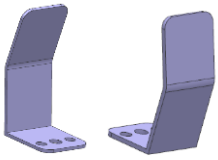
HP-380



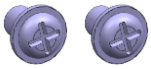
Cover open key



Paper shift

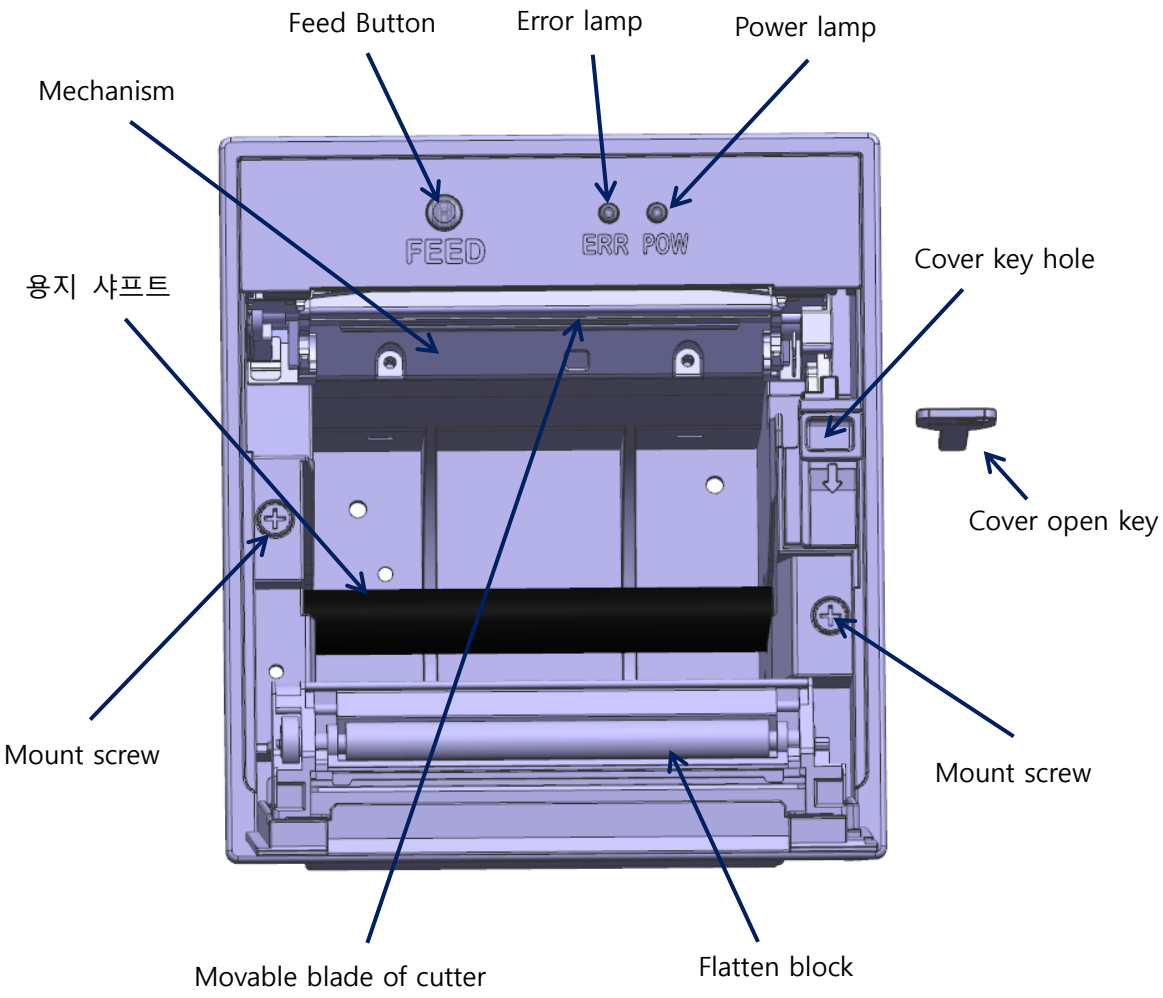


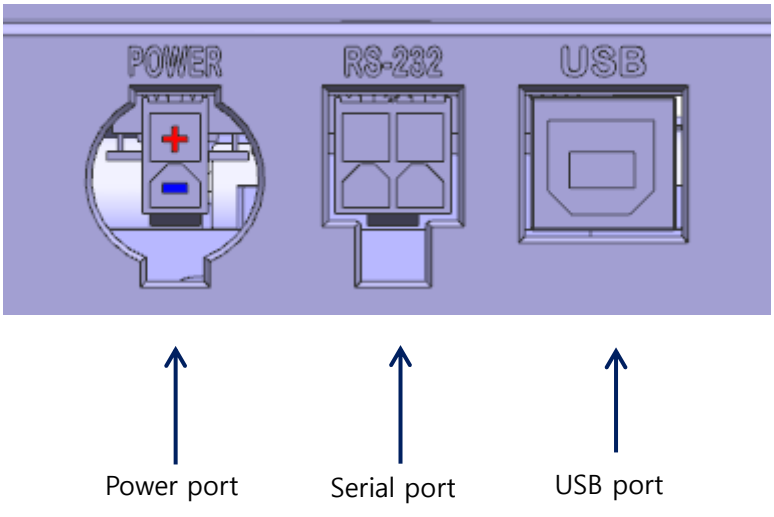
Mount bracket



Screw (M3x3.5)

2. Printer Main Part Name

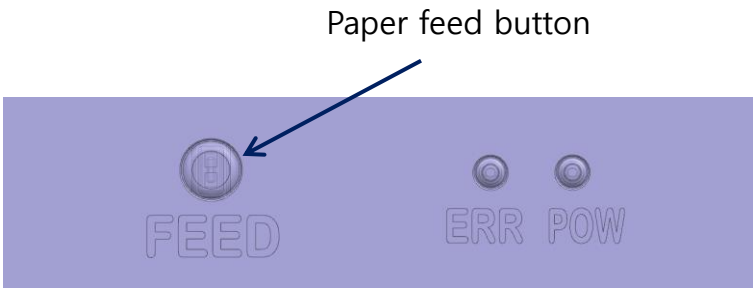




Ⅱ. Main Functions

1. Paper feed button and status notification lamp

1) Paper feed button



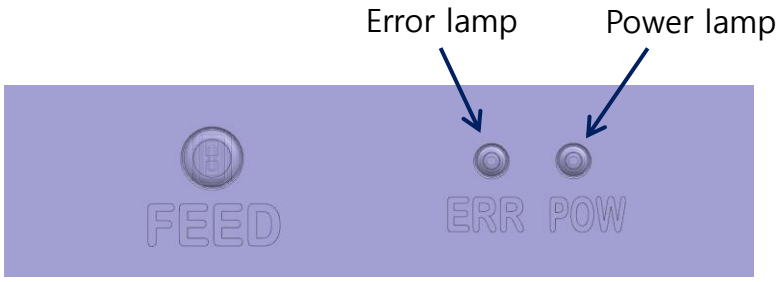
The FEED button can perform the following functions.

① Paper transfer : Pressing the transfer button with the paper inserted transfers the paper while it is being pressed.

② Self-test : The self-test result will be printed when the FEED button is pressed and the ERROR notification lamp is illuminated once and then released

③ Checking and changing printer status : The ERROR notification lamp flashes continuously when the transfer button is pressed and the power is turned on and pressed continuously, when the button is released, the printer status menu is printed.

2) Status notification lamp



① Power lamp : When the power is on, the power (POW) notification indicator (green lamp) will illuminate.

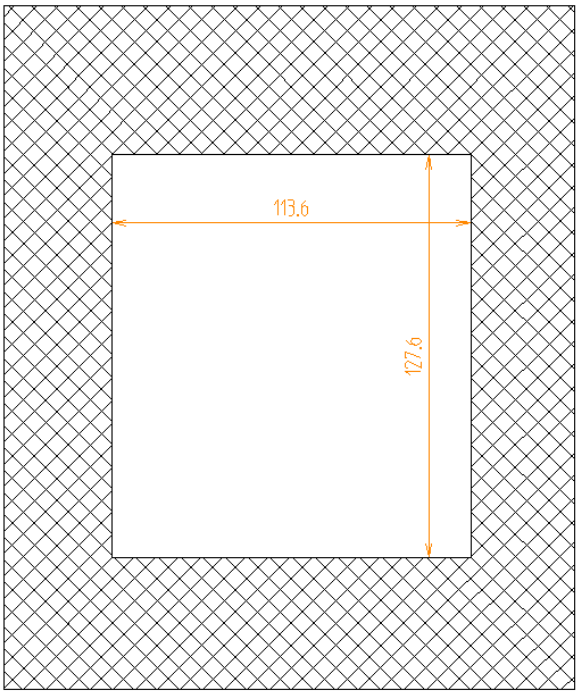
② Error notification lamp : Depending on the status of the printer, the flashing speed of the notification lamp tells you the status of the printer as below.

Notification lamp status	Alarm sound	Status of printer
Flashing briefly	Beep(briefly)	No paper
Flashing for a long time	Beep(Long term)	Cover open, cutter jammed, paper jammed, etc

Ⅲ. Installation Method

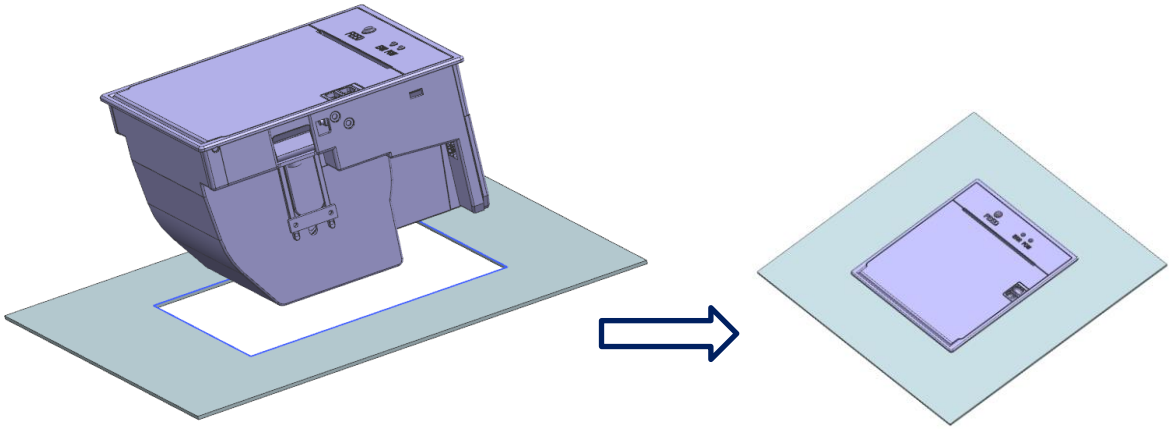
1. Recommended size for panel installation

- Width : 113.6mm, - Length : 127.6mm, - Panel thickness : T1.0 or T1.6

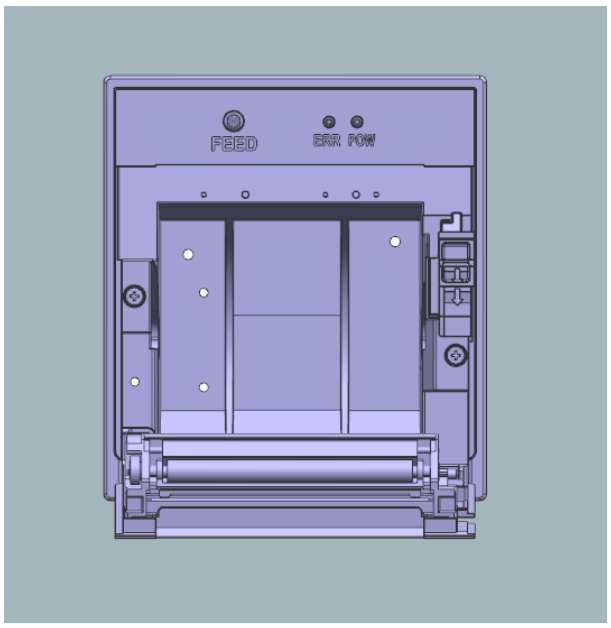


2. How to Install the Panel Printer Ⅰ

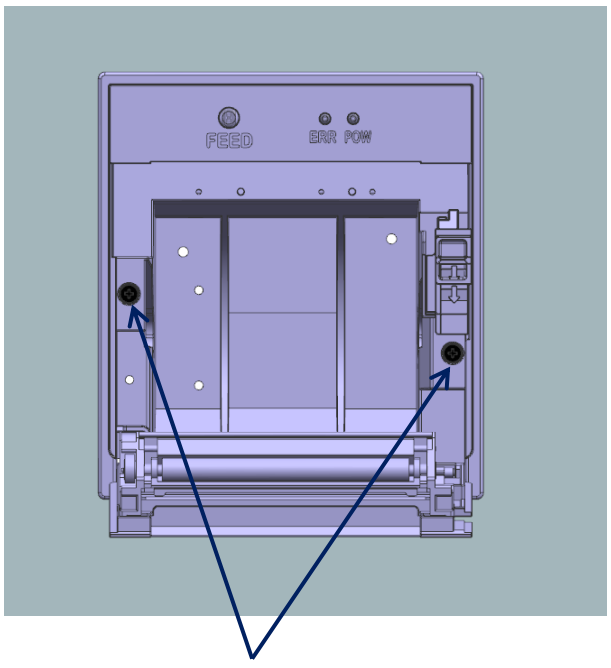
1) Put the product in the square hole of the panel..



2) Open the printer cover.



3) Tighten the two mounting screws for fixing the panel..

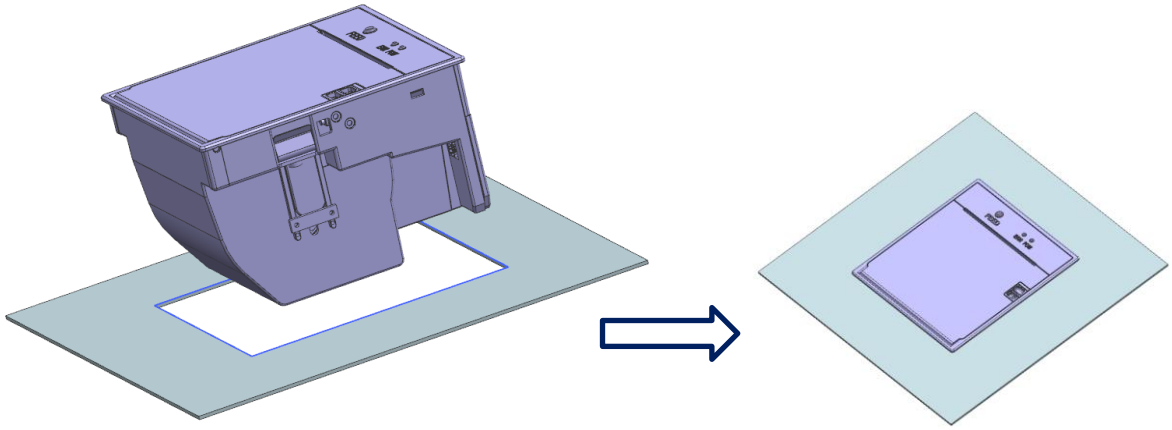


Mounting screws

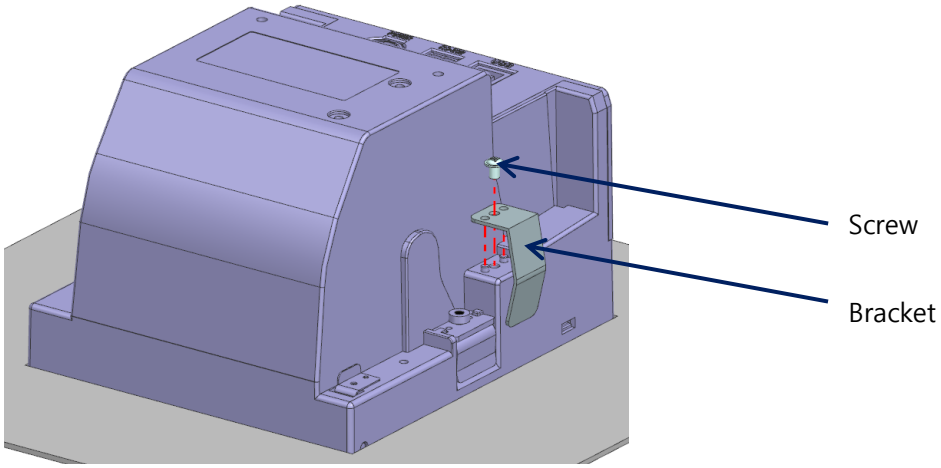
CAUTION When fixing the mounting screw, be careful to fix it as excessive force may cause deformation of the product.

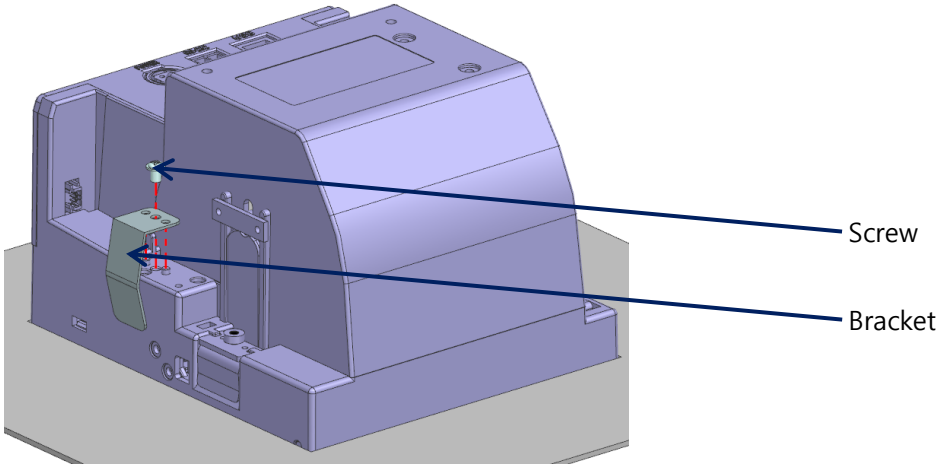
3. How to Install the Panel Printer Ⅱ

1) Put the product in the square hole of the panel.



2) Fix up the fixing brackets on both sides using screws. (Fixing brackets, screws supplied separately)

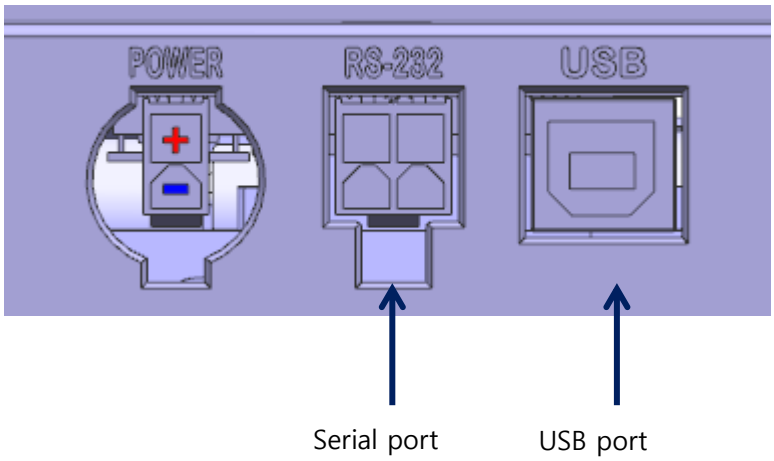




Ⅳ. How to use a printer

1. Interface connection

Use the interface cable that connects to the host that meets the specifications

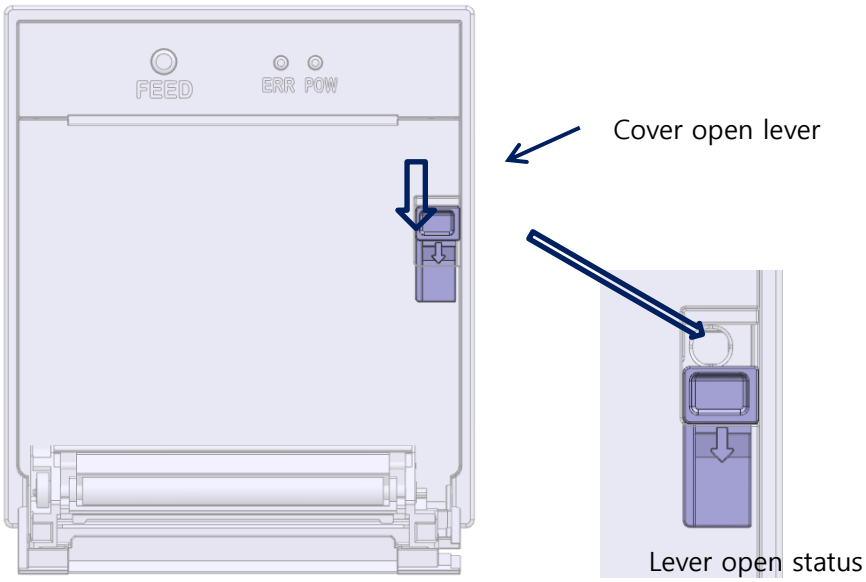


Make sure to turn off the power switch when connecting the communication cable.

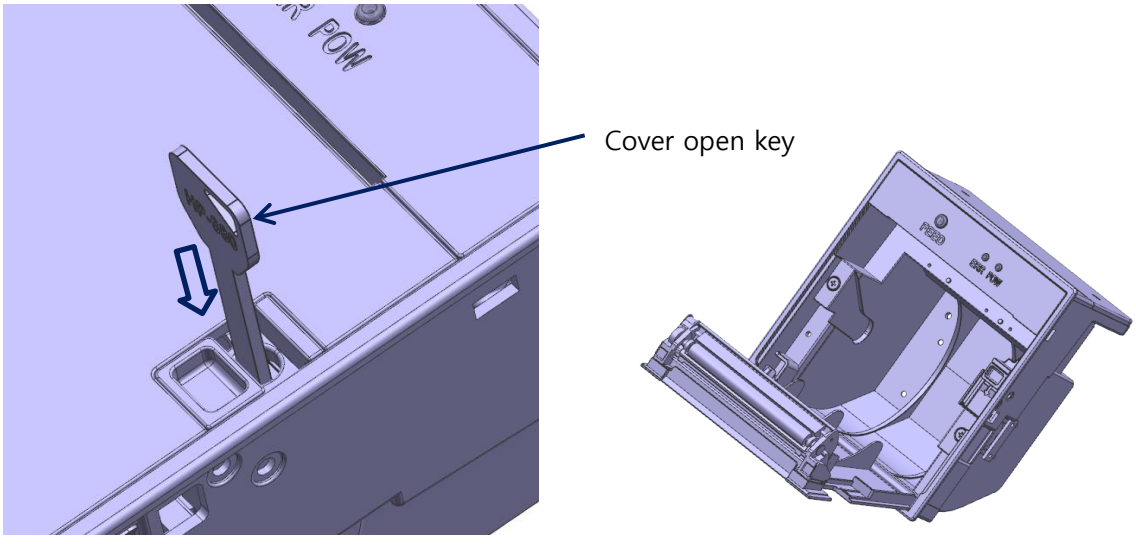
2. Paper Change

1) How to open the cover

① Move the cover open lever in the direction of the arrow until it is caught.

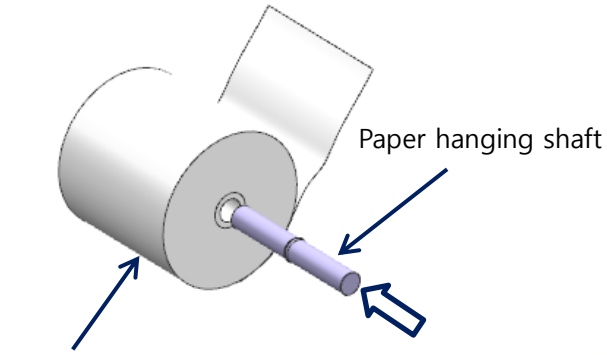


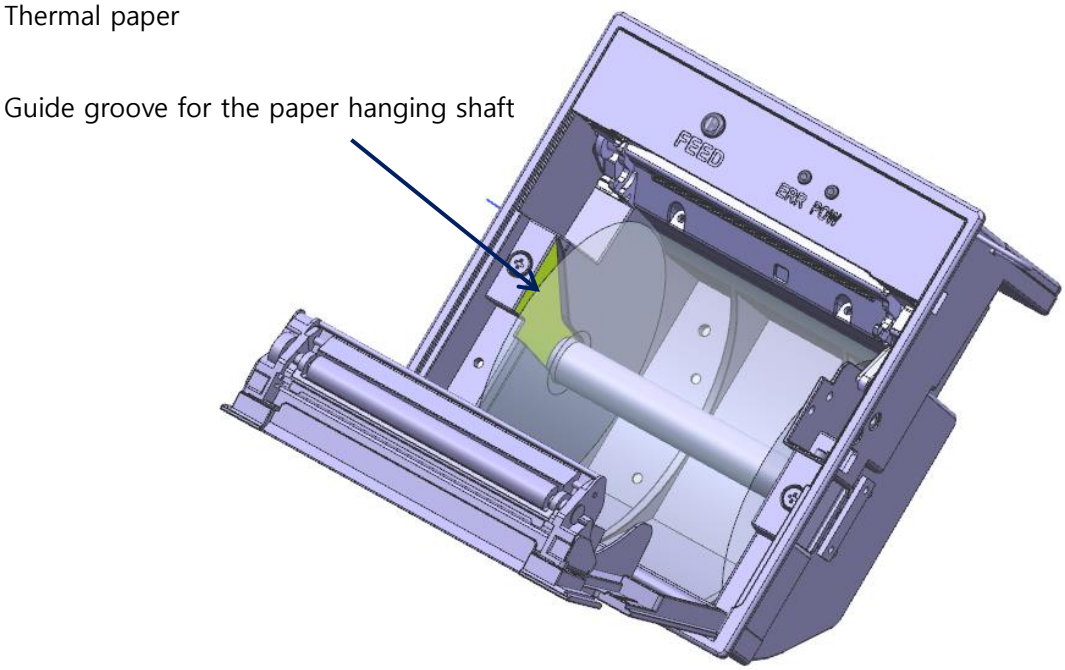
③ Insert the cover open key in the hole and press it in the direction of the arrow until the cover is opened.



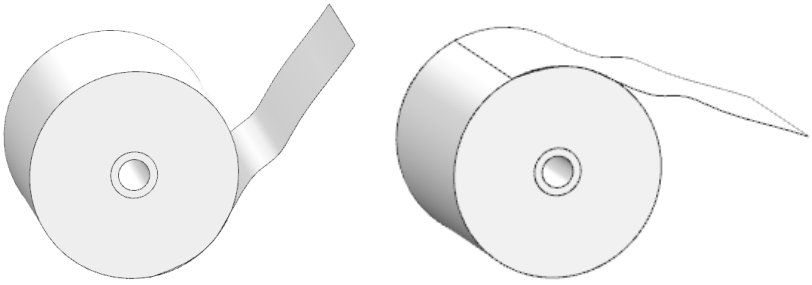
2) How to fix the paper

① Insert the paper shaft into the paper pipe and fit it into the product guide groove.



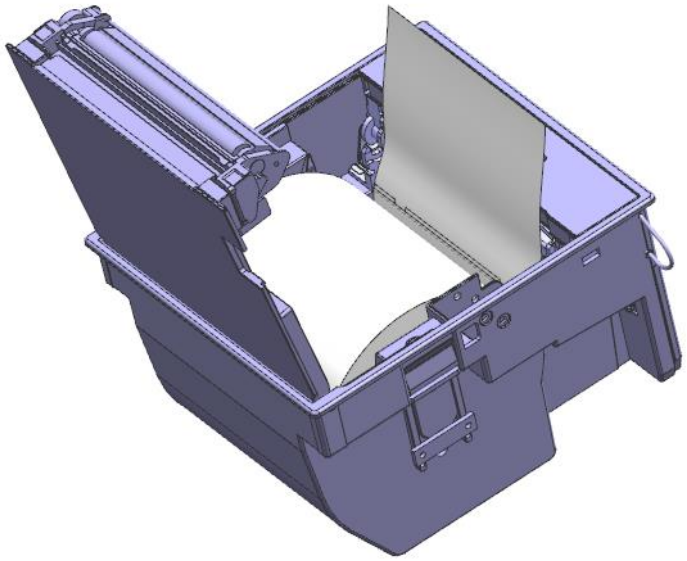


Be careful not to change the printing side of the paper.

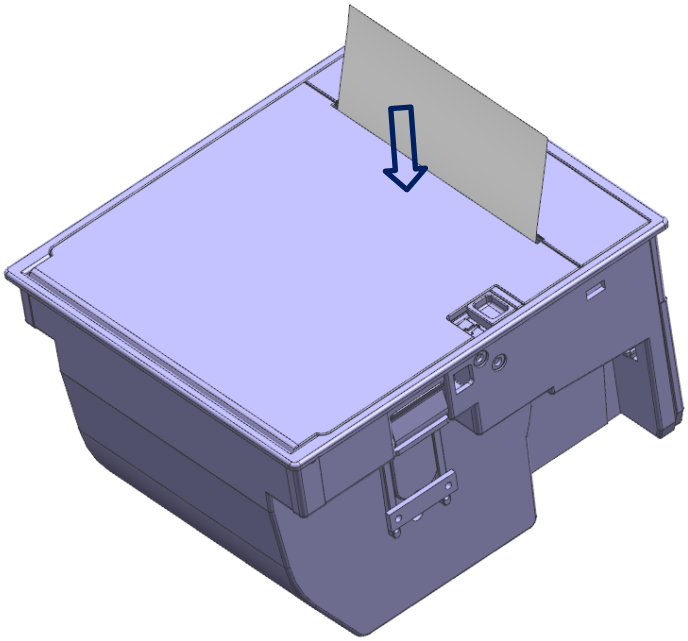


OK NG

② Make sure the end of the paper is out of the printer and close the cover.



Press the center of the cover in the direction of the arrow to close it.



CAUTION When closing the cover, press firmly on the middle part of the cover (near the arrow) to close it. Failure to do so may result in blurred printing.

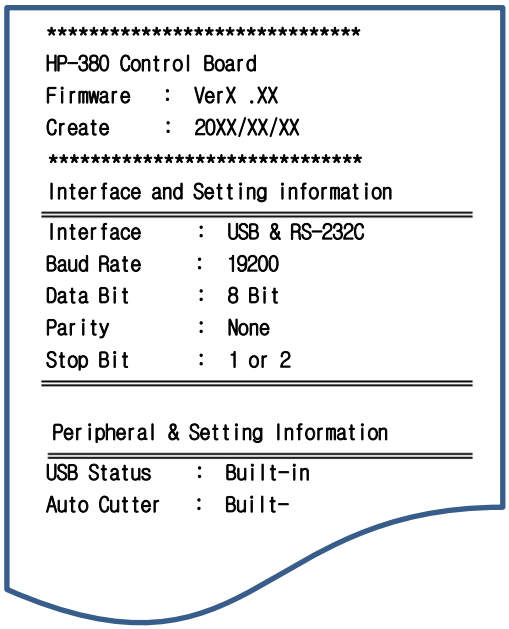
3. Self-test print

Self-testing allows you to see the current settings on your printer.

① With the power off, press the feed button and power it on.

② Power on and hold the feed button (approximately 1 second) until the red notification light flashes, and when the feed button is released, printing starts.

④ The following contents will be printed.



- Model Name
- Firmware Version and Created Date
- Interface Configuration
- Sample Print

4. HEX DUMP PRINT

Turn on the power after placing the Dip SW1 number 8 to ON position. After printing as [HEX DUMP MODE], it will print all receiving datas to 16 hexadecimal data for all receiving datas. This would be useful when developing an application because this notifies the transmission status.

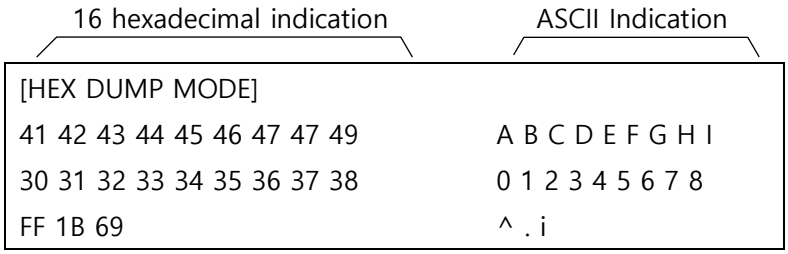
Prints if 12 digits is received.

Data under 12 digits will be printed when you press the feed button.

Control code (below $1F_{16}$) will be printed as ".".

Prints as "^" when 80_{16} or above.

[Print Sample]



Ⅴ. Printer Function Setting

There are two ways to set the printer's functions such as serial communication conditions, Ethernet, black mark, etc., which are: a manual setting method in which the printer itself is changed, and a method using tools such as a memory switch program that connects to a PC. For the direct communication method through the Window Driver, refer to the separate manual attached with the setting program on our website.

1. Setting Manually

1) If the power is turned on while holding the FEED button for more than 2 seconds, the ERROR light turns off and then on and off repeatedly, and the items for which settings can be adjusted are printed as follows.

```
[Menu]
     1.Baud rate
     2.Parity
     3.Flow control
     4.Hex Dump Mode
     5.Print Density
     6.Auto Melody
     7.Cut Mode
     8.Auto Buzzer
     9.Print Speed
Select and then Enter...

Enter : Press the feed button once for
             more than 1second.
Select: Press the feed button many times
             less than 1second as menu number.
Exit  : Turn power off then on.
```

2) Item change and specification are determined by the length of time that the FEED button is pressed. Pressing the FEED button for less than 1 second will change to the next item. For example, if you want to adjust the print density, press the FEED button 5 times shortly to change the item to “5. Print Density”.

After that, if you press and hold the FEED button for more than 1 second, the item is specified

and the current setting value is output.

```
[Print Density]
-> 1. Normal
   2. Medium
   3. Dark
   4. Most Dark

-> : Indicate current set status
Select and then Enter...
```

"->" indicates the currently set value.

3) In the same way, press for less than 1 second to toggle to the item you want to change and then set the item.

For example, if you want to change the current setting value from "1. Normal" to "4. Most Dark", simply press the FEED button 4 times and then press and hold 1 time..

- It was changed successfully!

This indicates that the change was successful.

- The value is invalid, try again!

This is displayed when the selected item is invalid or when you move to another menu without changing the item.

4) If the change is made successfully, the changeable items printed first are displayed.

If you need to make further adjustments, you can proceed in the same way.

Turn the power off and on after making all the changes.

2. Firmware Update

With the adoption of flash memory, you can easily update the printer program from a PC.

When updating, be sure to read the steps below.

1) Turn the power off and then back on.

2) Make sure that the communication cable is connected with the printer.
(You can shorten the update time by using a USB cable.)

3) Run the provided update program, set the model name and communication port, and perform the update.
The ERROR LIGHT turns off, and after a few seconds, it flashes rapidly and the update starts.
Never turn off the printer power before the update is completed.

4) When the update complete mark appears, the update is completed.
※ If there is an update error during update, the ERROR LIGHT blinks slowly. After closing the update program, check the model and communication cable for abnormalities. After checking that the values are correct, run the update program again and repeat step 1).

5) After the update is completed, it is automatically reset and becomes available to use.

※ For more information on updating firmware, please check our website or contact the person in charge.

VI. Product Specifications

1. Specification

Item		Specification
Printing method		Thermal dot line printing
Resolution (dot size)		203DPI
Dots per line		576 dots
Paper feed width (1 step)		0.125mm
Paper thickness		50㎛ ~ 80㎛
Paper width		80mm
Paper outer diameter size		Φ80
Printing width		72mm
Number of characters per line	Font A(12x24)	51
	Font B(9x16)	68
	Korean A(24x24)	25
	Korean B(16x16)	38
Printing speed		Max 200mm/s
Font size	Font A(12x24)	1.50 x 3.00mm
	Font B(9x16)	1.13 x 2.00mm
	Korean A(24x24)	3.00 x 3.00mm
	Korean B(16x16)	2.00 x 2.00mm
Number of characters		English 95
		Extended characters (Code page) : 128 x 10
Barcode	1 Dimension	UPC-E, EAN8, EAN13, ITF, CODABAR, CODE39, CODE93, CODE128
	2 Dimension	PDF417, QR CODE
Cutter		Guillotine method (complete cutting, partial cutting possible)
Interface	Serial	RS232C
	USB	USB2.0 Full Speed
Receiving Buffer		4Kbyte
SMPS rating	Input voltage	24V(DC)
	Output current	2.5A 60W
Life (25°C, standard condition)		Head 100Km(100 million pulse) Cutter : 1,000,000 times (for print duty 12%, it may vary slightly depending on the paper used.)
Temperature range		Operating temperature -20°C ~ 60°C(#1) Storage temperature -25°C - 60°C
Humidity range		Operating humidity 40 - 85% RH (non-condensing) Storage humidity 40 - 95% RH

(#1) Guaranteed operating temperature range of the product is only from 0°C to 45°C, the

guaranteed life time of product may be reduced if used outside the guaranteed temperature range.

2. Interface Specification

1) USB

- Standard : USB 2.0 Compatible, Full Speed(12Mb) response

- Connector : Type B

- Cable : USB2.0 Standard Cable

- Data Method : Bulk IN, Bulk OUT

  * Bulk IN : End point 6

  * Bulk OUT : End point 2

  * Full Speed : Max Packet Size 64 Byte(Bulk OUT),64 Byte(Bulk IN)

2) Serial (RS-232C)

- Data Transfer Method : Serial

- Handshake : Hardware (RTS/CTS or DTR/DSR)

- Baud Rate : 9600, 19200, 38400, 57600, 115203., BPS

- Data Bit : 8 bit

- Parity : None, Odd, Even

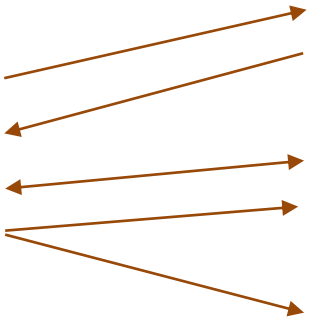
- Stop Bit : 1, 2 bit

- Connector: Hanlim CHD1140-4

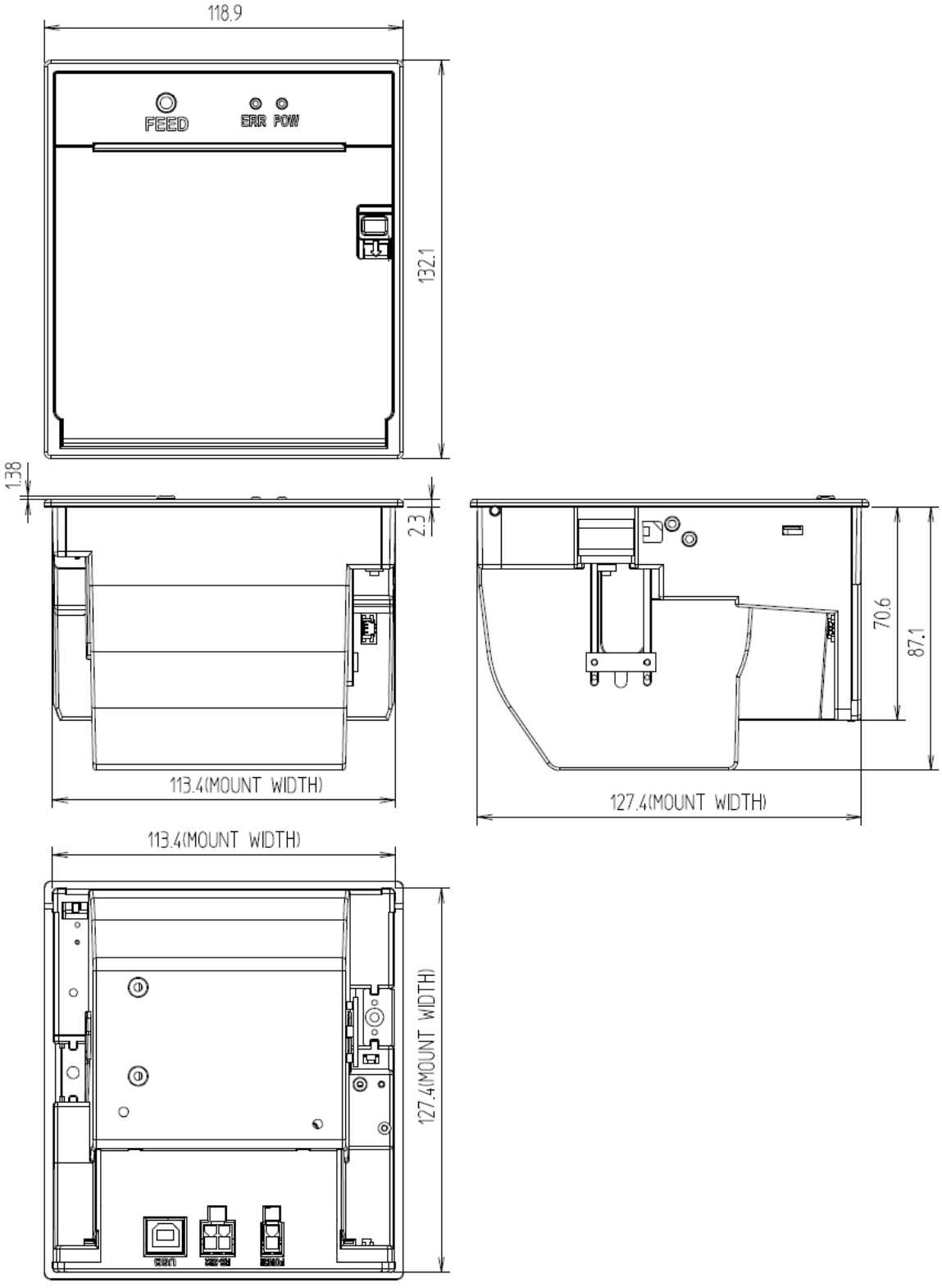
- Cable : DSUB9(Female) - 4pin Custom Cable

Printer

Pin	Signal	I/O
1	TxD	Output
2	RxD	Input
4	GND	-
3	RTS	Output



Host

Pin	Signal	I/O
1	DCD	-
2	RxD	Input
3	TxD	Output
4	DTR	Output
5	GND	-
6	DSR	Input
7	RTS	Output
8	CTS	Input
9	RI	-

Ⅶ. External Dimension