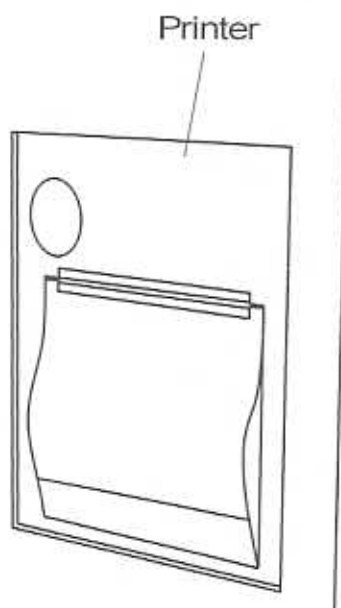# Chapter 1   Digital Printer

1. General Information

[1] Features

☐The printer prints out such information as sterilization starting time, set sterilization temperature, set sterilization time, chamber temperature, etc. during operation.

[2] Outer view

Printer

2. Before Using

☐NOTE

☐ Red lines will appear on both side edges of the paper when nearing the end of the roll. Load a fresh roll before making further printouts.
☐ Printing is not available for Mode 4
☐ Thermal paper will discolor with heat, therefore beware of the following.
   ☐Keep spare rolls in a dark cool place.
      ☐Do not rub paper with hard objects.
   ☐Keep paper away from steam and heat.

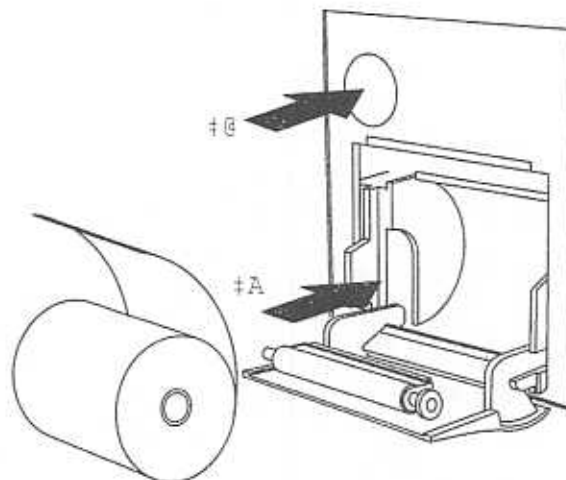☐ Check the following accessories are included with your printer.
   ☐Paper roll................   2 rolls

3. Operation
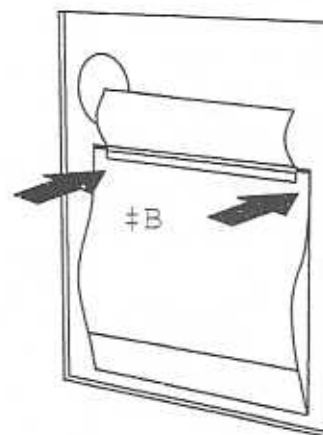
[1] Replacement of paper roll

☐ Press the button to open the paper cover.

☐ Place new paper roll. The paper edge should be upward as shown in the diagram.

☐ Secure a paper margin to let the paper edge out of the printer, and close the cover by pushing cover's both sides of upper area.
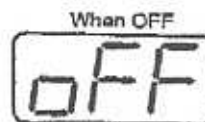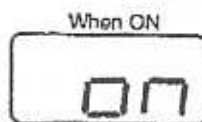
[2] Switching the printer ON/OFF

● You can switch the printer ON/OFF as described here following.

① While the autoclave is in the ready state, press the FUNC switch 3 times.
  • The PRINT lamp will light up and the ON/OFF state (whichever) will appear on the digital display.

When ON

on

When OFF

oFF

② Press the SET/ENT switch.
  • The ON (OFF) display will start flashing, signaling that switching is now possible.

③ Switch the printer ON/OFF with the setting buttons (▲, ▼).
  The display shows on - oFF every time you press one of the buttons.

④ Press the SET/ENT switch.
  • Once the setting has been entered, the autoclave will return the ready state. The PRINT lamp will be lit up if the printer has been turned on and out if it has been turned off.

─── To cancel changes ───

● You can press the MODE switch while performing the above steps to cancel the operation. The autoclave will return to the ready state without changing the setting.

─── △ NOTE ───

● The printer ON/OFF setting is stored in the back-up memory even when power is turned OFF or a power failure occurs. However, if the back-up battery runs down, the printer will automatically start up in the ON state when power to the autoclave is turned ON.

Data Output of Digital HV Series Autoclave Printer

When the sterilization begins, the printer outputs the following data. Printing is not performed in mode 4 (agar cycle)

```
*HIRAYAMA MFG CORP*        ← Printing starts when the START/STOP button is pressed.
Date:  30 Nov 2005         ← Date
-----------------
Time:     11 : 51          ← Time
-----------------

Name:
-----------------
Cycle Count:    0002
***   Setting   ***
Mode:2         Liquid      ← Type of program selected
Ster.Temp:   121 °C
Ster.Time:    20min.       ← Sterilization parameters
Exhaust %:    10 %
*** Cycle Start ***
Time|Temp|Pres|Stat
 000 014 0.00 HEATG
 003 015 0.00 HEATG
 006 020 0.00 HEATG        ← Elapsed Time, Temperature, Pressure and Cycle Status
 009 029 0.00 HEATG
 012 049 0.00 HEATG
 015 074 0.00 HEATG
 018 094 0.00 HEATG
 021 101 0.01 HEATG
 024 103 0.01 HEATG
 027 110 0.04 HEATG
 030 118 0.08 HEATG
 032 121 0.10 STER.        ← Sterilization in progress
 033 121 0.10 STER.
 034 121 0.10 STER.
 035 121 0.10 STER.
 036 121 0.10 STER.
 037 121 0.10 STER.
 038 121 0.10 STER.
 039 121 0.10 STER.
 040 121 0.10 STER.
 041 121 0.10 STER.
 042 121 0.10 STER.
 043 121 0.10 STER.
 044 121 0.10 STER.
 045 121 0.10 STER.
 046 121 0.10 STER.
 047 121 0.10 STER.
 048 121 0.10 STER.
 049 121 0.10 STER.
 050 121 0.10 STER.
 051 121 0.10 STER.
 054 114 0.06 EXHT.        ← Steam venting in progress
 057 107 0.02 EXHT.
 060 101 0.00 EXHT.
***  Complete   ***        ← Sterilization cycle is completed.
```