

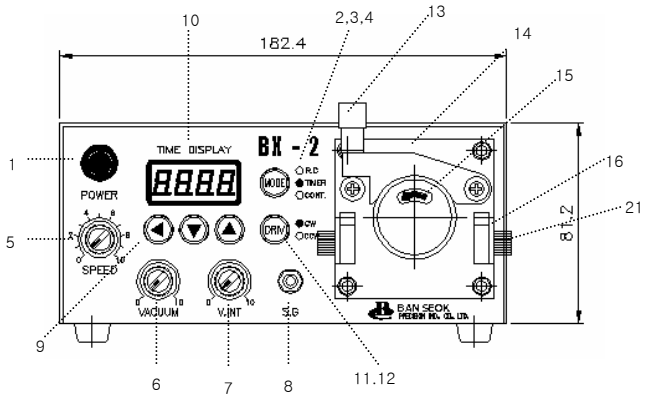
**BX-2**  
Metaroll Pump Dispenser  
User Manual

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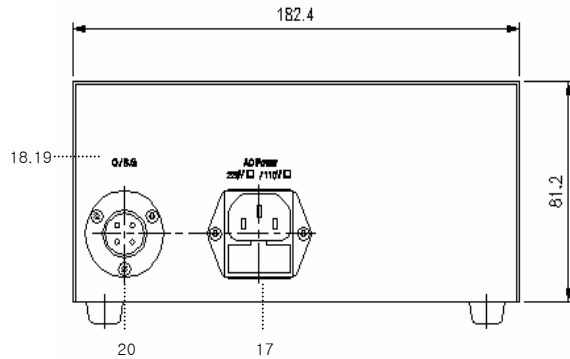
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# 1. Parts and Description



«Figure 1 : Frontage»



«Figure 2 : Backside »

1	Power Switch	Led Lamp signals that the switch is on.
2	RC Mode	A Remote Control Mode when operating LED flickers
3	Timer Mode	Time range : ~ 99.99 sec.
4	Cont. Mode	Continuous Operation
5	Speed Adjustment Dial	Adjust the deposit size (0 ~ 10 VOLUME)
6	VACUUM Adjustment Dial	The liquid cutting mechanism after ending of discharge operation.
7	VACUUM Interval Timer	Adjustable within 0 ~ 3 sec.
8	Manual INPUT JACK	Finger / FOOT S/W plug
9	Time Set Button	To fix liquid outlets 0.01 ~ 99.99 sec.
10	Timer Display	LED counts down.
11	CCW/CW Fix S/W	CCW : Counterclockwise
12		CW : Clockwise
13	Guide Lock	To lock a tube guide
14	Tube Guide	To support a tube installed in a roller
15	Roler Head	To extract liquids from a tube.
16	Tube Holder	To hold tube at the both ends which are supported by a roller.
17	Electric Code	1.5 Meter
18	Out Signal	When dispensing is finished, it generates output signals.
19	Remote Signal Input	Same as #8
20	Hand S/W	For a manual operation. Teflon tube 1M (option)
21	Bottle Holder Fix Pin	To fix a bottle holder (Option)

## 2. Specification

Type	Metaroll Pump Dispenser
Model	BX-2
Time range	0.01 - 99.99 sec
Rotor Speed	- 120 rpm (max.)
Flow Speed	0.01 - 6 ml/min.(Teflon tube) 0.1 - 20 ml/min. (Silicon tube)
Dispense Pressure	over 1.5kg / cm2
Direction of Pump	Both direction (Forward / Reverse)
Power source	AC 220V/110V, 50/60Hz
measurement	182.4mm x 81.2 x 171mm
weight	3 kgs

### Additional Function :

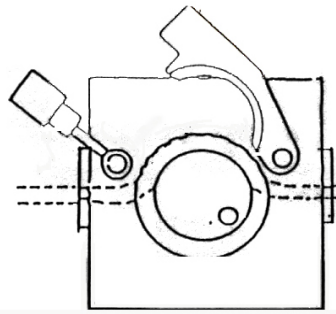
The liquid cutting mechanism enables adjustment in negative pressure for the Negative pressure (instantaneous reverse rotation) mechanism on ending of discharge operation.  
Further, adjustment in the interval time which is set before negative pressure operation is also adjustable.

## 3. Operation Guide

- Put the plug into the outlet. Turn the power on
- Set the tube onto the roller (please refer to figure #3).
- Set the direction mode and operation mode.
  - ① Liquid flowing direction ; CW : Reverse \* CCW : Forward
  - ② Operation mode ;
    - \* R.C : Finger/Foot S/W
    - \* TIMER : To set operating time
    - \* CONT : For continuous use.
- : To hold operation or stop, press either STOP or RC, or press TIMER to stop
- Set negative pressure / interval times according to your operation.
- Press Finger/Foot S/W to start operation.

### Set the Tube :

- As shown in the right picture, press 'Guide' to loose a bolt and release Guide.
- Put the tube into the right groove of a tube to set a roller.
- Put the rest of the tube body into the left tube Holders groove.
- After setting the tube, turn the roller around a couple of times to allow the tube-flexible movements.



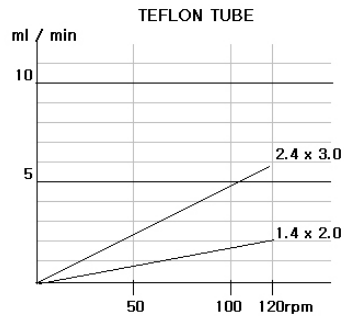
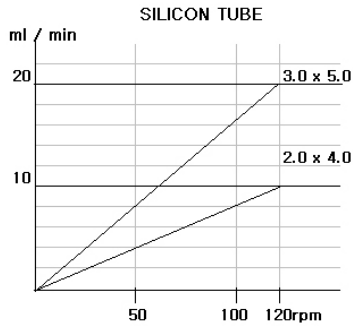
## 4. Trouble Shooting

Trouble	Cause	Solution
Pump does not move	Plug is not firmly connected	Connect the plug firmly
	The power switch is off	Turn the switch on
	Fuse is off	Replace the fuse with new one/1A
Tube moves when liquid is dispensed	Speed dial is set to 0	The the dial to accelerate speed
	Tube is not properly set in a groove	Set the tube appropriately
	Tube is not accustomed fully. (Teflon tubes only)	Get the tube accustomed well
Liquid does not dispense	Tube is not specified one for The machine type. (Teflon tubes only)	Use specified tube
	Guide is not properly set	Set the guide properly
	Guide support bolt is not firmly tighten up	Tighten the bolt up firmly
	Tube is not specified one	Use specified tube

### Note :

Clean the roller with cloth or other appropriates to avoide dusts.  
Pour additional oil into the roller once a month or two months.  
When any troubles arise, contact a selling agent or our company

## 5. Additional Data



## 6. Cautions and Reminders

- Use the nominal Voltage (AC 220V/110V, 50/60Hz)
- Don not remove the body cover.
- Do not remodel the body or any of its interior parts.
- Do not touch the pump, rolling parts and the rotor's inner parts while the pump is working
- Do not stick anything in the nozzle. It may cause a crack in the tube or a liquid dispersion.  
When inner rotor is stuck with liquids, please send it immediately for repairing.
- Do not place any unnecessary things on the body.
- The body should be placed on a working desk with a flat surface.  
Avoid falling or dropping
- When move the body, hold firmly with both hands  
Check if something oily or slippery is on the body or your hands are freasy when you move the unit.
- Do not use unspecified tube for the roller.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- When installing the controller, please be careful not to prevent the ventilating openings on the side of controller. Also, any materials must not be filled in .
- Please be sure to turn off the power when you input the hand switch to the controller.

## 7. Pump Head Types

Pump Head Types	Appropriate Tube and Size	
M	Teflon Tube	0.3 x 0.6
S	Teflon Tube	0.5 x 1.0 0.6 x 1.1 0.7 x 1.2
T	Teflon Tube	0.9 x 1.5 ~ 2.4 x 3.0
G	Silicone Tube	0.5 x 2.5 ~ 8 x 10

## 8. Environmental conditions for the equipment operation

- Indoor use only.
- Altitude up to 2000 m
- Temperature 5°C - 50°C.
- Maximum relative humidity 80%
- Mains supply voltage fluctuations not to exceed  $\pm 10\%$  of the nominal voltage.
- Transient over voltage according to INSTALLATION CATEGORIES (OVERVOLTAGE CATEGORIES) II
- POLLUTION DEGREE 2 in accordance with IEC 664

