

Tofutty

INSTRUCTION MANUAL



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1. PREPARATION BEFORE USE

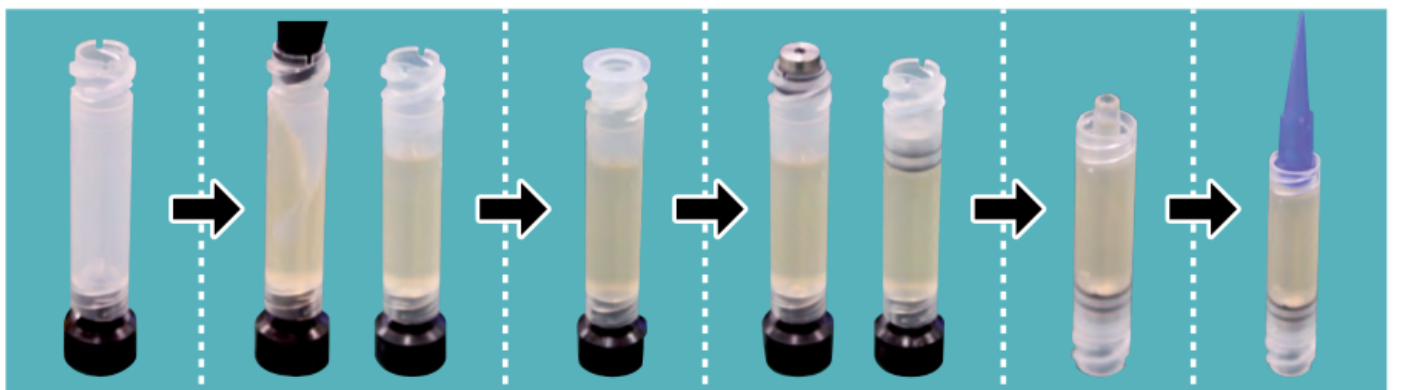
1-1 Before operating the pipetty

1. When insert the battery into the Tofutty, please make sure that the battery is fully charged. For initial use, first charge the battery fully.



Battery : AAA Nickel hydride battery
(Recommended: Panasonic, EVOLTA BK-4HLD)

2. Fill the liquid to an exclusive syringe of Tofutty.



①Attach the cap ②Filled with a liquid ③Deforming ④Insert the plunger ⑤Remove the cap ⑥Attach the nozzle

3. After the battery attached, the software version is displayed on the LCD. Then, when you press the SELC / ENT key, it will be the mode selection screen.

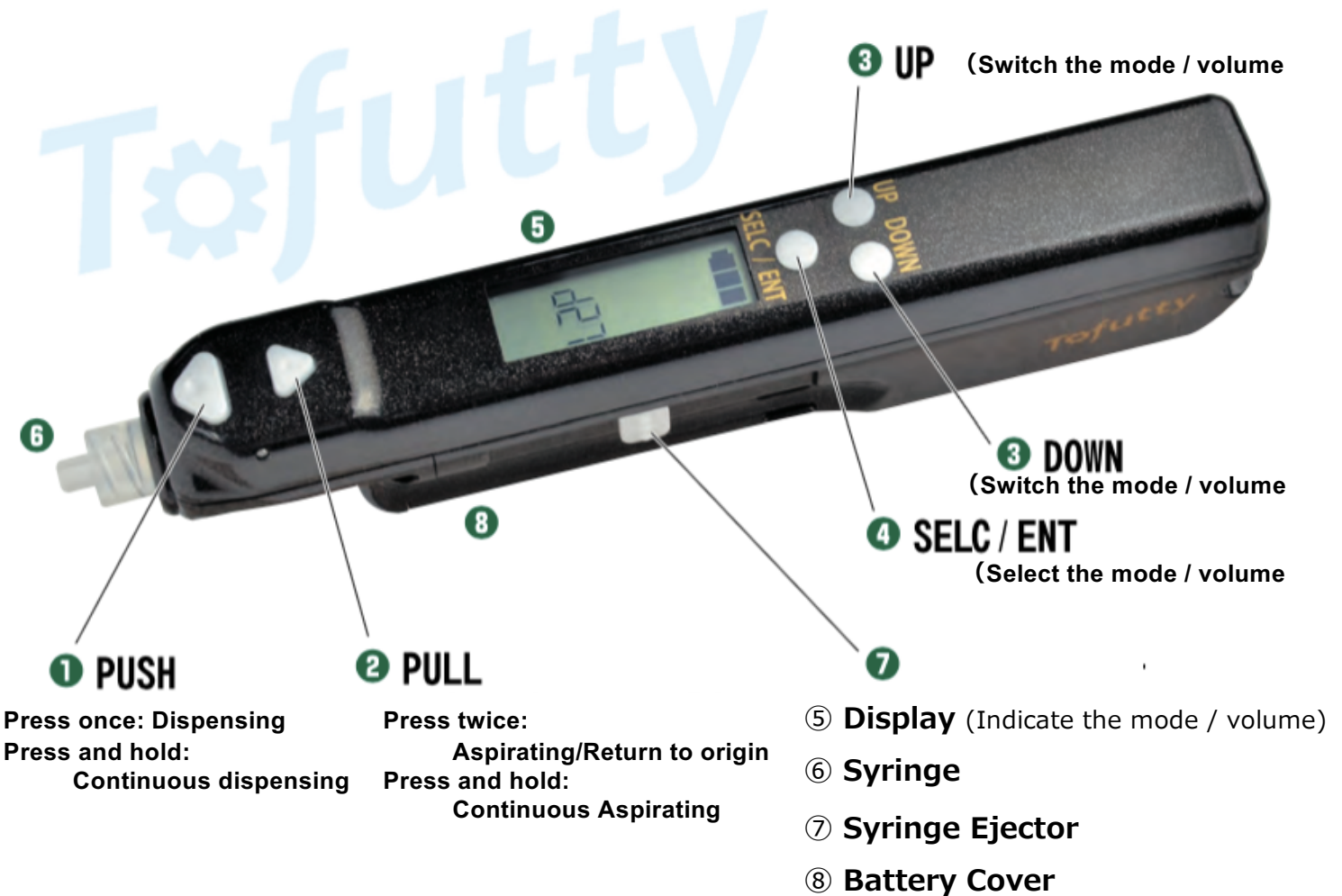


Functions will change by press the SELC / ENT key.

→ Sht → Sbc → SP1 → SP2 → bEP

1. PREPARATION BEFORE USE

1-2 Name and functions of keys and display



Battery mark

OPERATION MODE

- S h t** (Shot) dispensing volume of single shot
- S b c** (Suck back) Volume of Suck buck
- SP 1** (Speed) Setting of dispensing speed
- SP 2** (Speed) Setting of aspirating speed
- b E P** (Beep) Setting of beep

Indicate the volume

Lights when dispensing or aspirating available

2. FUNCTION AND HOW TO USE

2-1 S h t (Shot) Mode

Sht mode is basic mode of Tofutty. Dispensing a quantitative volume by press the PUSH key once, and continuous dispensing by the long press.



1. Switch dispense volume by press UP or DOWN Key.
2. Select the number by press SELC/ENTER Key.
3. Setting complete when START is indicated in display.
4. Start the dispensing by pressing PUSH Key.

2-2 S b c (Suck buck) Mode

Sbc mode for setting the volume of the suck back after dispensing.



1. Switch suck buck volume by press UP or DOWN Key.
2. Select the number by press SELC/ENTER Key.
3. Setting complete when START is indicated in display.

Suck buck: Prevent the liquid dripping from the nozzle tip by pull back the piston after the dispensing.

◆ Setting of suck buck volume (Reference)

- Viscosity $\sim 5,000\text{mPa} \cdot \text{S}$ ————— 0 $\sim 1,2$
- Viscosity 5,000 $\sim 20,000\text{mPa} \cdot \text{S}$ ——— 1.0 ~ 2.0

Caution: Suck back volume will vary depending on the characteristics of the liquid to be used.
Please use to adjust the set volume.

2. FUNCTION AND HOW TO USE

2-3 **SP 1 · 2 (Setting of Speeds) Mode**

SP1 · 2 mode for setting the speed of dispensing and aspirating.

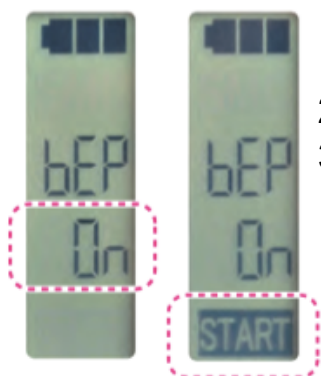


1. Switch speed (Hi/Sc/Lo) by press UP or DOWN Key.
2. Select the speed by press SELC/ENTER Key.
3. Setting complete when START is indicated in display.



2-4 **bEP (Setting of beep) Mode**

bEP mode for switch ON/OFF of buzzer when operating Tofutty.



1. Switch buzzer ON/OFF by press UP or DOWN Key.
2. Select by press SELC/ENTER Key.
3. Setting complete when START is indicated in display.

2. FUNCTION AND HOW TO USE

2-5 Other function

【In case for fill the liquid of syringe with cartridge attached.】



(Picture1)

(Picture2)

(Picture3)

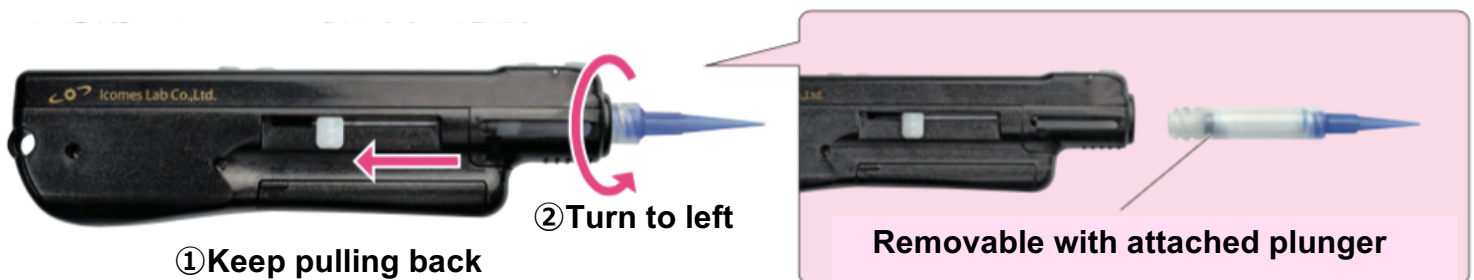
(Picture4)

1. Attach the empty cartridge, press and hold the PUSH key until it stops with buzzer. (Picture1)
2. The nozzle tip dipped in liquid, and aspirate by press and hold the PULL key. (Picture2)
3. Remove the nozzle used for the aspirating, pull out the air by turn the cartridge into upward.
4. Attach the nozzle and keep press the PUSH key until liquids comes out.

Caution: Please use more than 15 gauge of the nozzle.
※Nozzle for aspirating is sold separately.

3. MAINTENANCE

【How to remove the syringe】



4. TROUBLE SHOOTING

Due to repeatedly dispensing and aspirating various liquids the electric dispenser easily succumbs to damage. In the event of device failure consult the following table. Request repair to your local distributor if still does not solve the problem.

Problem	Reason	How to fix
Device will not dispense	Internal error	Reattach the battery
	Battery charge insufficient	Charge the battery
	Using the liquid which outside of range of viscosity	Change the speed to "Lo"
	Narrow tip diameter of the nozzle	To use more than recommended size of the nozzle.
Device won't turn on	Battery charge insufficient	Charge the battery
Dispensing volume is not stable	Syringe is not attached properly	Reattach the syringe properly
	Suck back volume is not setted properly	To adjust the suck-back volume
	Loosening of the nozzle	Re-tighten the nozzle
	Air contamination in the syringe	Defoaming the air
	Clogging of the nozzle tip	Change the nozzle
Device produces an ubnormal noise	Using in a environment outside of range	Use under 10 °C~30 °C of environment

5. FOR SAFE USE

Precautions on product use and handling battery

DANGER

This instrument is not an explosion proof instrument. Do not use this product in an environment where there is a risk of explosion or use it for explosive chemicals that may cause explosion.

1. Do not use for purposes other than liquid handling.
2. Do not use radioactive material, including the radiation liquid.
3. Do not use the liquid of bio-hazard.
4. Although this product is excellent in chemical resistance, do not use following chemicals that cause of body damage.
(Strong acid, strong alkaline, acetone, and trichloroethylene)

CAUTION

Do not attempt to disassemble or repair this product by yourself. TROUBLE SHOOTING” when it appears that the product has a mechanical error.

1. Do not modify this product. It will be the cause of the accident.
2. Use our specification of the battery. If you use the other battery, it will be cause of the leak, overheat, rupture or ignite. And also performance will degrade.
3. When storing, please avoid the location of the dusty or high humid place. It will be the cause of the failure.
4. By repeating the dispensing and aspirating, the continuous number of operations will be reduced. If necessary, replace to new battery.

5. PRODUCT SPECIFICATION

Size	H:149mm , W: 22.5mm , D: 38mm
Weight	75g
Capacity	1,000 μ L(1cc)
Power	AAA battery (Ni-MH) (Specify:Panasonic rechargeable battery EVOLTA)
Syringe nozzle	General-purpose needles are available (Recommendation:Musashi Engineering taper nozzle 22G)
Viscosity	Under 20,000mPa
Repeatability(CV)	Coefficient of variation:10%(1 μ L)
Syringe	Clear syringe (Material:Polypropylene) UV block syringe (Material:Polypropylene)

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