

# Hybrid Pipette

BE ORIGINAL  
**NICHIRYO**

# Nichipette HB

## Nichiryo Hybrid Pipette Debut !

*Nichipet HB is next generation of pipetting tool.  
This pipetting tool is usable in either of a manual  
operation mode or a motorized operation mode.*

As well known, pipettes are roughly divided into two types according to their operating method ; hand-operated (manual/mechanical) pipettes and motor drive (electric hand held) pipettes.

The manual (mechanical) pipette : -

- 1) Good for delicate operation of liquid handling.
- 2) Require some skill to perform a stable pipetting operation.
- 3) Require much physical strength to treat a large number of specimens.

The motorized pipette : -

- 1) Many kind of liquid handling modes and useful functions are installed.
- 2) Difficult to control the pipetting delicately.
- 3) Can not continuously be used for a long period of time because of the limited battery capacity.

Both pipette have the above-mentioned characteristics, and this Hybrid Pipet Nichipet HB is launched by considering those features and benefits. It is possible to perform a stable pipetting operation and treat a large number of specimens in the motorized mode. Also if you select the mechanical (manual) operation mode, it is possible to control a pipetting operation delicately.

**Now NICHIRYO delivers the Harmonization of two pipetting technologies to you.**



## Specification

|                   |                                     |
|-------------------|-------------------------------------|
| Volume range      | 20-200ul, 100-1000ul                |
| Filter            | Only 100-1000ul model               |
| Tip ejector       | Manual                              |
| Design            | Right / Left handed                 |
| Battery           | Lithium-Ion 3.6V 800mAh             |
| Battery endurance | Up to 2,000 strokes ( full charge ) |
| Motor             | 2 phase stepping motor              |

## Price

|       |  |
|-------|--|
| Price |  |
|-------|--|

## Function

|                     |   |
|---------------------|---|
| Automatic power-off | After 15 minutes no action  |
| Parameter memory    | As for setting value of each mode, the last time value is stored automatically. |
| Battery alert       | Battery charge state is displayed by 3 phases marking.                          |
| Counter             | Cycle counting number is displayed on the screen (depend on Mode)               |
| Automatic blow-out  | Motor returned to the starting point automatically before power off.            |
| Motor speed control | 5 steps (Mode 10)   |
| Date & Time setting | Input year, month, day and time (24 hours) (Mode 11)                            |
| Beep sound ON/OFF   | Can be select beep-sound ON and OFF (Mode 12)                                   |
| Electric charge     | AC adapter (Possible to operate unit with charging) Pipet Stand (Option)        |

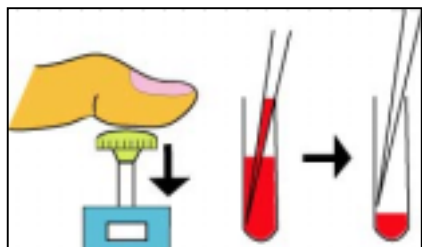
## Accuracy & Imprecision

|                 | 00-NHB-200 |        | 00-NHB-1000 |        |
|-----------------|------------|--------|-------------|--------|
| Accuracy (%)    | 20ul       | ± 3.0% | 100ul       | ± 3.0% |
|                 | 100ul      | ± 1.2% | 500ul       | ± 1.2% |
|                 | 200ul      | ± 0.8% | 1000ul      | ± 0.8% |
| Imprecision (%) | 20ul       | < 1.0% | 100ul       | < 1.0% |
|                 | 100ul      | < 0.3% | 500ul       | < 0.3% |
|                 | 200ul      | < 0.2% | 1000ul      | < 0.2% |

## Operation modes

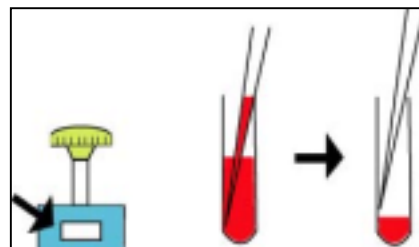
|        | Name   | Setting   | Operation | Description  |
|--------|--|---|-----------|--|
| Mode 1 | <b>Mechanical Pipetting</b><br>MANUAL Mode                             | Dispense volume   | Manual    | In case of <b>manual</b> operation, set the dispense volume.   |
| Mode 2 | <b>Pipetting</b><br>PIPET Mode   | Dispense volume   | Motorized | Pick up the selected volume, and then dispense at a time.  |
| Mode 3 | <b>Multiple Pipetting</b><br>(automatic & manual )<br>MULTI PIPET Mode | Dispense number<br>Interval time<br>Pickup & Disp. volume | Motorized | Pick up the selected volume, and then dispense fixed volume.<br>Whenever push a switch - Manual<br>At setting intervals while a switch is pushed - Automatic |
| Mode 4 | <b>Sequenced Pipetting</b><br>DIFFER MULTI PIPET Mode                  | Dispense number<br>Pickup & Disp. volume                  | Motorized | Pick up the selected volume, then dispense different volume whenever push a switch.  |
| Mode 5 | <b>Dilution</b><br>DILUTION Mode                                       | Volumes<br>Pickup & Dispense                              | Motorized | Pick up the selected volume of liquid A and liquid B with air gap, and then dispense total volume.   |
| Mode 6 | <b>Mixing</b><br>MIXING Mode   | Mixing volume<br>Mixing time                              | Motorized | Repeat setting time, pick up and dispense.   |
| Mode 7 | <b>Pipette controller</b><br>DIGITAL MANUAL Mode                       | -   | Motorized | Pick up the liquid while push a switch, then dispense when push a switch after switch-off once again   |
| Mode 8 | <b>Calibration</b> mechanical operation<br>MANUAL CALIBRATION Mode     | Correct volume  | -         | Input corrected value of 100% point with electric balance.<br>( Only for mechanical operation )  |
| Mode 9 | <b>Calibration</b> motorized operation<br>MOTOR DRIVE CALIBRATION Mode | Correct volume  | -         | Input corrected value of 100% point with electric balance.<br>( Only for motorized operation )   |

### Mode 1



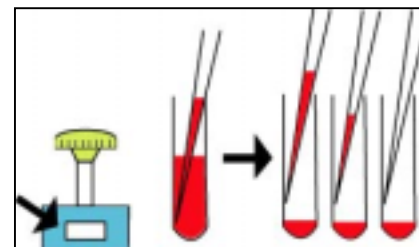
Push the push-button Pickup Dispense

### Mode 2



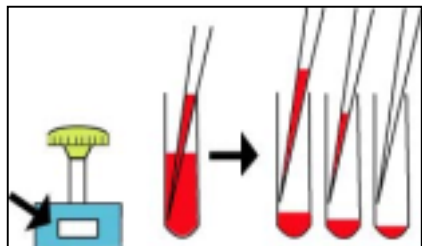
Push the switch Pickup Dispense

### Mode 3



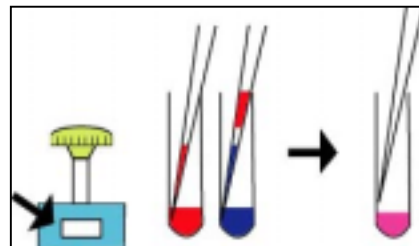
Push the switch Multiple dispensing

### Mode 4



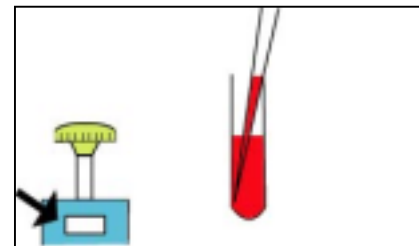
Push the switch Sequenced dispensing

### Mode 5



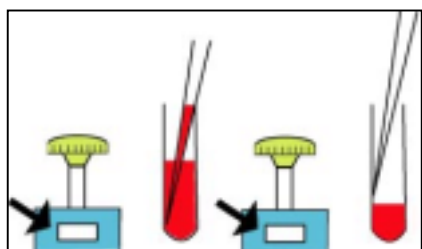
Push the switch Pickup Total dispense

### Mode 6



Hold the switch Mixing

### Mode 7



Hold the switch Pickup Hold the switch Dispense

### Disposable tip ( Autoclavable)

|             | Code             | Volume( $\mu$ ) | Color  | Q'ty |
|-------------|------------------|-----------------|--------|------|
| 00-NHB-200  | BMT-SG           | 2 ~ 200         | Yellow | 1000 |
|             | BMT-SGR (racked) | 2 ~ 200         | Yellow | 960  |
| 00-NHB-1000 | BMT-L            | 100 ~ 1000      | Blue   | 1000 |
|             | BMT-LR (racked)  | 100 ~ 1000      | Blue   | 1000 |

The specification and price subject to change without notice.

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