FACSCOPE™ B

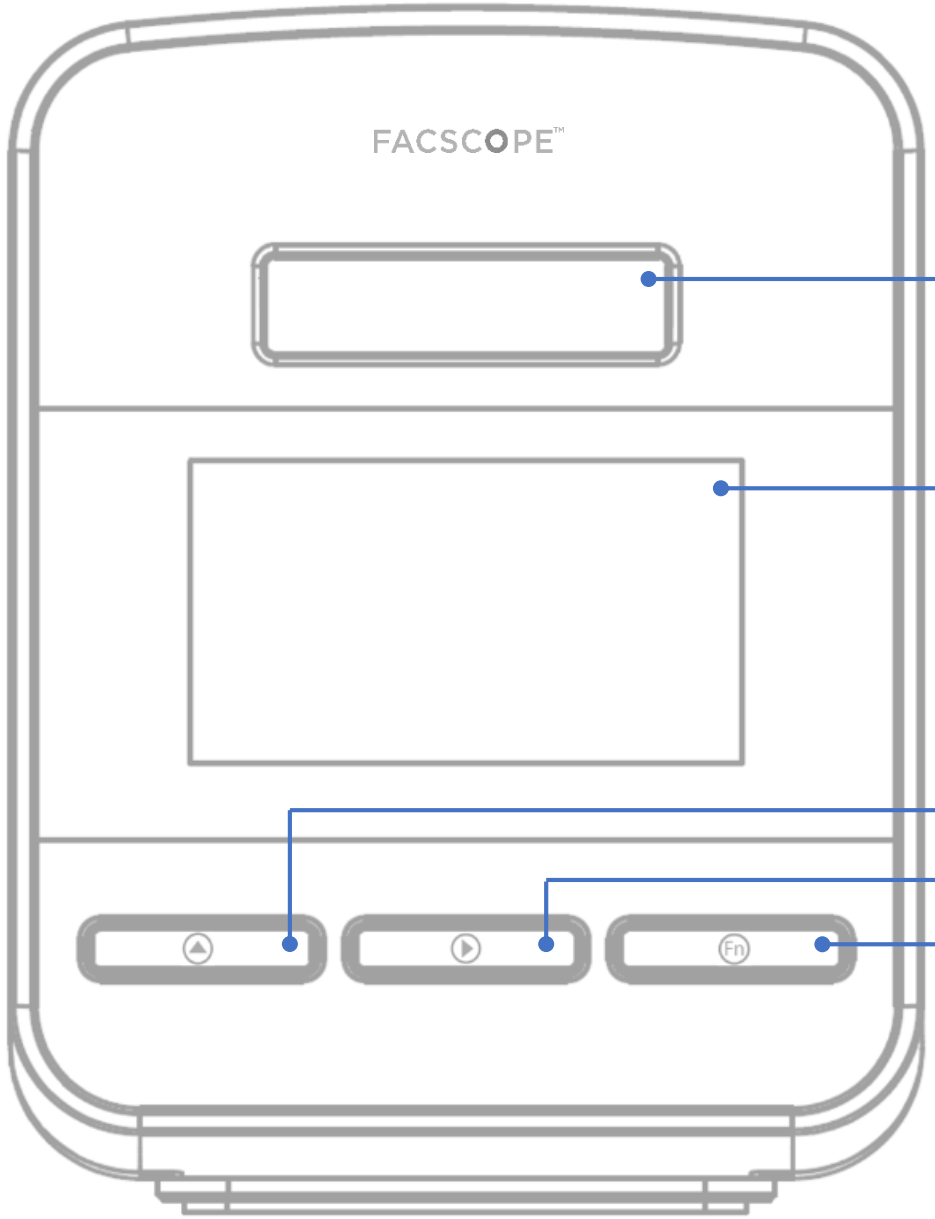
Automatic Bright-field Cell Counter

Quick Start Manual, Version 3.0

CURIOSIS

Device Layout

Front Layout



Slide Holder Door

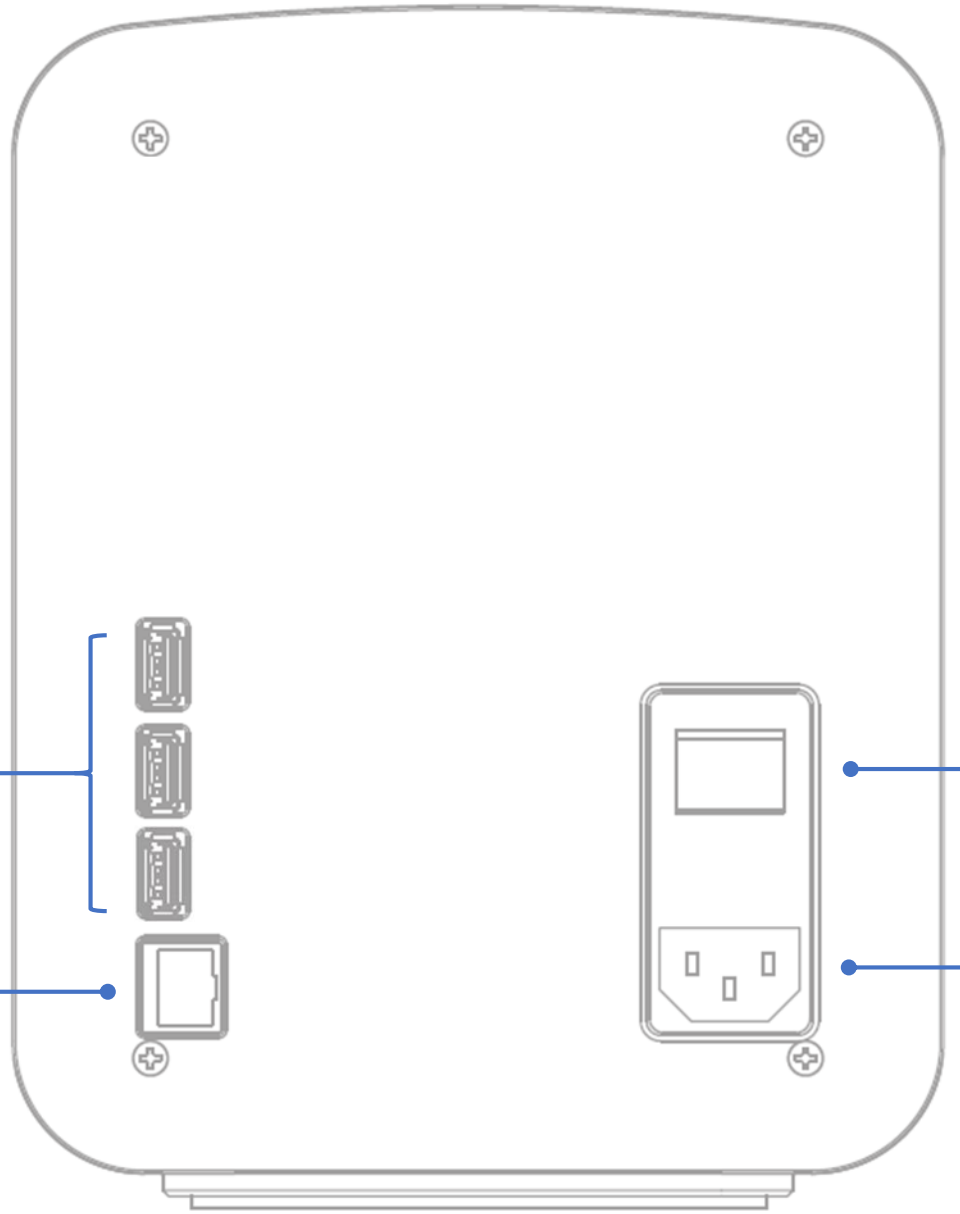
Touch LCD Display

Button 1(Insert/Eject slide holder)

Button 2(Home screen)

Button 3(Setting screen)

Back Layout



USB Port
- Keypad
- Barcode Scanner
- Thermal Printer
- USB Memory

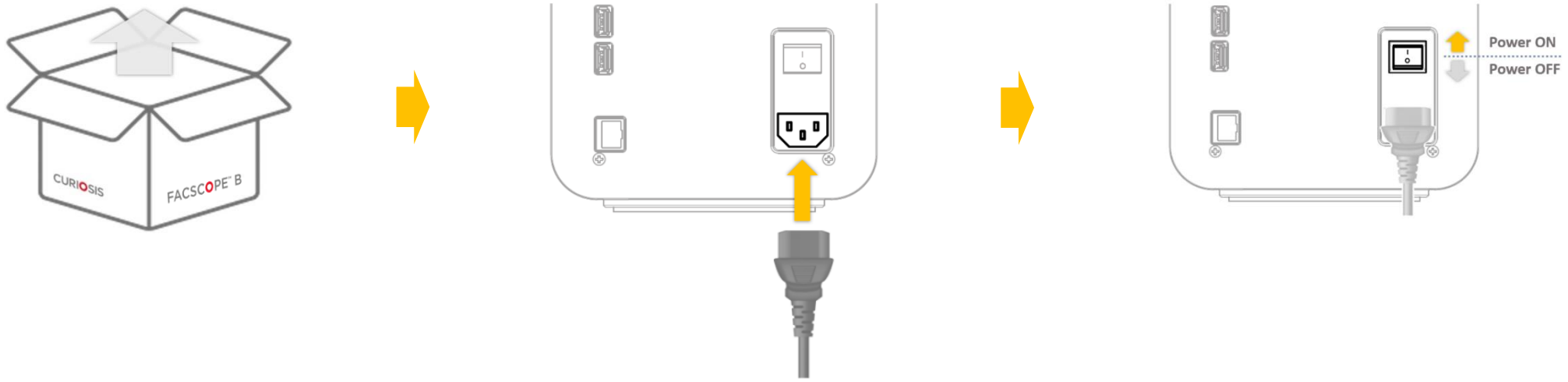
Ethernet Port
- PC Interface

Power Switch

Power Cable Socket

Basic Operation

1. Installation

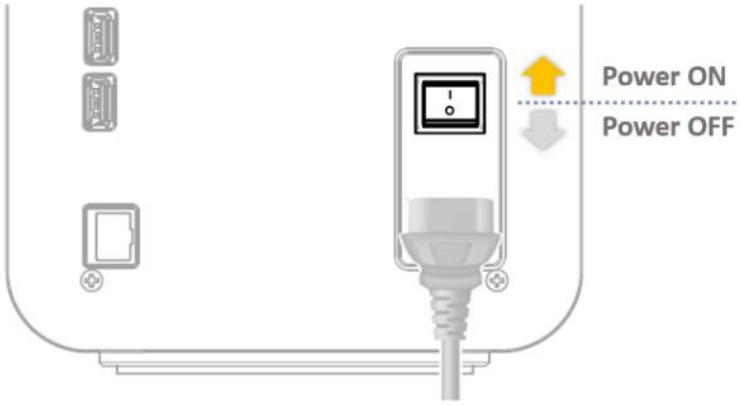


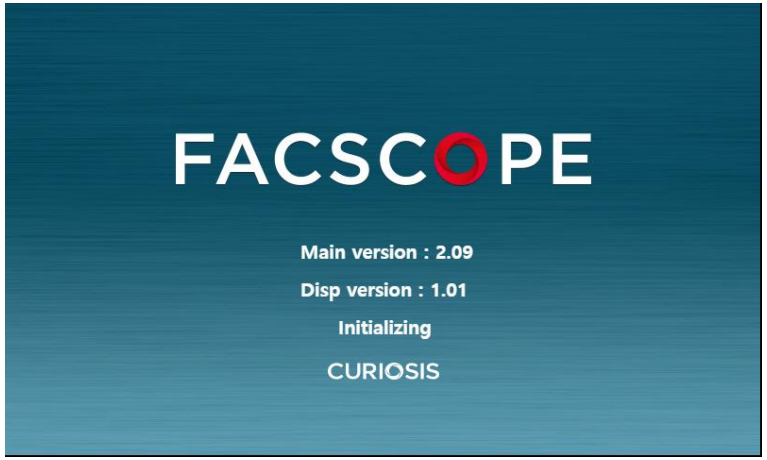
Step 1. Remove the product from the box.

Step 2. Connect the power cable.

Step 3. Turn on the device.

2. Power up

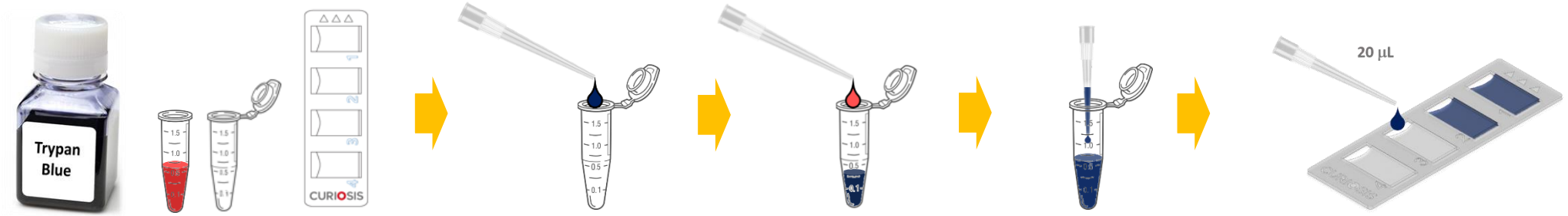




Initializing

Home screen
(Slide holder is automatically ejected.)

3. Sample preparation



Step 1. Prepare cell suspension, trypan blue, micro tube and C-slide.

Step 2. Place **at least 20 µL of trypan blue** in the micro tube and add **an equal volume of the cell suspension**.

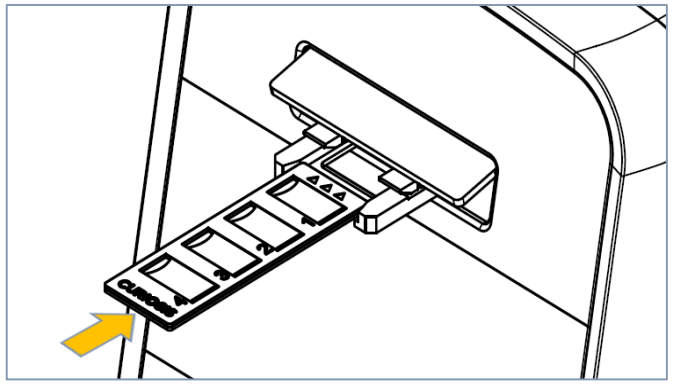
Step 3. Mix the sample in the micro tube by pipetting the vial 3~5 times gently.

Step 4. Load **20 µL** of the stained cell sample onto each channel of C-slide.

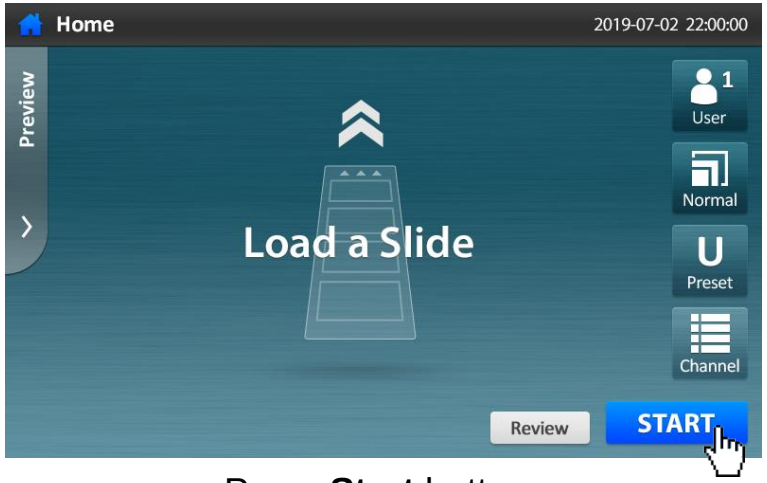
- ✓ Whole procedure should be done in clean area to avoid to decrease accuracy of counting due to dust.
- ✓ Before sampling the cell suspension, gently resuspend the cells at least 6 times.
  (Pay attention to avoid bubbles and check if there are any cell clumps or agglomerates.)
- ✓ The sampling should be in the middle of cell suspension, not on the surface or the bottom.
- ✓ When load the cell onto slide, ensure that bubbles should not be entered to the channel.

4. Start Counting _ Quick start

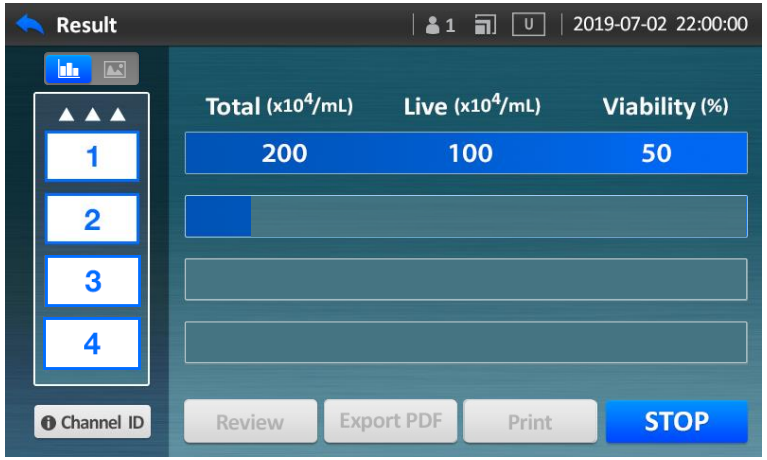
Home screen



Load a slide.



Press **Start** button.



Counting

Completion

Additional Operation

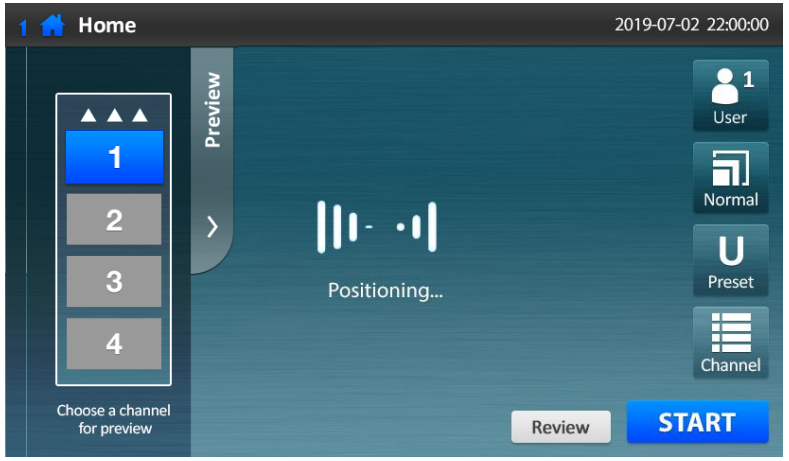
CURIOSIS

•Preview prior to counting

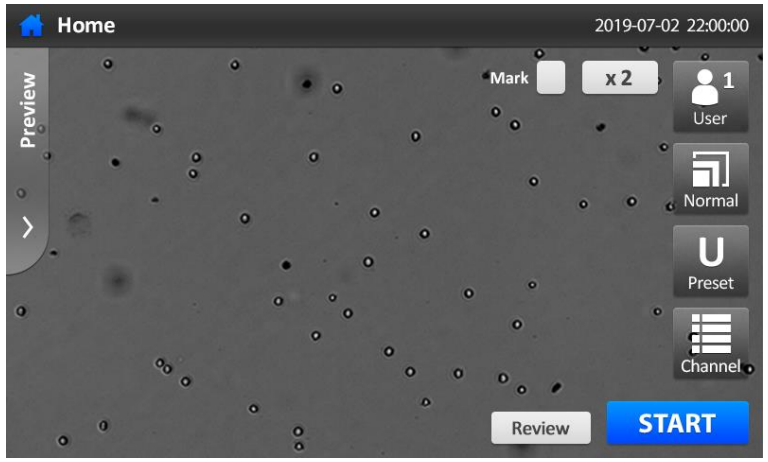
In the screen where you can see the cells, when tap the screen twice, some icons disappear.
To get icons again, tap the screen twice.

Load a slide and press **Preview** button.

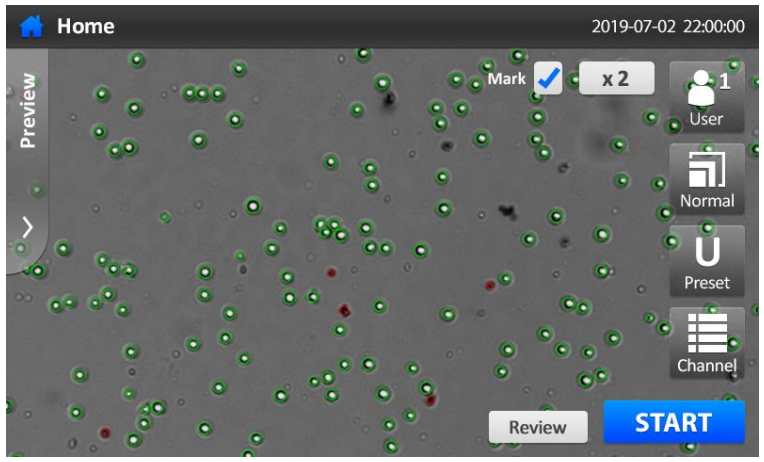
Select a channel to preview.



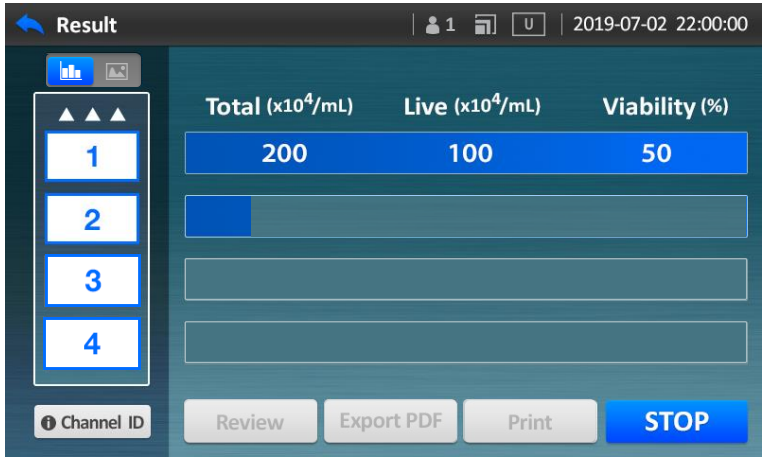
Positioning and Autofocusing



See the cell image of the selected channel.

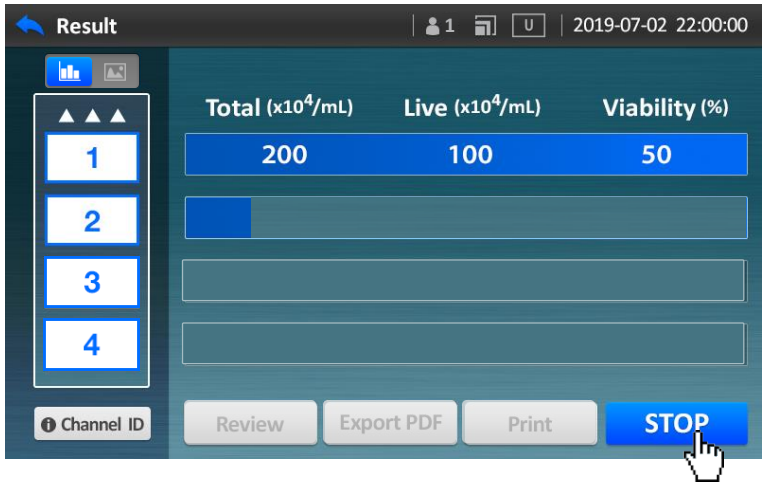


If press **Mark**, the detection mark is displayed according to the selected preset. ☑
Live/Dead definition can be modified at this stage.

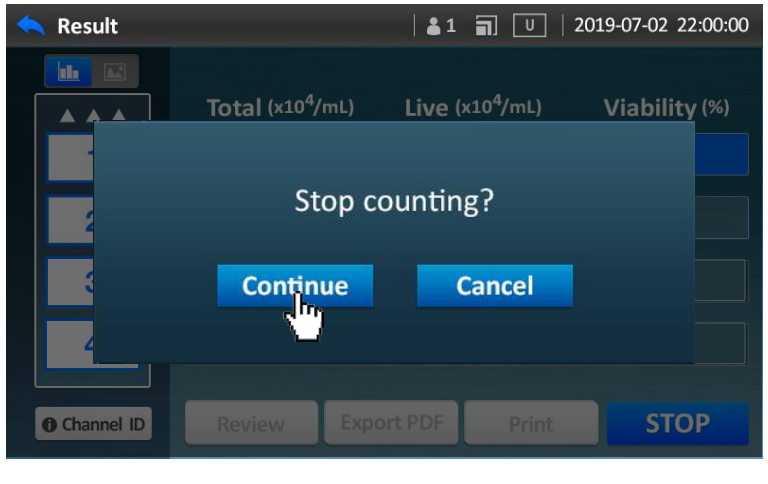


Counting

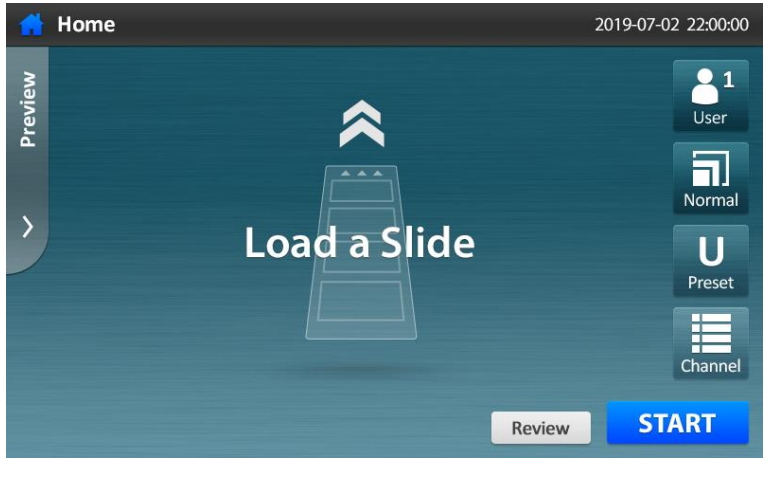
• Making a stop while counting



Press **STOP** button.

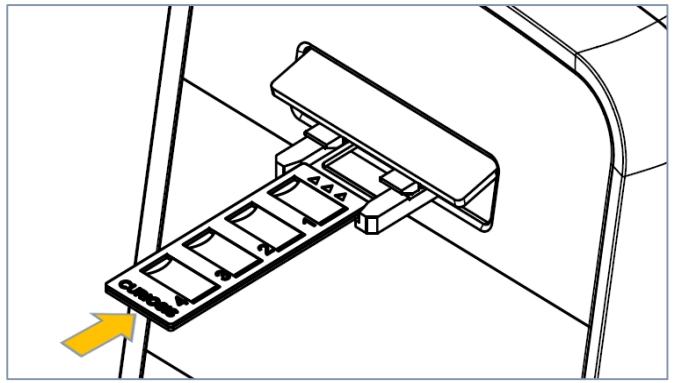


Press **Continue** button.



Counting has been stopped.

•Counting with setting option

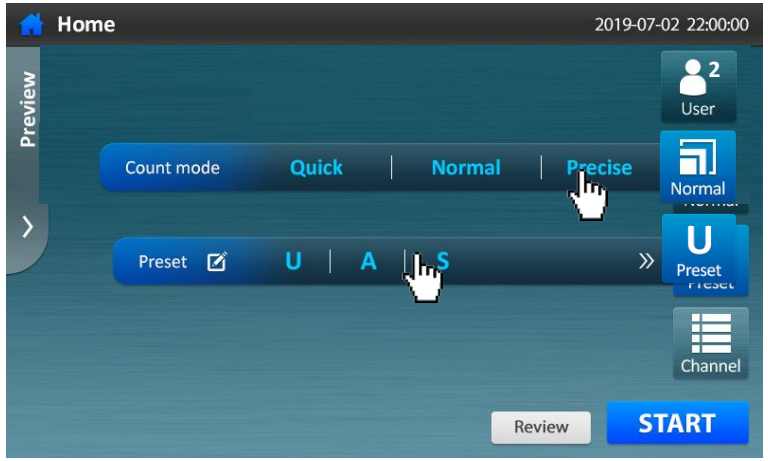


Load a slide.

Press the **User** button.

Select the **User 1/2/3**.

Press the **Normal**(Count mode) and **Preset** button.



Select Count mode and Preset.

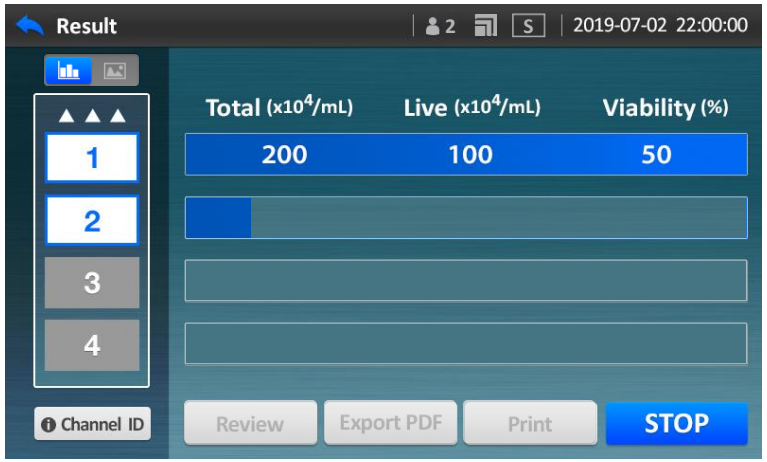
Press the **Channel** button.

Continue to the next page →

•Counting with setting option

Press the **Channels** to be disabled/enabled.

Press the **Start** button to count immediately.



Counting

Setting options for counting

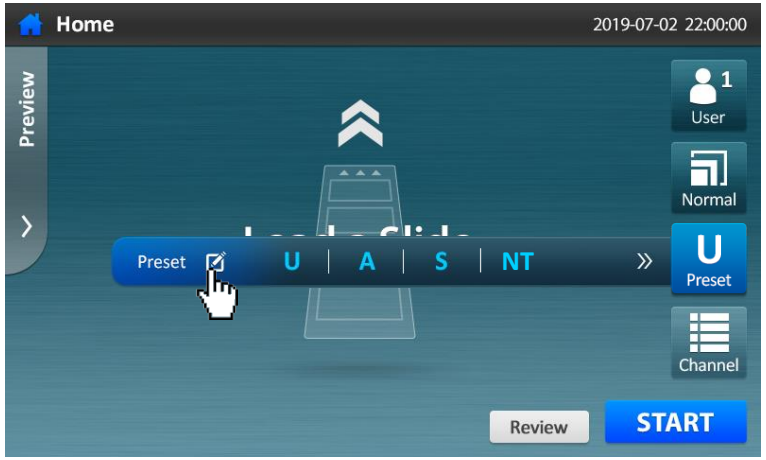
User : 1/2/3
Auto-saved data and presets can be managed as user number.

Count mode : Quick/Normal/Precise
Total counting area(The number of snapshots) is different from each count mode.
Quick mode: ≈ 0.15 µL (1 Frame)
Normal mode: ≈ 0.9 µL (6 Frames)
Precise mode: ≈ 3.6 µL (24 Frames)

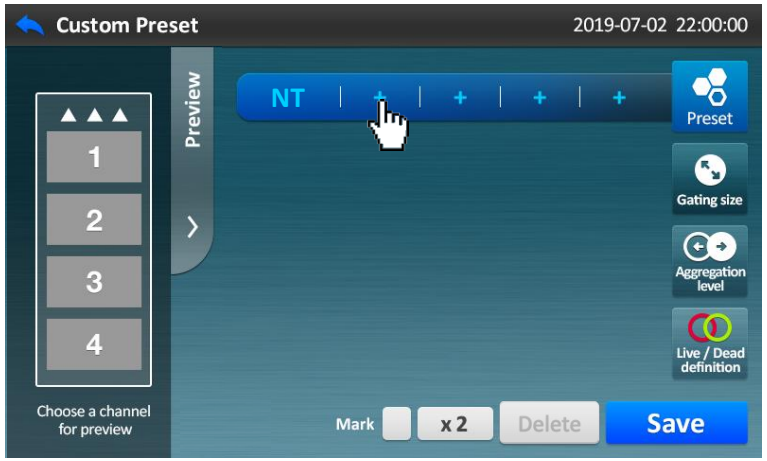
Preset
User-changeable parameters for cell recognition
3 kinds of fixed presets

Channel
Decide channels to be measured
White box: enabled channel
Gray box: disabled channel
Press a channel to toggle between enabling and disabling.

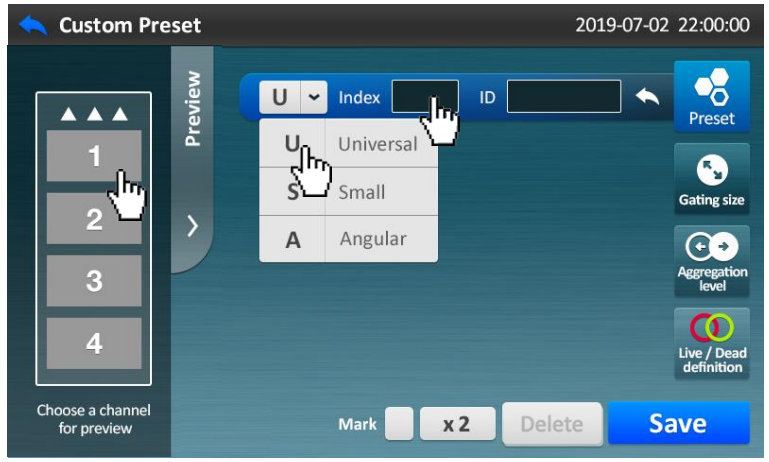
•Preset _ Create



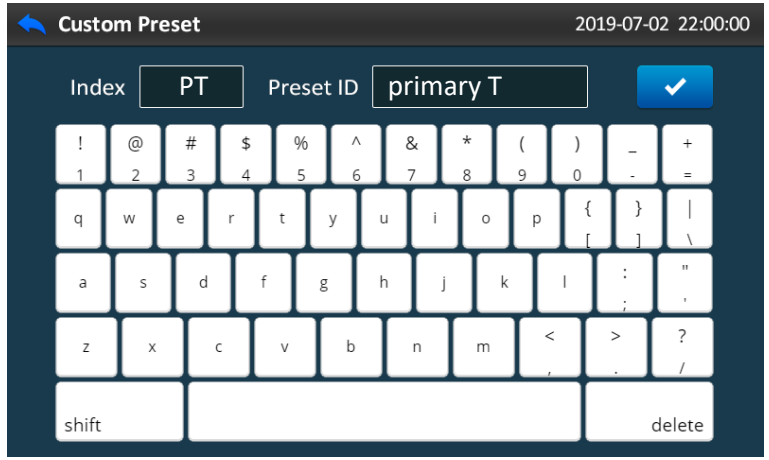
To create your own preset,
press **Preset** button.



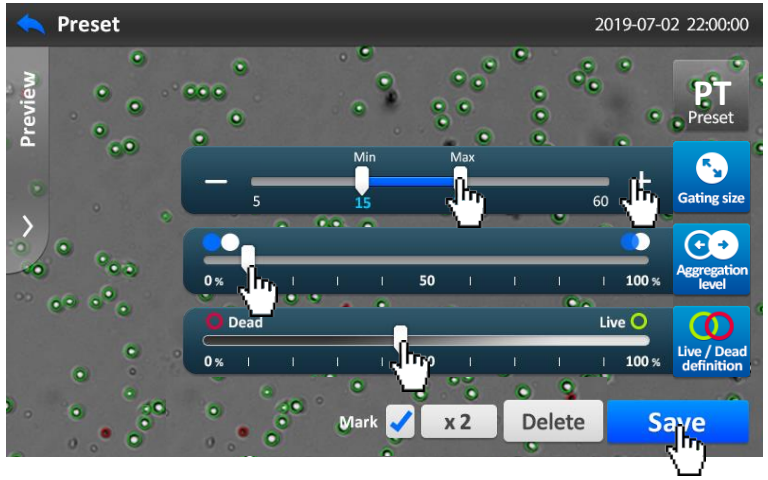
Press **Plus** button.



Select one of 3 fixed presets(Universal, Small, Angular),
and press blank beside **Index**.



Type the names of **Index** and **Preset ID**.



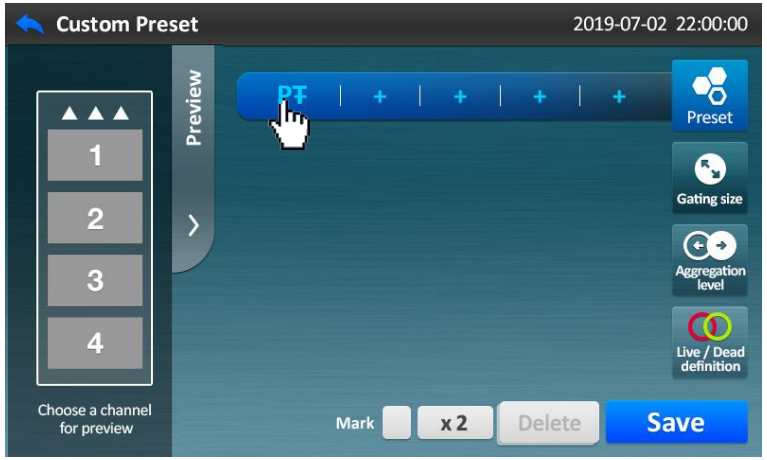
Adjust 3 kinds of parameters
(**Gating size, Aggregation level, Live/Dead definition**).

Ready to counting with a customized preset.

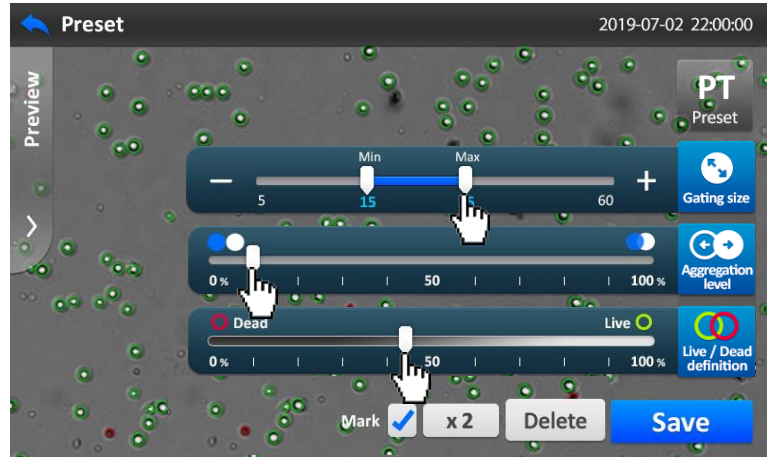
•Preset _ Edit

Users can manage **Preset** items.
3 fixed presets cannot be removed or edited.

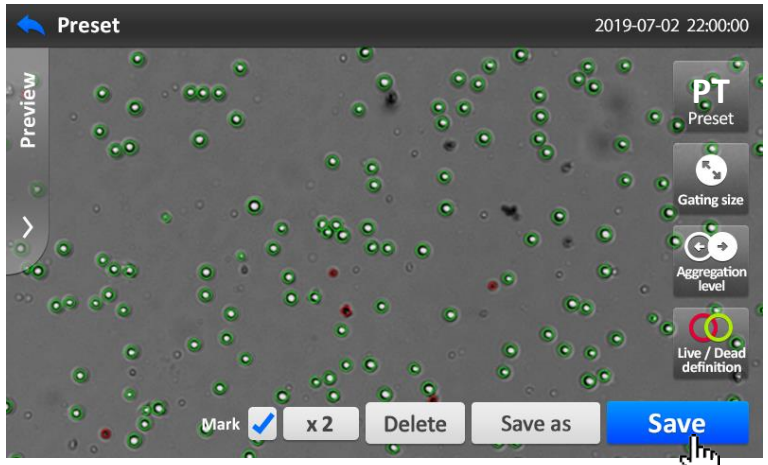
To edit your own preset,
press **Preset** button.



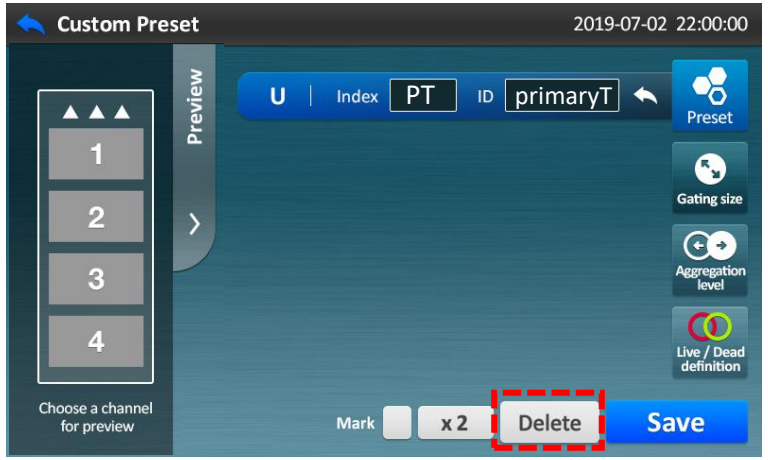
Press the preset button
which you created by yourself.



Adjust the parameters of your own preset.

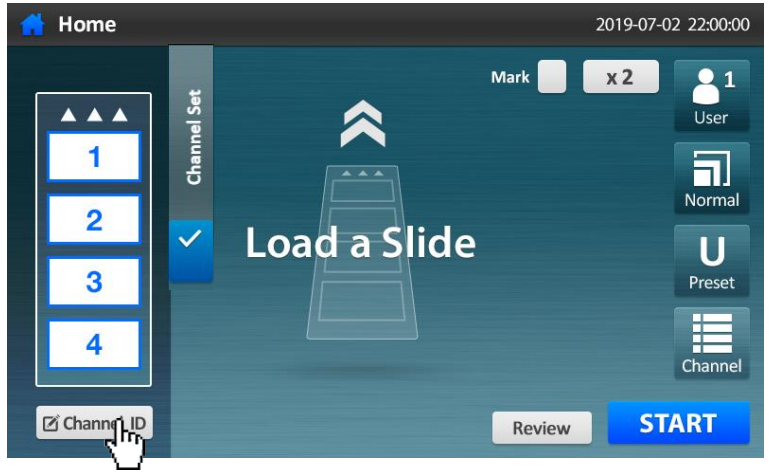


Press **Save** button
to keep the changed parameters.

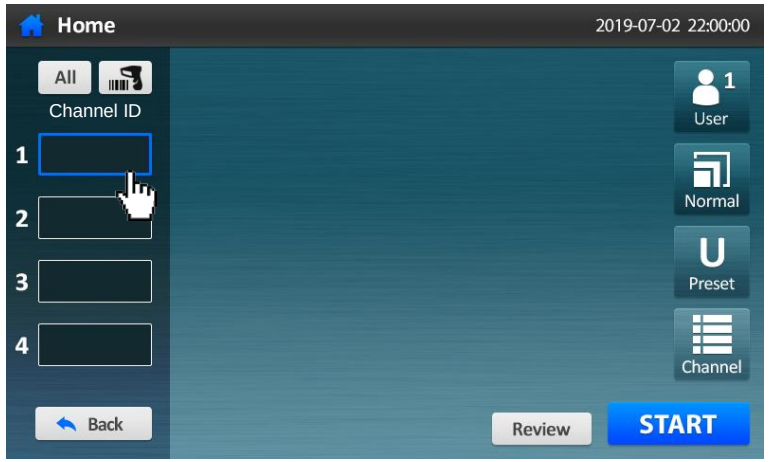


To delete your own preset,
press **Delete** button.

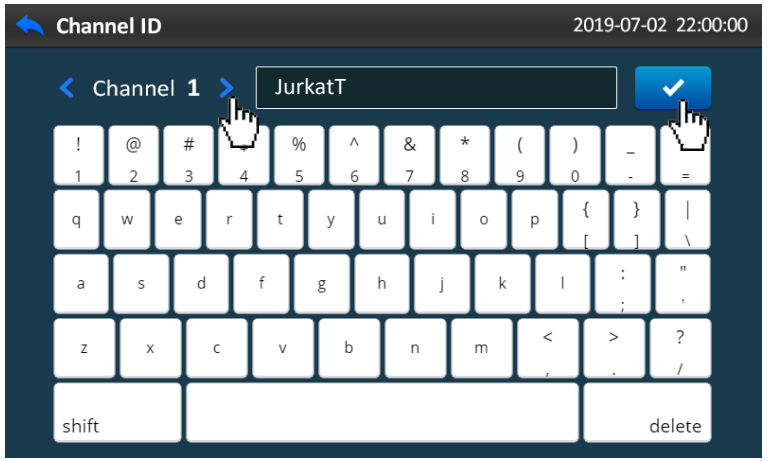
•Enter Channel ID _ Basically



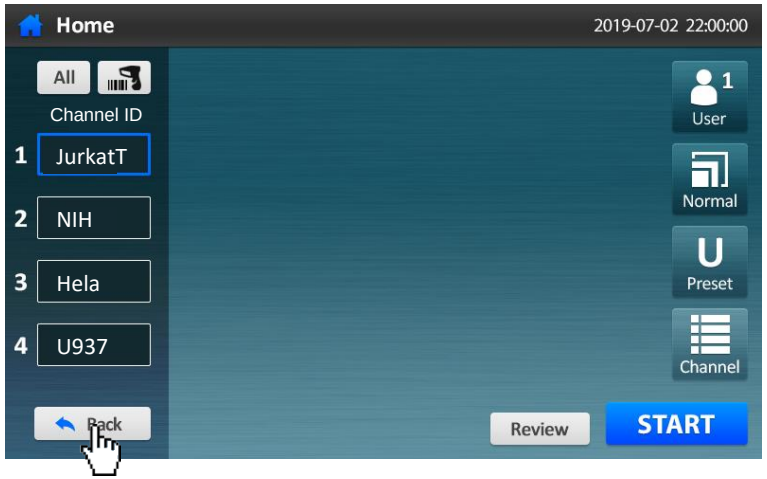
Press **Channel ID** button.



Press a blank.



Type the names of each **Channel ID**.

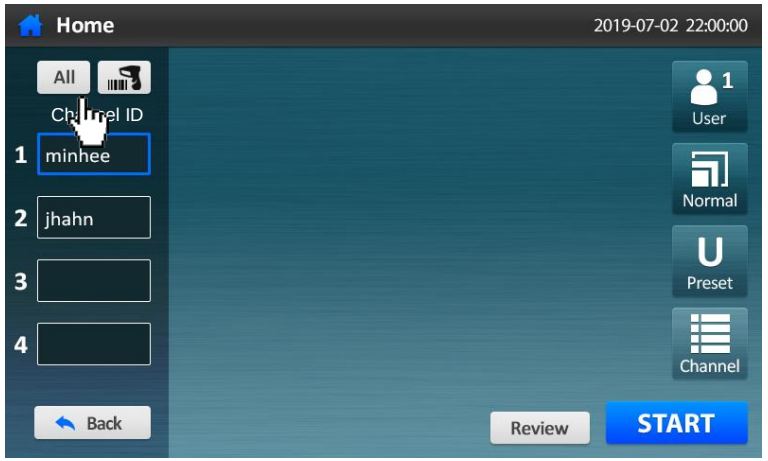


Press **Back** button.

Ready to counting.

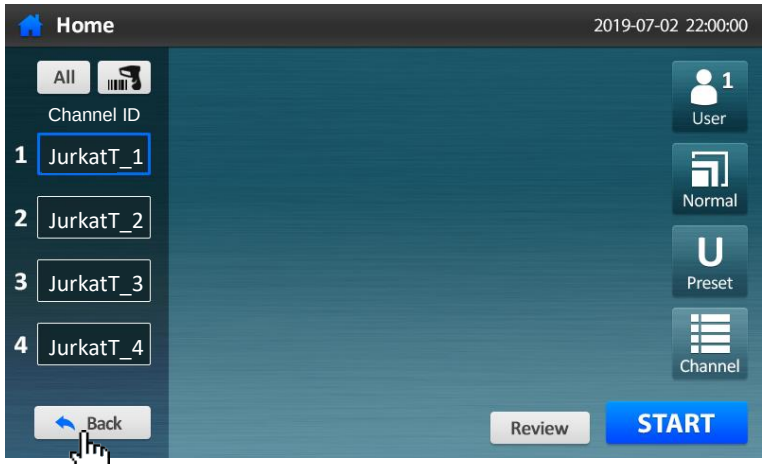
•Enter Channel ID _ Typing at once or Using extra devices

Typing 4 IDs at once



Press **All** button.

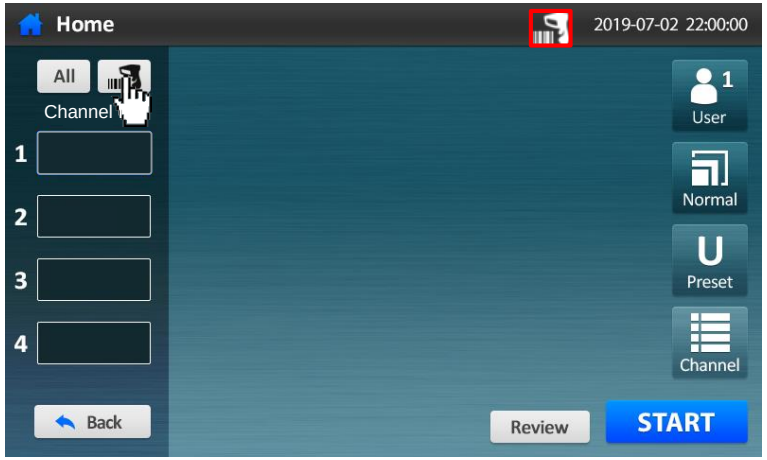
Enter the name of cell type and press **OK** button.



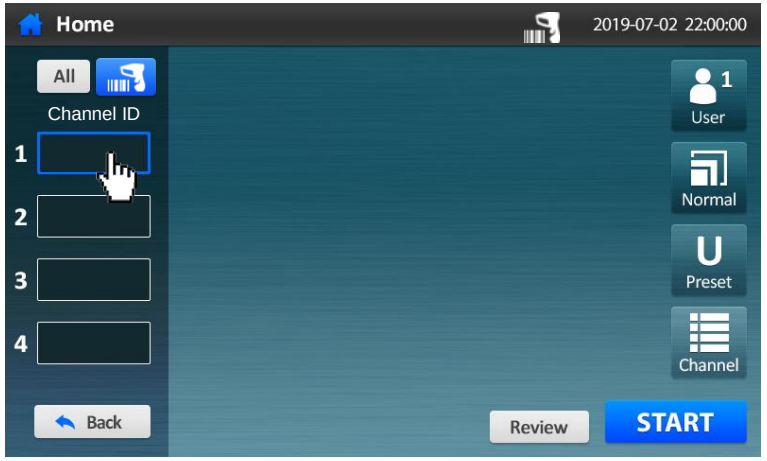
Check if 4 channel IDs are written, then press **Back** button.

Using barcode scanner, USB keypad or USB keyboard (optional)

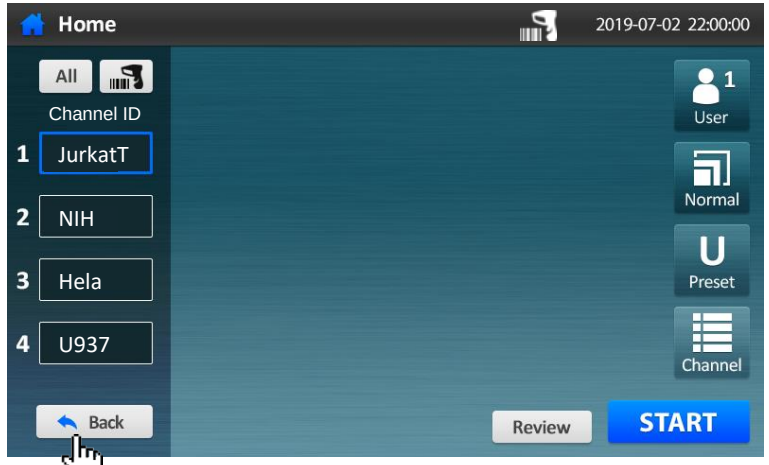
Connect an extra device to the USB port at the back side of the device. Check if an icon appears on status bar.



Press **Barcode scanner** button.



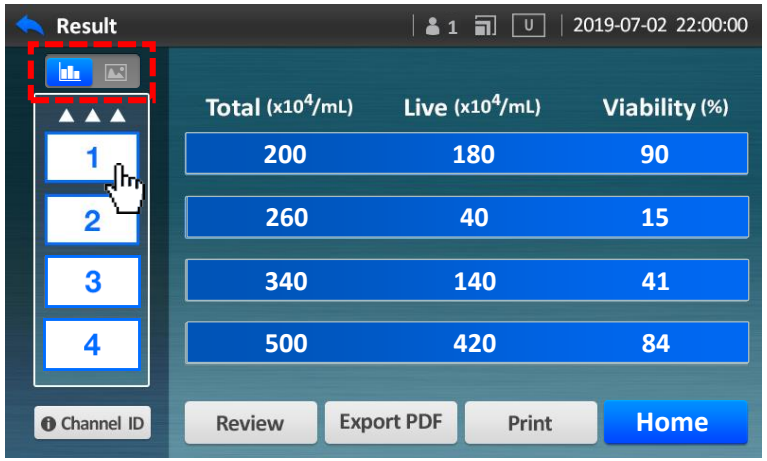
Press blanks and enter 4 channel IDs.



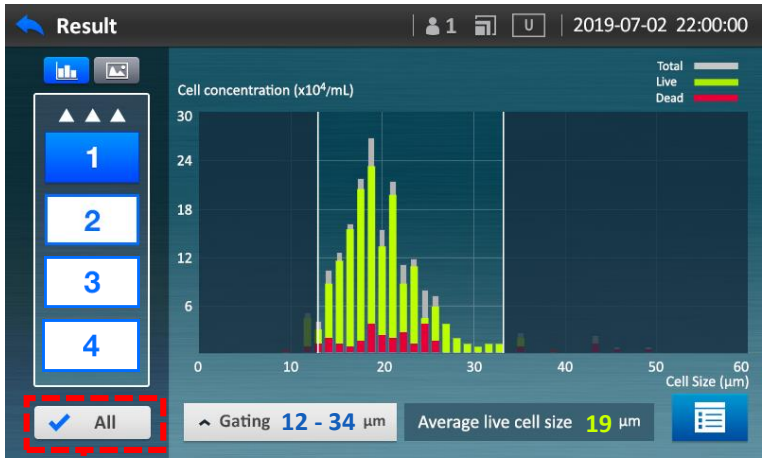
Check if 4 channel IDs are written, then press **Back** button.

•Result_Analysis(Histogram)

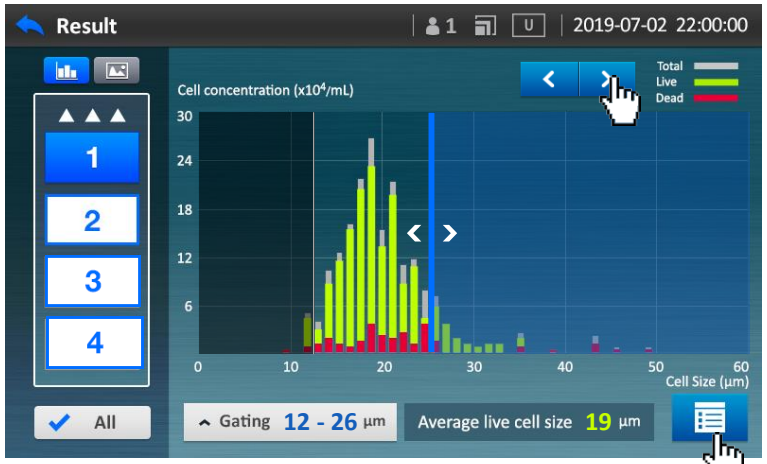
toggle between **histogram** and **result image** once select a channel.



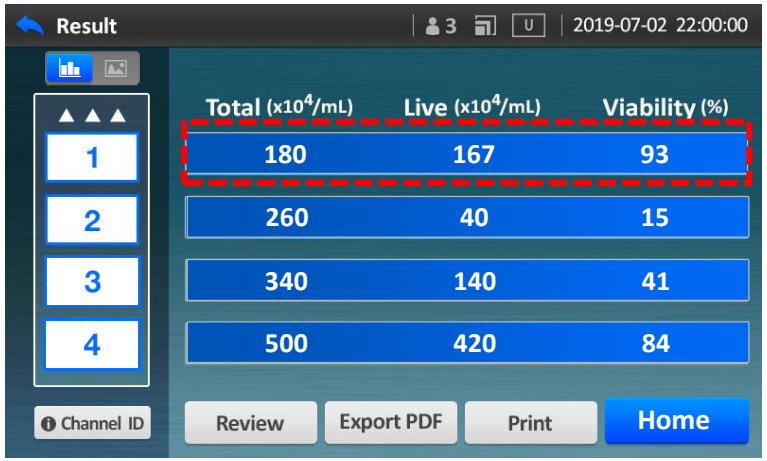
Press a **channel** which you want to check, and switch to the **histogram** icon.



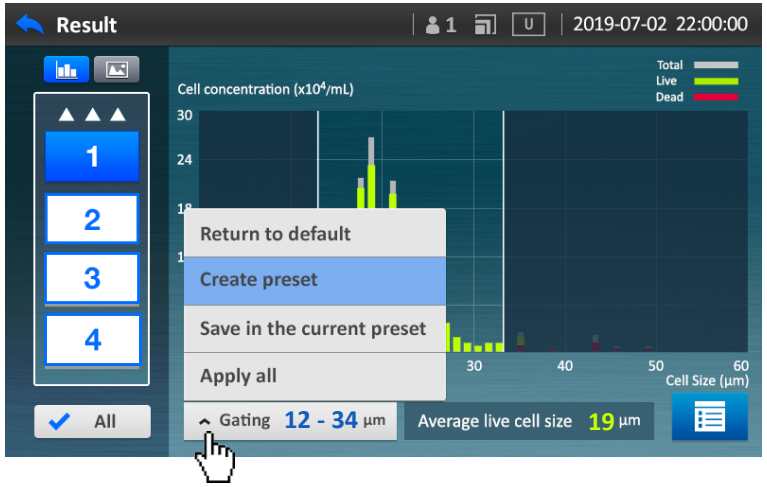
Press **All** to check the average data of all channels.



Move both columns and adjust the cell size.

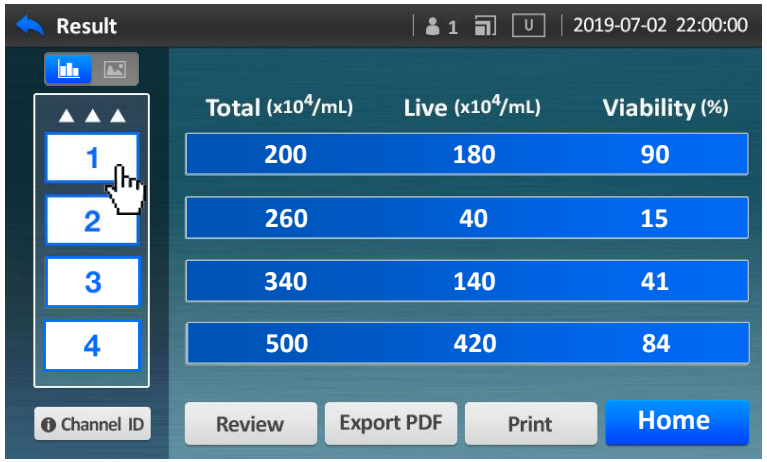


Check the results.

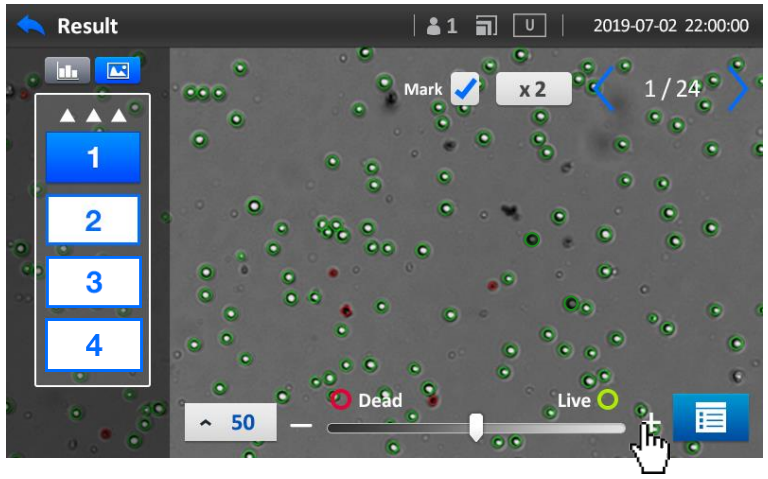


- Once press button, see the result images of selected channel at once.
- **Return to default** : The changed value returns to default.
- **Create preset** : The value is saved in the new preset.
- **Save in the current preset** : The changed value is saved in current preset.
- **Apply all** : The changed value is applied to all channels.

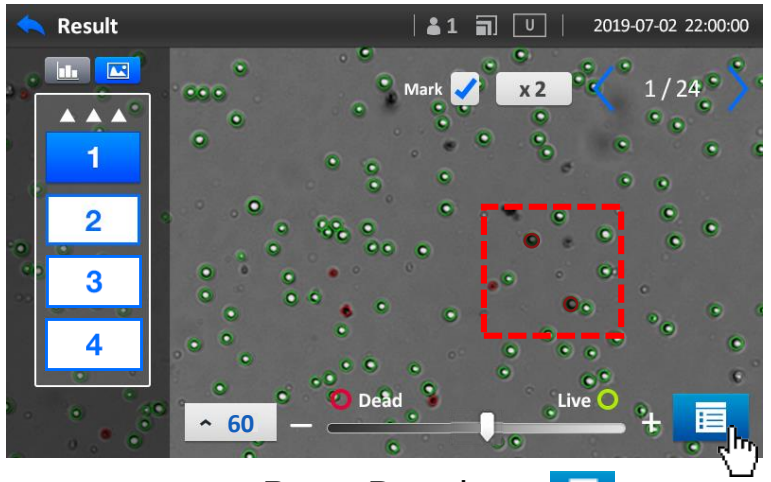
•Result_Analysis(Result Image)



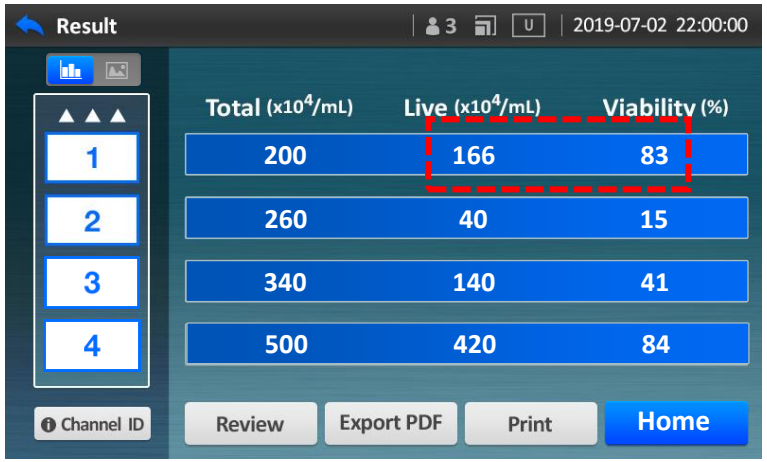
Press a **channel** which you want to check, and switch to the **Image** icon.



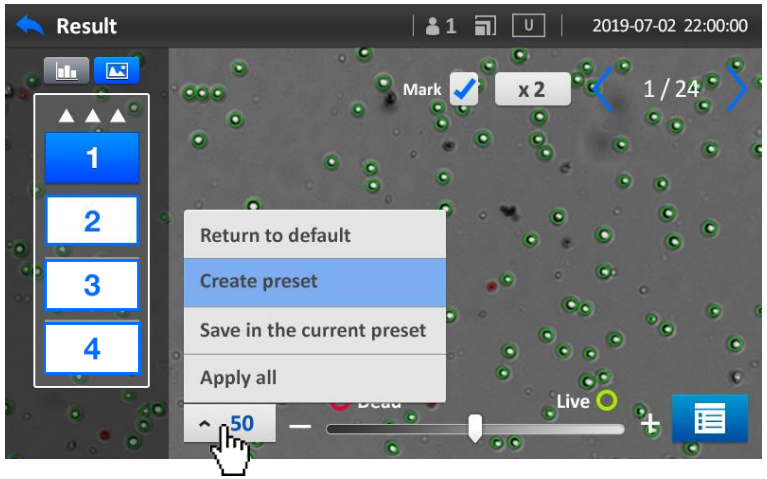
Adjust Live / Dead cell definition.



Press **Data** icon.



Check the number of Live cell and Viability.



- Once press button, see the result images of selected channel at once.
- **Return to default** : The changed value returns to default.
- **Create preset** : The value is saved in the new preset.
- **Save in the current preset** : The changed value is saved in current preset.
- **Apply all** : The changed value is applied to all channels.

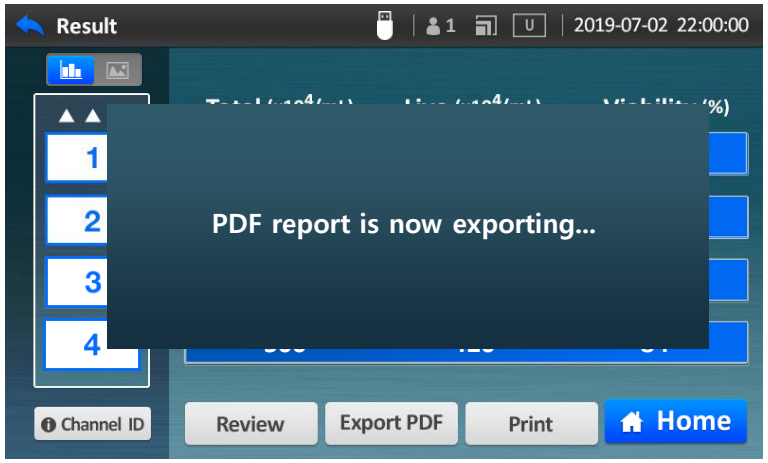
•Result_Data

If you want to export CSV file, go to the review and export CSV button

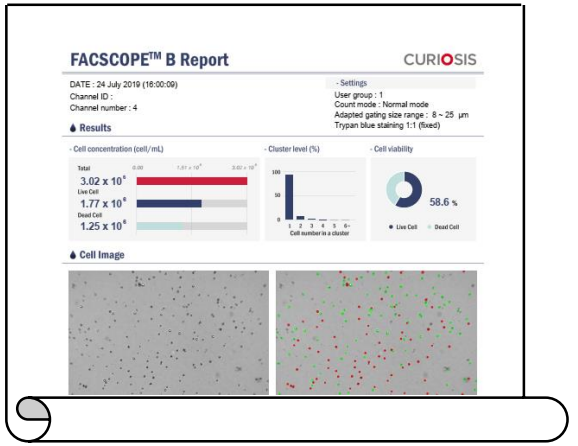
Export Report

Connect USB memory to the USB port at the back side of the device. Check if an icon appears on the status bar.

Press **Export PDF** button.

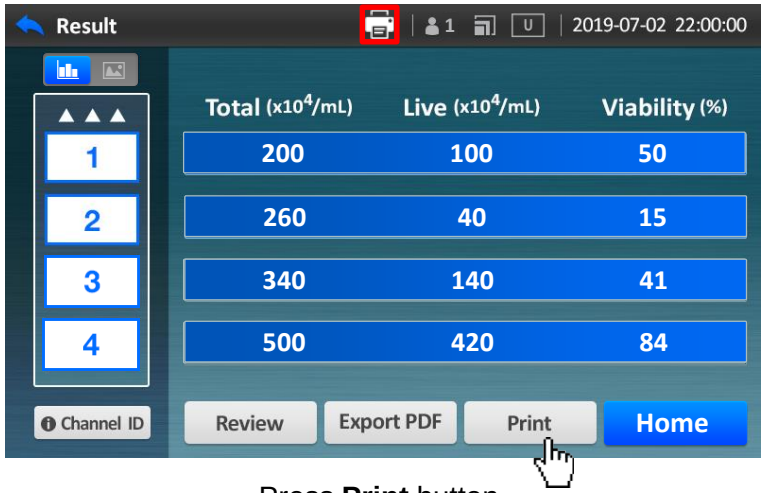


Once “Export success” message appears, remove the USB memory from USB port.

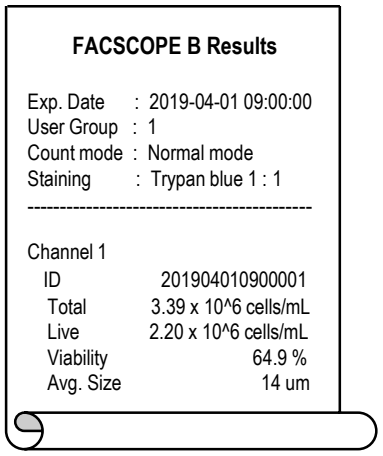


Print Result

Connect USB Thermal Printer (Optional) to the USB port at the back side of the device. Check if icon appears on status bar.



Press **Print** button.



FACSCOPE B Results

Exp. Date : 2019-04-01 09:00:00
User Group : 1
Count mode : Normal mode
Staining : Trypan blue 1 : 1

Channel 1
ID 201904010900001
Total 3.39 x 10^6 cells/mL
Live 2.20 x 10^6 cells/mL
Viability 64.9 %
Avg. Size 14 um

•Review and Export record(CSV file)

FACSCOPE B automatically saves data up to 1000 volume.

Select **User.**

Press **Review**.

Connect USB memory
(check if icon appears on status bar),
and press **Export CSV.**

Once “ Export success” message appears,
remove the USB memory from USB port.

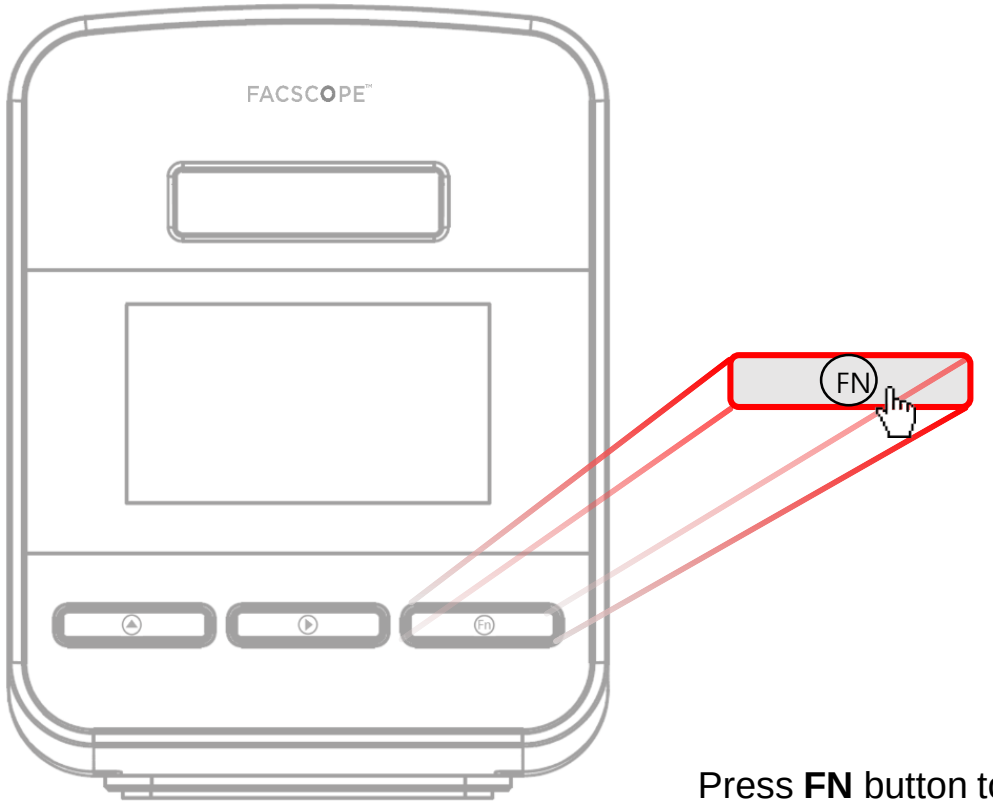
This means the number of current auto-saved
data of 1000.

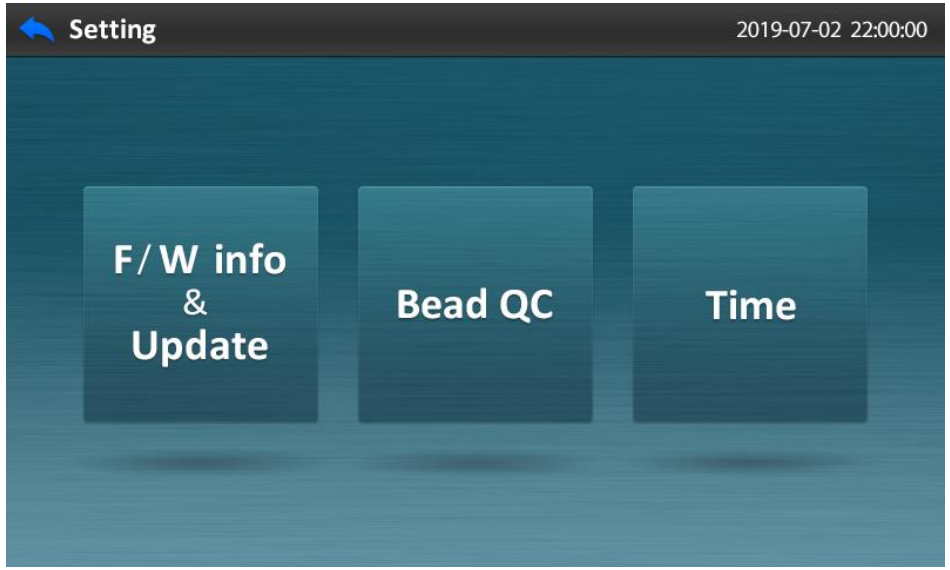
•Result_ Show ID

To see each of Channel IDs, press **Channel ID**.

To go back, press **Back**.

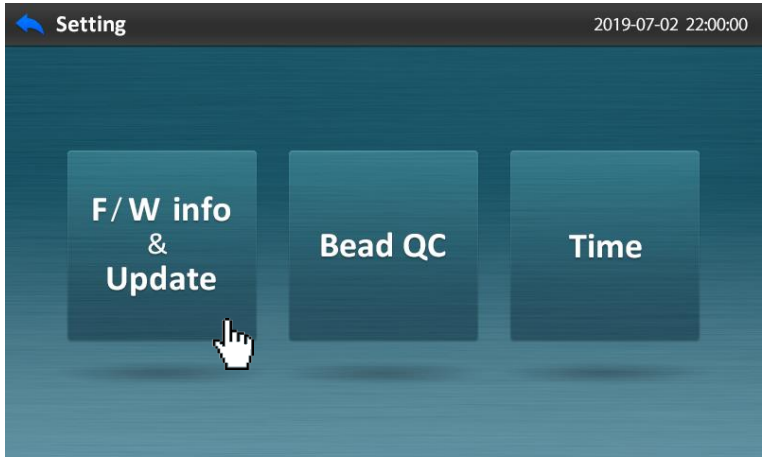
•Setting screen



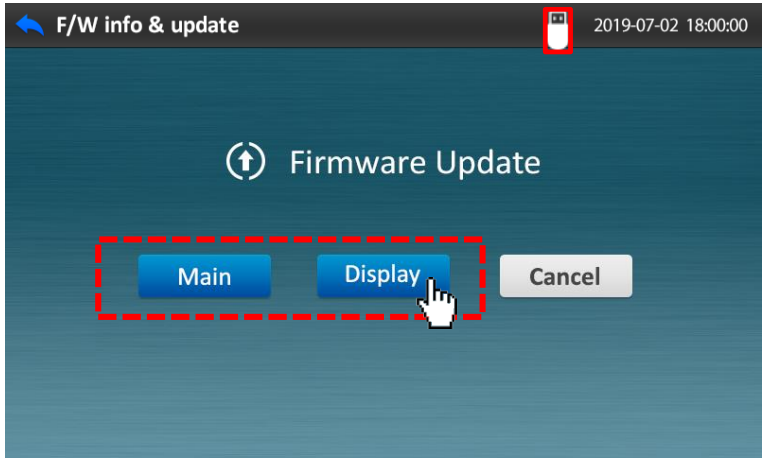


Press **FN** button to get into the Setting screen.

•F/W info & Update

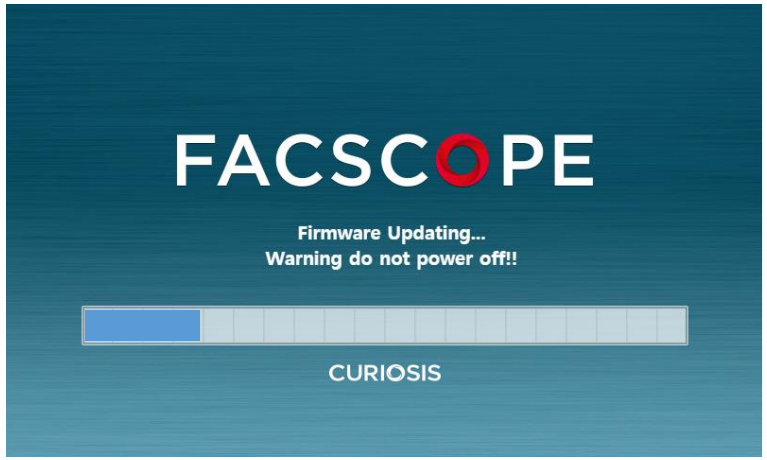


Press **F/W info & Update**,
and connect USB memory.

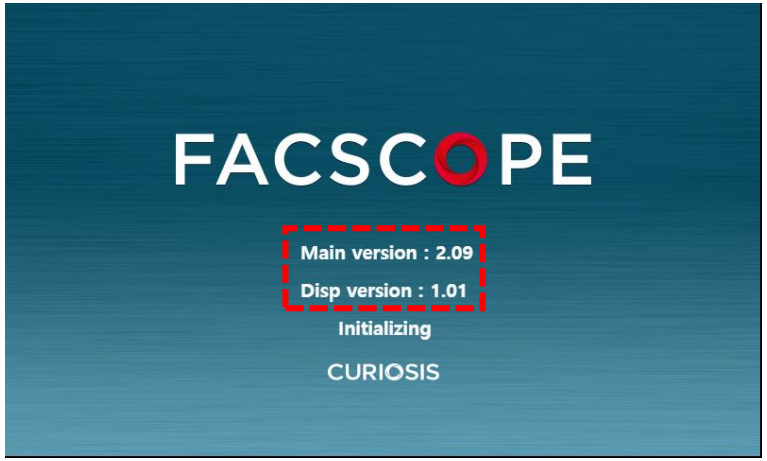


Choose the category to update(**Main** or **Display**).
If USB memory is disconnected or it doesn't have updated program, the message will notice it.

Press **Update** button.



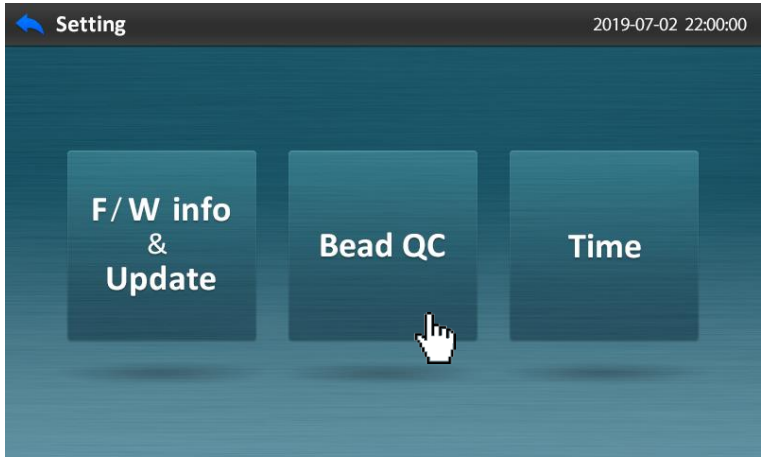
Updating



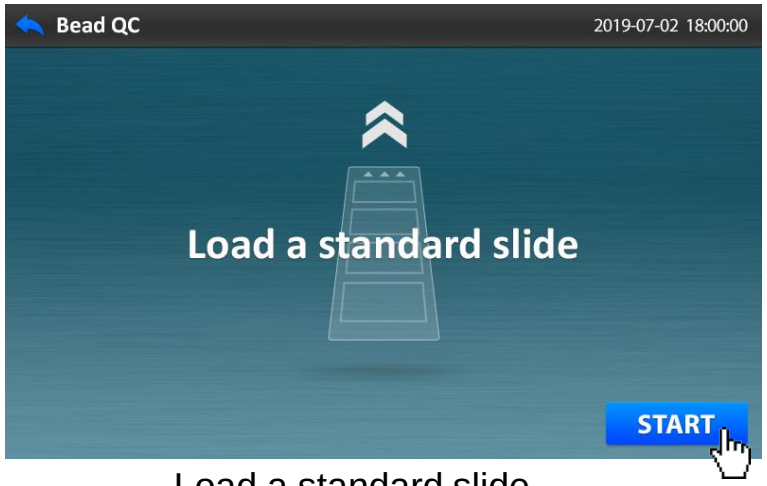
The device will start again automatically with updated version.
Check if the version is changed.

After about 1 minute, switch off and on for stable operation.

•Bead QC



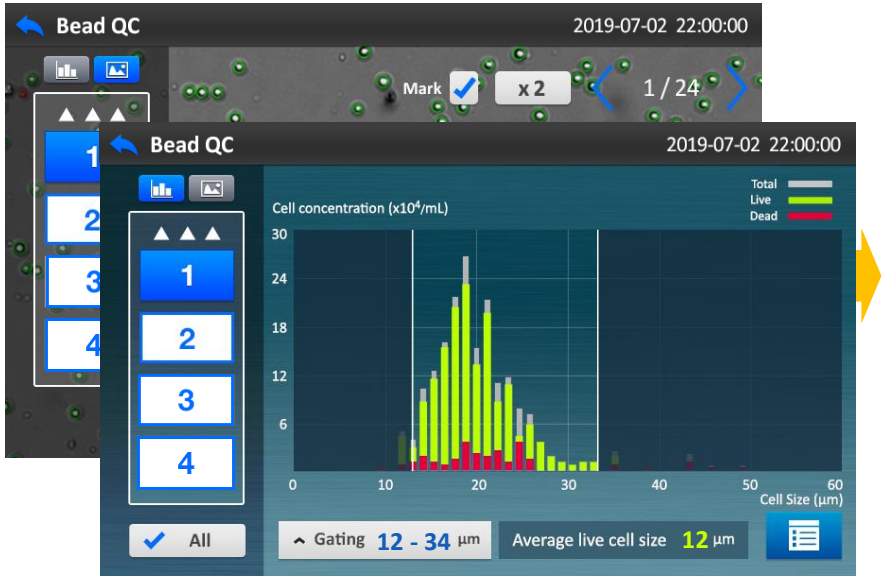
Press **Bead QC** button.



Load a standard slide
and press **START** button.

Counting

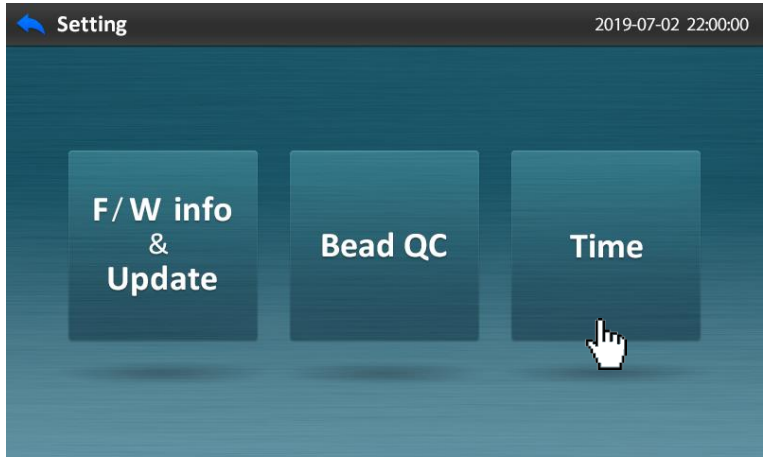
Check the result amount.



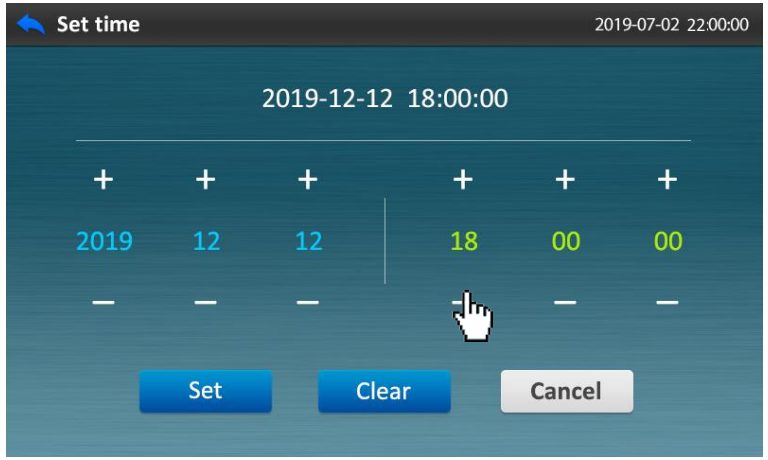
Check the Histogram and Bead image.

Return to Home screen.

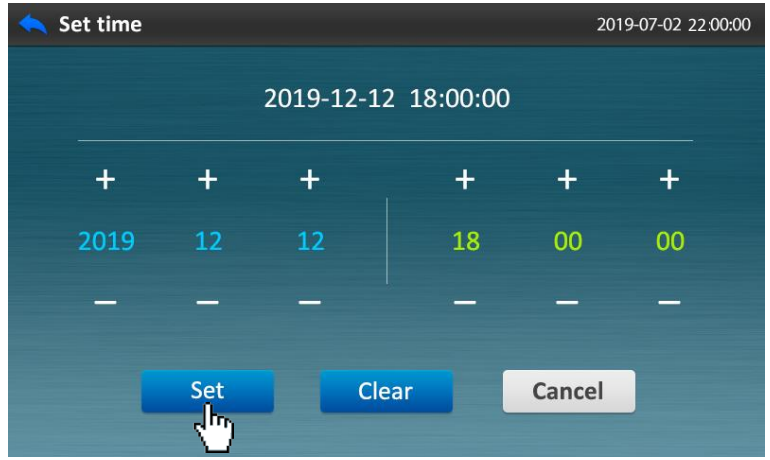
•Time



Press **Time** button.



Adjust date and time.



Press **Set** button.

Return to Home screen.

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Revision History:

V.0.0 Date: 2019/03/05

V.1.0 Date: 2019/03/20

V.2.0 Date: 2019/05/24

V.3.0 Date: 2019/10/18

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