ADAM

A New Standard of Automatic Cell Counter

INSTRUCTION MANUAL

NESMU-AMC-001E (V.3.0)

Digital Bio

Developed and Manufactured by NanoEnTek Inc.

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ADAM-MC, User's Manual

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The information in this manual is described as correctly as possible and is applicable to the latest firmware and software versions, but it may be changed without prior consent or notification.

Documentation : NESMU-AMC-002E (V.1.5)

Revision History :

V.0.0	Date: October 2008
V.1.0	Date: February 2009
V.1.5	Date: June 2009
V.2.0	Date: September 2009
V.3.0	Date: January 2010

Safety Precautions

1. Always ensure that the power supply input voltage match the voltage available in your location.
2. For operation environment, See "Appendix C Technical Specification".
3. This machine is air-cooled so its surfaces become hot during operation. When installing it, leave a spaces of more than 10 cm (4 inches) around it.
4. Never insert metallic objects into the air vents of the instrument as this could result in electrical shock, personal injury and equipment damage.
5. Always set the main switch on the power supply unit to "◯" (OFF) before connecting the power cord to the wall outlet.
6. Always ensure that the grounding terminal of the instrument and that of the wall outlet are properly connected. The power cord should be connected to a grounded, 3-conductor power outlet.
7. To avoid potential shock hazard, make sure that the power cord is properly grounded.
8. Do not position the equipment so that it is difficult to operate the disconnecting device.
9. Be sure to set the main switch to "◯" (OFF), unplug the power cord and lock the stage before moving.
10. If the instrument is broken or dropped, disconnect the cord and contact a authorized service person. Do not disassemble the instrument.
11. Use only authorized accessories.
12. Use this equipment only as specified in this manual and as specified in any documentation associated with its components. Any use of the equipment in an unspecified manner is strongly discouraged and may result in damage or injury as cautioned by signed warnings.

Safety Symbols

The following symbols are found on the instrument and this document. Study the meaning of the symbols and always use the equipment in the safest possible manner.

Symbol	Meaning
	Caution & Warning
	ON (Power)
	OFF (Power)
	Protective earth (Ground)
	This instrument and consumables conforms to the Declaration of Conformity.
	Caution, Biohazard Protective measures must be used in dealing with biologically hazardous materials such as carcinogenic reagents.

Warnings

Item	Warning	Date
Battery inside device	Risk of explosion if battery is replaced by an incorrect type. This battery is not replaceable by a user. Refer to a qualified personnel.	Aug 01, 2008
Cover	Do not remove a cover or dissemble a case. There is no adjustable components inside the instrument. If malfunction is found, refer to a service personnel.	Aug 01, 2008
Manual	Do not attempt to service the equipment unless this manual has been consulted and is understood. This manual is available in English only. Failure to heed this warning may result in injury to service provider, operator from electric shock, mechanical or other hazards.	Aug 01, 2008
Sample handling	Wear gloves during sampling. User's sample may have the infectious biohazardous substance.	Aug 01, 2008
Waste	After using Accuchips, appropriately dispose it as biohazardous waste. Do not reuse the Accuchips.	Aug 01, 2008
Operator	Must have the general knowledge of cell counting procedure and bio safety to handle the sample that may have the infectious biohazardous substance	Aug 01, 2008

Table of Contents

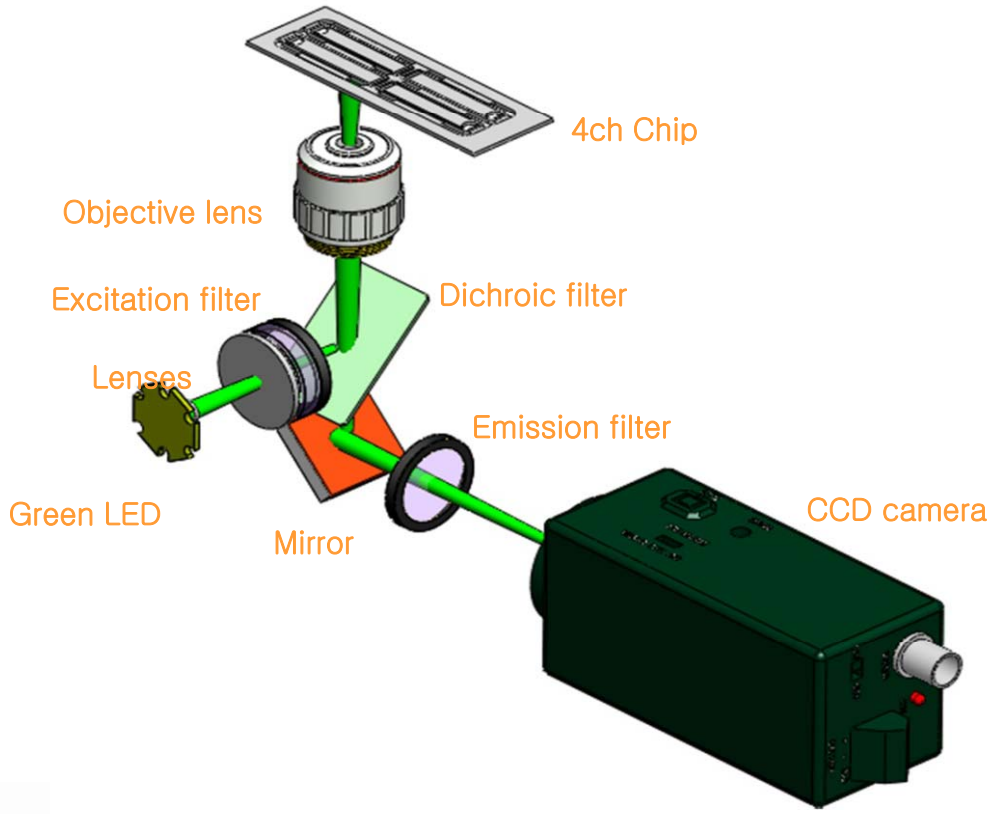
Section 1. Introduction

1-1. Technology - Mechanical

Until now, cell counting and viability measurement for many types of cells have been performed manually using hemocytometer with Trypan Blue exclusion method which is to distinguish viable cells from non-viable cells. One drawback of this method, however, is the propensity for the staining of artifacts; another drawback is that the naked eye can only differentiate between cells in a limited concentration range in the hemocytometer chamber. This combined with the potential problem of cell aggregation and limited sample volume leads to the common variation of counts normally associated with this method.

To address these problems, Digital Bio has developed the ADAM, which is based on a fluorescent microscopy technique for counting cells. The ADAM utilizes sensitive fluorescence dye staining, LED optics and CCD detection technologies to make the cell analysis more accurate and reliable.

To count cells using ADAM, the cells are mixed with a Propidium Iodide (PI) stain and directly pipetted on to a disposable plastic chip. The chip is then loaded onto a precision stage. An ADAM system is automatically focused onto the chip and cells that have been stained are recorded by a sensitive CCD camera. The image results are automatically processed generating the cell count which is displayed on the front of the instrument. Simple. Fast. Accurate. Reliable.

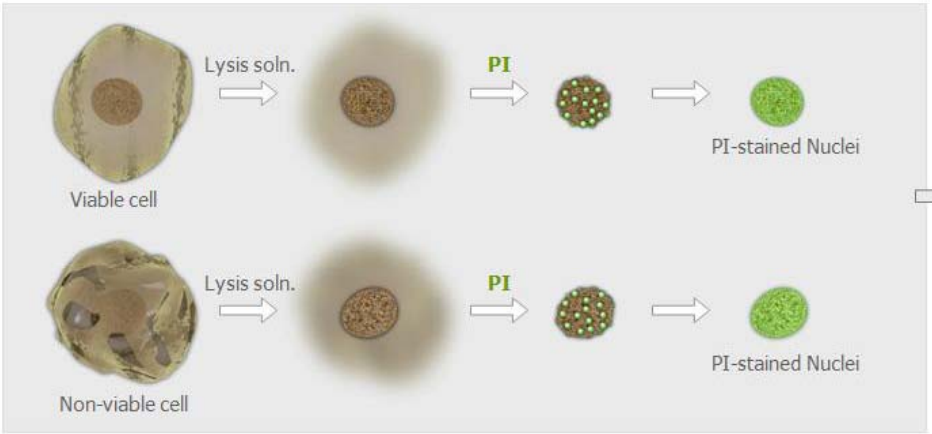


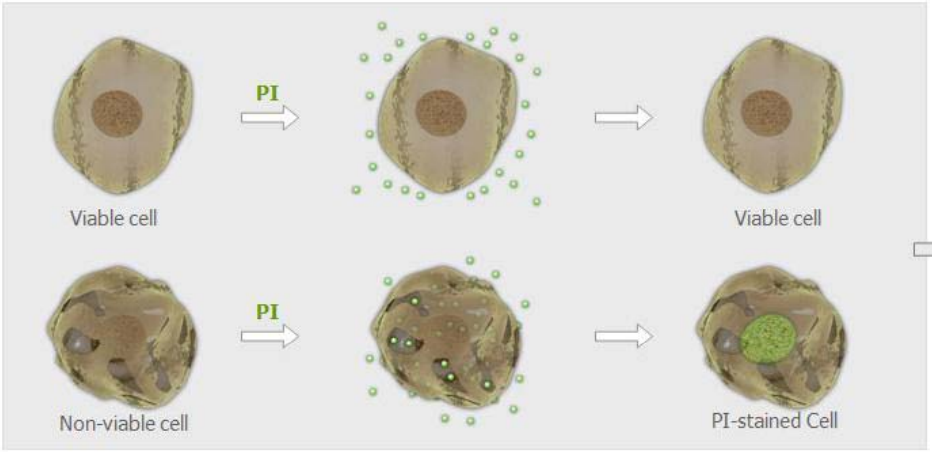
Section 1. Introduction

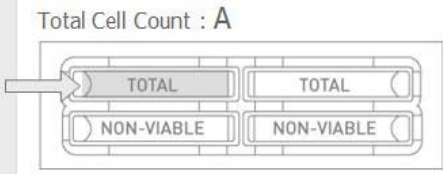
1-2. Technology - Viability Measurement

Adam is based on staining mammalian cell DNA with a fluorescent dye, Propidium Iodide (PI). PI does not enter cells with intact cell membranes or active metabolism. In contrast, cells with damaged membranes or with inactive metabolism are unable to prevent PI entering the cell. As a result, the nuclei of non-viable cells will only be stained. The Adam provides two kinds of staining solutions. AccuStain Solution T for the total cell counting is composed of the fluorescent dye (PI) and lysis solution. AccuStain Solution N for the non-viable cell counting is composed of the fluorescent dye and PBS.

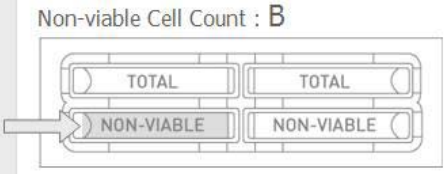
In order to measure the total concentration of cells, the plasma membranes of all the cells must be disrupted to stain all the Nuclei with PI. The process of disrupting and staining is achieved by treatment with AccuStain Solution T. In the second solution, live cells remain intact and are not stained. Only the non-viable cells are stained and detected. After treatment, the prepared cells will be loaded into the chip. The viability will be automatically calculated in the Adam-MC software after each measurement of the total cells and the non-viable cells.







$$\text{Viability}(\%) = \frac{(A-B)}{A} \times 100$$



Section 2. Product Description

2-1. Packing List

The ADAM is shipped with the following components. Once you receive your instrument, please check that all items listed below were shipped. If any items are missing or damaged, contact your local distributor or sales@digital-bio.com.

Item	Quantity
Main device	1
AccuChip Kit (Starter Kit)	1
Instruction Manual	1
External video monitor (Optional)	1
Installation CD	1
Key Pad	1
Power Cord	1
USB cable	1
Fuse	2

After receiving ADAM, examine it carefully for any damage incurred during transit. Any damage claims must be filed with the carrier.

⚠ CAUTION:
Neglecting to remove any or all shipping brackets or foams prior to operation may result in damage to the equipment
The shipping brackets or foam inserts must be reinstalled prior to shipping the unit to prevent damage to the equipment.

Section 2. Product Description

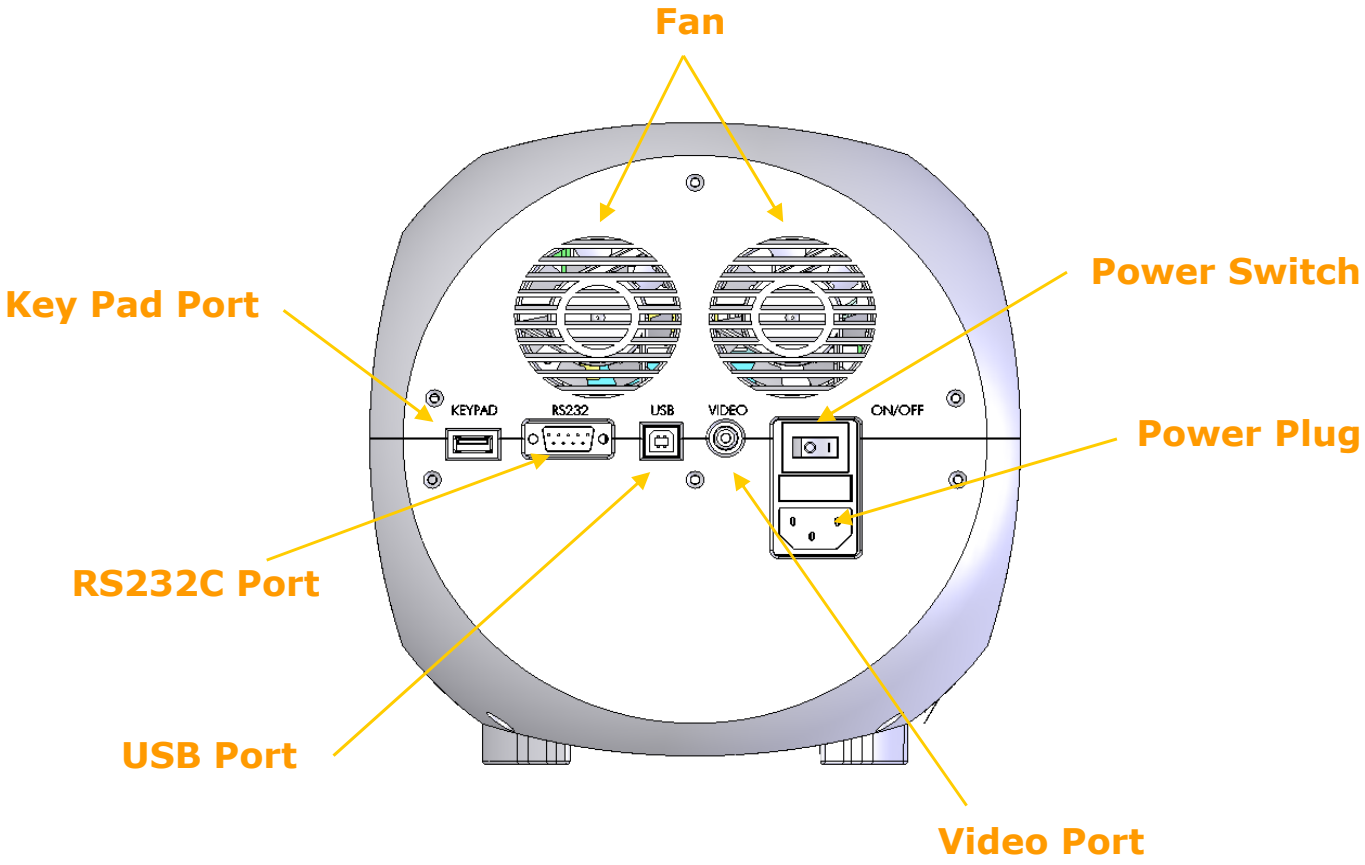
2-2. Identification of System Components

Fig. 1. View of the ADAM

1. Control buttons:
▲ Eject: Ejects the chip holder from the Adam.
▶ Run/Start: Performs all procedures of automatic counting
🔒 Parking: Protects the alignment of stage from external shock when the ADAM is moved to the other places.
☞ ***It is strongly recommended to park ADAM before turning it off.***
2. Door: Chip holder comes out here.
3. LCD: Displays the process and the result.
4. Keypad: Inputs the sample number and "Enter" button . Less than 3 characters.
5. External video monitor: To see the actual cell shape and check if any clumped cell through this monitor.

2-3. Identification of System Components - continued

Fig. 2. Rear view of the ADAM



1. Fan: Adam's cooling fan
2. Power switch: Main power on/off control.
3. Power plug: Connect the ADAM power cord to wall outlet
4. Video Port: External video monitor port
5. USB port: Connect the USB serial cable to computer
6. RS-232C serial port: Not Connected(Port for only QC and Service)
7. Key pad port: Connect the Keypad

Section 3. System Installation

3-1. Environmental Requirements

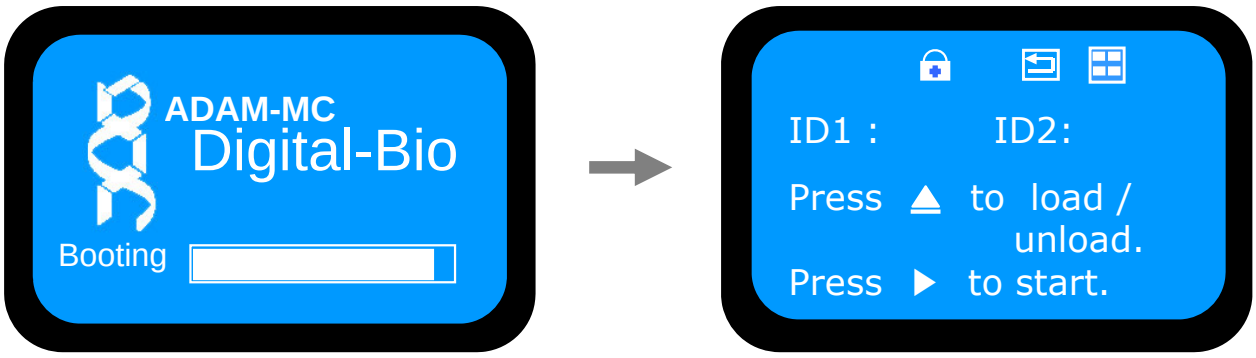
To insure correct operation and stable performance over an extended period of time, install the ADAM in a location which meets the following conditions:

- Room temperature between 20 and 35 °C. Not recommended for cold room use (4 °C). **CAUTION: At low temperature (≤10℃), please warming up the system for 10 min.**
- Not exposed to direct sun light.
- Not subject to direct or continuous vibration.
- Not subject to intense magnetic or electromagnetic fields.
- Relative humidity between 0–95%.
- Area free from corrosive gases or other corrosive substances.
- Area with very little dust or other airborne particles.
- Allow a 10 cm minimum space around the instrument for proper air flow.
- Not allow to put heavy material on top of ADAM

3-2. Power on and Initial Display

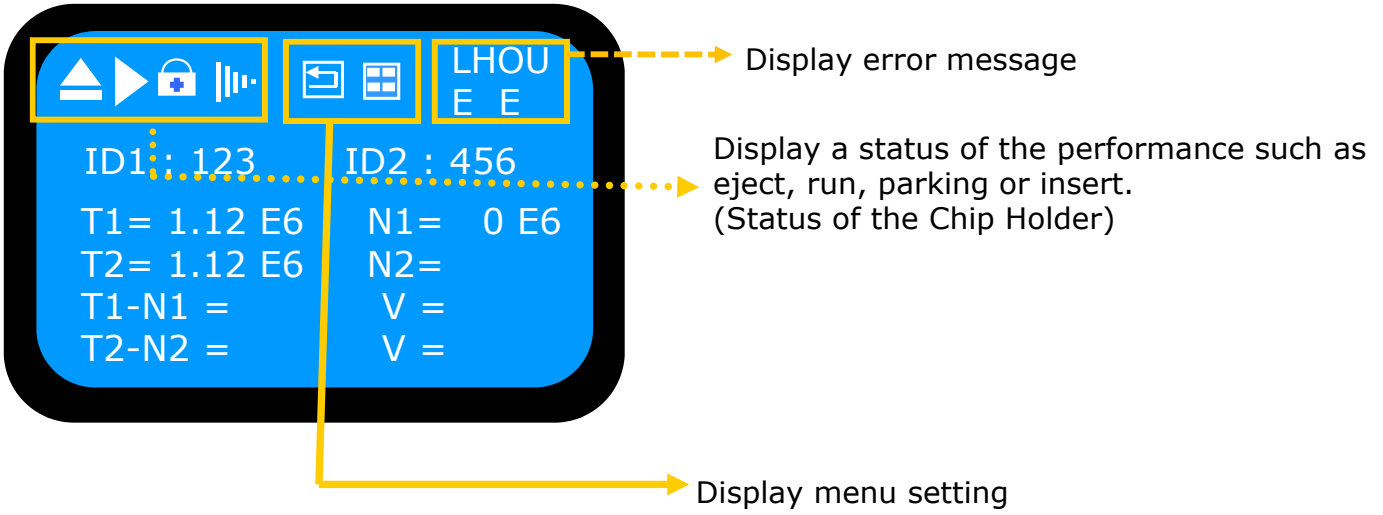
1) Check the connection of the main device power cord.
2) Make sure that the main power switch is in the " I " (ON) position. (On the rear side of the main device.)

▪ When you turn on the ADAM, it will go through self diagnostic tests including, all optical components. If a problem is detected, please contact your local distributor or sales@digital-bio.com. If boot up is successful and no errors are detected, the home screens will be displayed as below.



Section 3. System Installation

3-3. Icon Functions



Icon	Features
	Shows when cell counting is running (After you press the run button).
	Shows the Chip Holder is ejected (After you press the eject button).
	Shows the Chip Holder is parked (After you press the park button).
	Shows the Chip Holder is inserted.
	Shows that performance setting is high precision. ADAM scans 22 fields in each cham ber, representing a total volume of 3.1 μl.
	Shows that ADAM reads 4 Channel chip.

Section 4. General Operation

4-1. Preparing cell

1) Cultivate the required number of cells.
2) Aspirate the media and rinse the flasks using PBS or DBPS.
3) Aspirate the PBS and add Trypsin-EDTA.
4) Neutralize the trypsin by adding medium containing serum.
5) Add an appropriate volume of growth media or PBS to dilute to a final concentration of 5×10^4 cells/ml to 4×10^6 cells/ml.
   ☞ *Concentration out of this range will result in errors. Refer to page 21 or more information on errors.*
4) Thoroughly mix the cell pellet by vortexing.
5) Check visually if any cell clumps or agglomerates are remained.

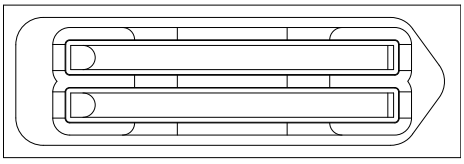
4-2. Counting Total Cell

1) The cell sample (50 µl) should be mixed with an equal volume of AccuStain Solution T (50 µl) for total cell counting (1 to 1 dilution).
2) Mix the sample thoroughly by vortexing.
3) This subsequent cell lysate (20 µl for AccuChip 2^X/ 12 µl for AccuChip 4^X) is loaded into the T1 or T2 channel.
   When you load 12 µl of the cell lysate into the T channel, please be careful not to make bubbles.

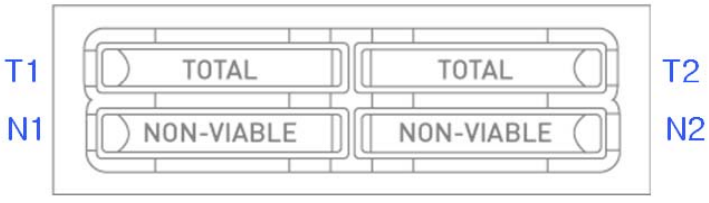
4-3. Counting Non-viable Cell

1) The cell sample (50 µl) should be mixed with an equal volume of AccuStain Solution N (50 µl) for Non-viable cell counting (1 to 1 dilution).
2) Mix the sample thoroughly by vortexing.
3) This subsequent cell lysate (20 µl for AccuChip 2X/ 12 µl for AccuChip 4X) is loaded into the N1 or N2 channel. When you load 12 µl of the cell lysate into the N channel, please be careful not to make bubbles.

* T channel is the upper part of chip and N channel is the lower part of the chip as below:



AccuChip^{2X}

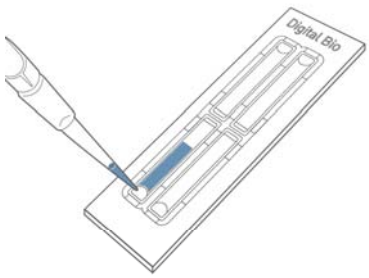


AccuChip^{4X}

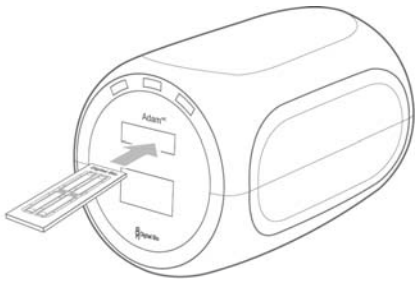
Section 4. General Operation

4-4.Operating the ADAM

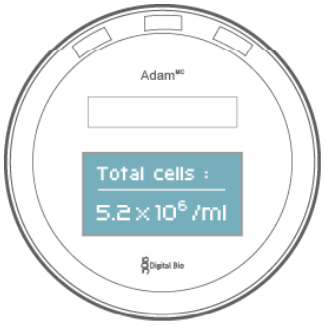
1) Press " EJECT" button on the main device to eject the chip holder.
2) Insert the Chip loaded with the sample onto the chip holder. Please be careful not to make bubbles.
3) Press the "▶, Run" button on the main device.
4) Automatic Focus will be carried out at the first time the device is booted. Once ADAM have done the Auto Focus process and on the following time, focusing process will be skipped.
5) After calculating the cell number, the chip will be ejected automatically. Then chip can be removed.
6) The calculated cell number per 1ml will be displayed automatically.
7) For another experiment, repeat the process from steps 1 ~ 5.
8) Operator should remember the above procedure to perform the automatic cell counting with ADAM



1. Mix sample with dye solution & loading the sample
(2 Channel Chip : 20 µl , 4 Channel Chip : 12 µl)



2. Inserting of the chip



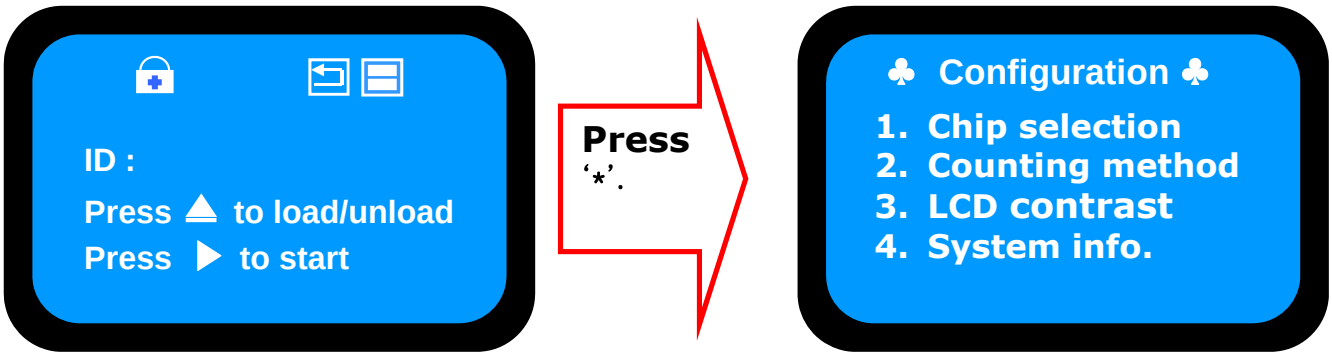
3. Quick result

Simple & Easy 3 steps

Section 4. General Operation

4.5 Menu setting

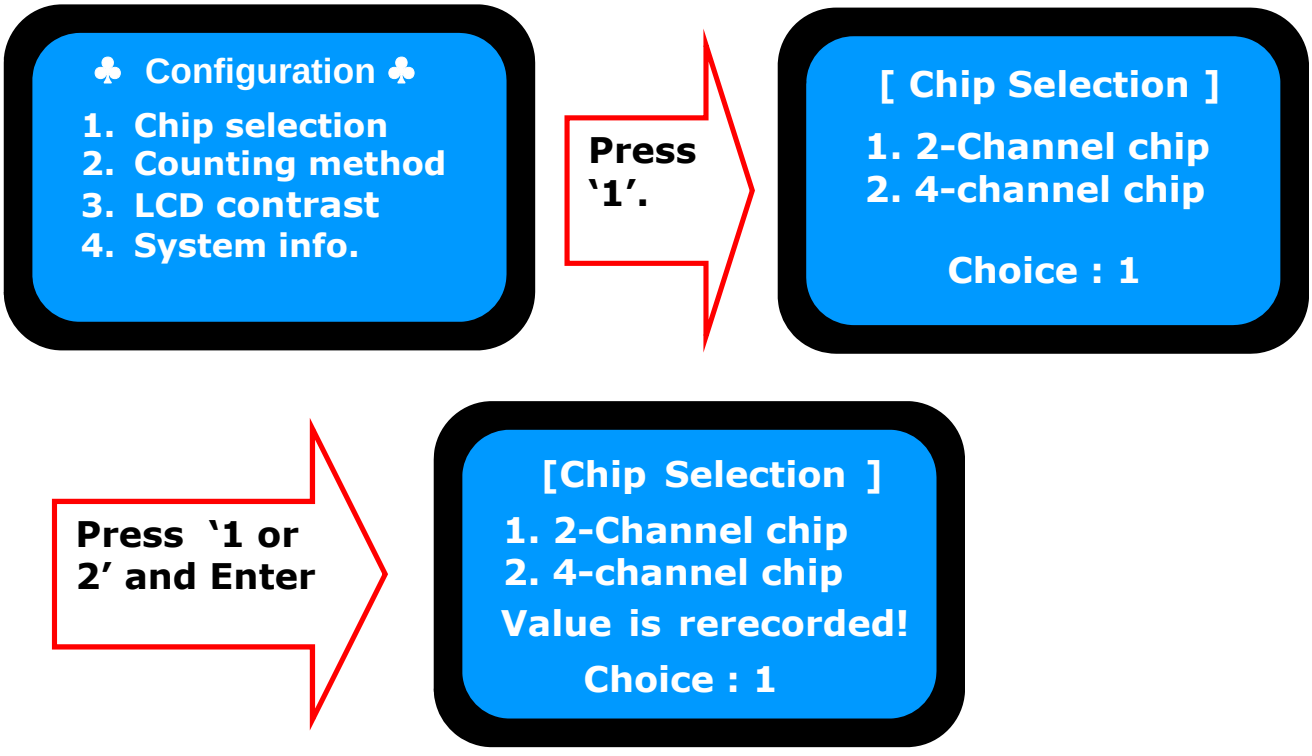
You can set the menu as you press the '*' button on the keypad from the screen for inputting cow numbers.



You can find the setting modes by selecting the number from the Menu.

4.5.1 Chip Selection

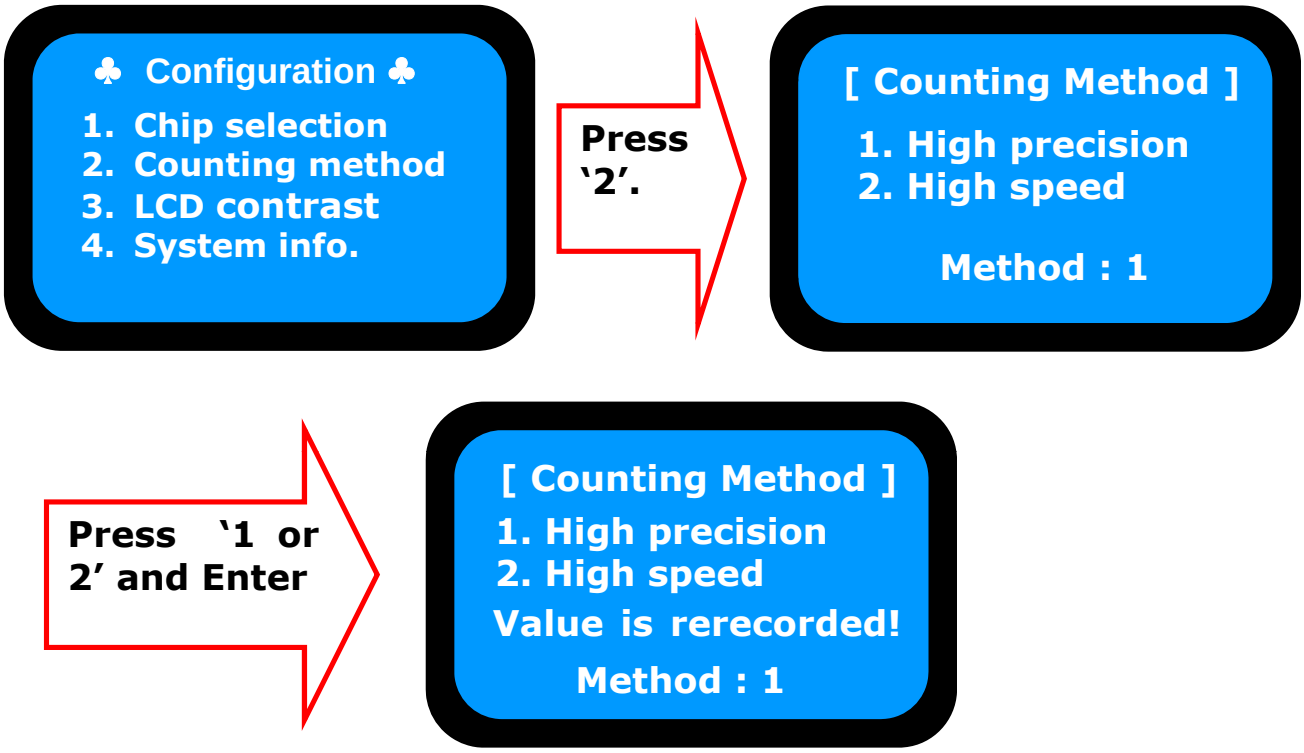
User can select the 2 kinds of chip type. One is the two channel chip (AccuChip^{2X}). Another is the four channel chip (AccuChip^{4X}).



After pressing the 'Enter' key, the screen will return to the Menu screen automatically.

4.5.2 Counting method

You can change the capture frame mode.



2CH High Precision : 60 frames Capture
High Speed : 30 frames Capture

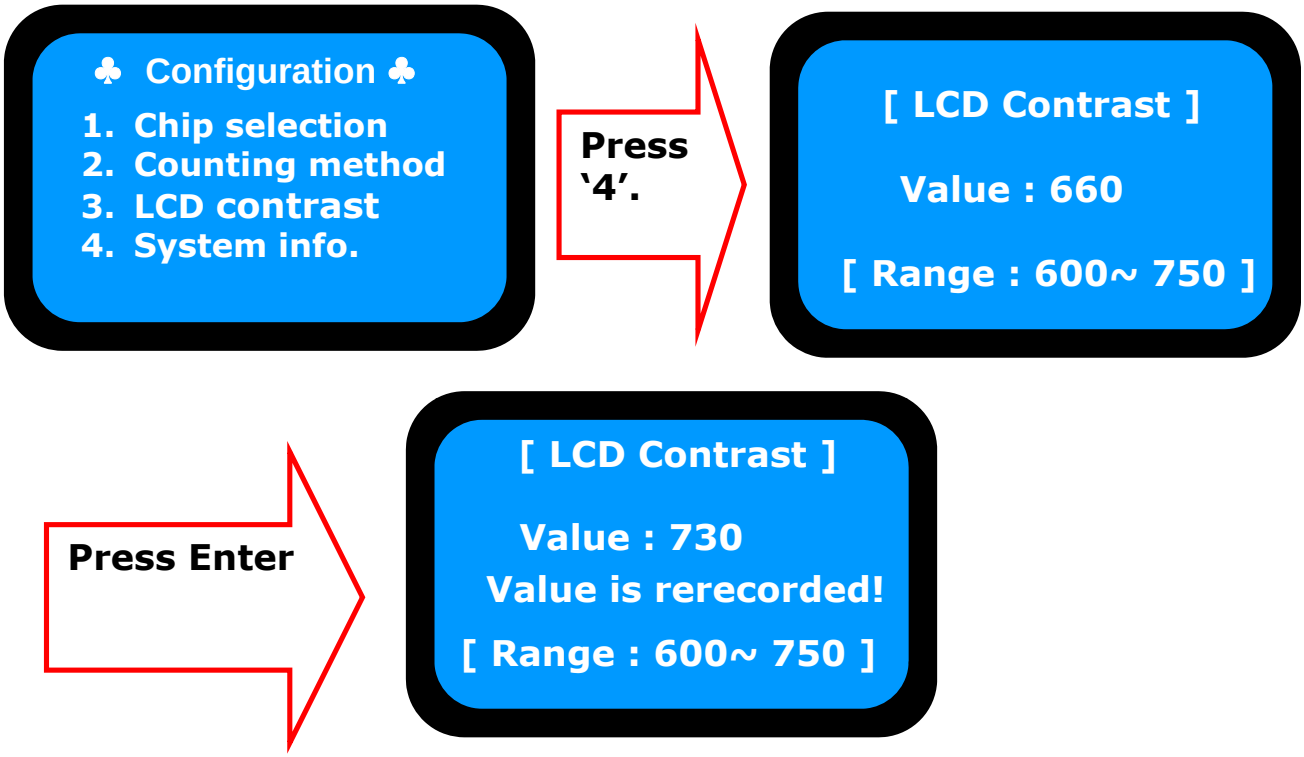
4CH High Precision : 22 frames Capture
High Speed : 11 frames Capture

You can select the 60 or 30 frames in 2CH mode and 22 or 11 frames in 4CH mode for counting as well.

After pressing the 'Enter' key, the screen will return to the Menu screen automatically.

4.5.3 LCD contrast

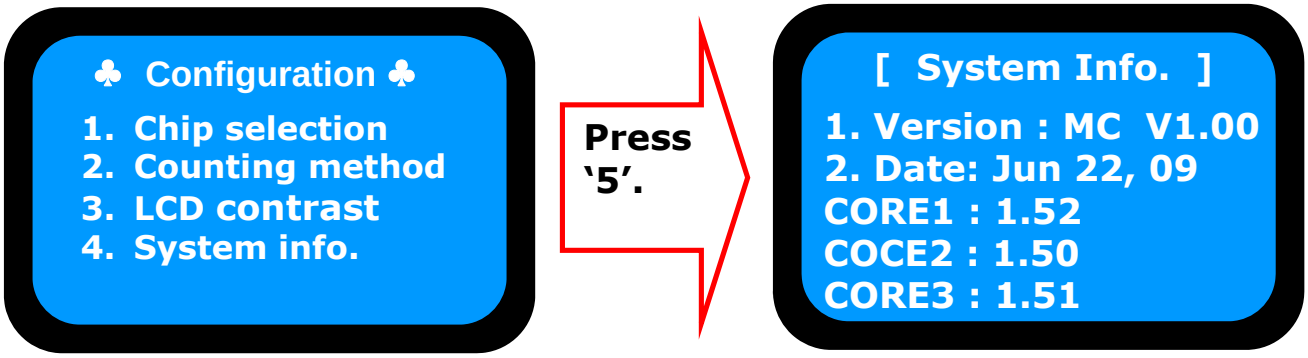
Press the number 4 key to adjust the brightness of the LCD screen from the MENU.



Adjust LCD contrast if the letters do not appear clearly on the screen. Press the 'Enter' key after you input the three digits. The range is from 600 to 750. After pressing the 'Enter' key, the screen will return to the Menu screen automatically.

4.5.4 System Information

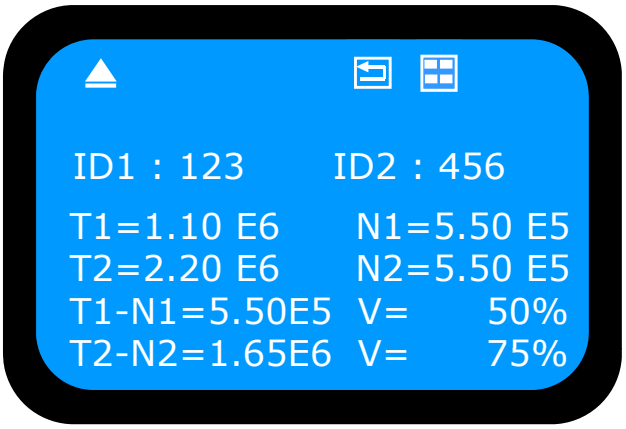
The device versions and date which have been installed in the device can appear when the number 5 key is selected from the MENU. After pressing the 'Enter' key, the screen will return to the Menu screen automatically.



Section 4. General Operation

☞ **Press the '*' key after menu setting. Once inputted, the screen will return to the counting mode automatically.**

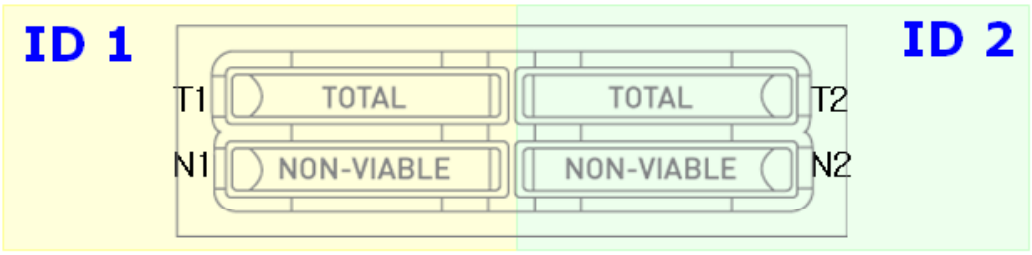
4-6. Result Analysis



* 1.10E6 = 1.10 X 10^6 cells/ml

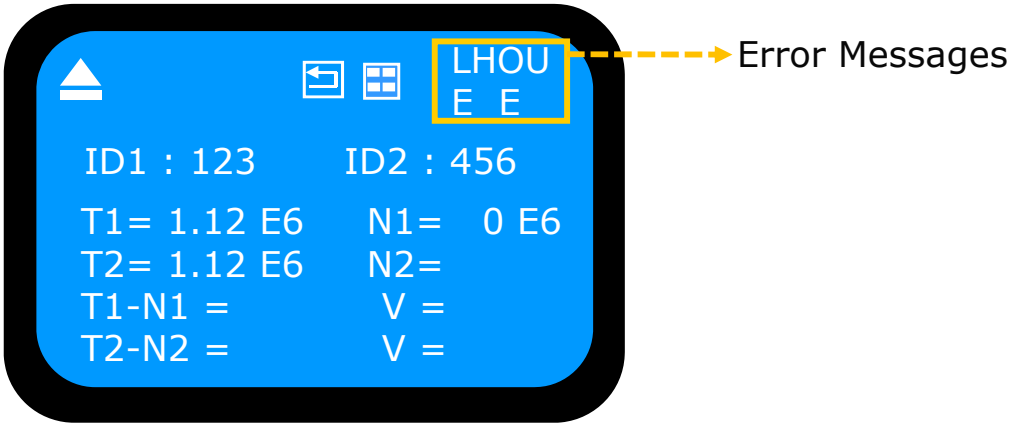
	Sample name	Number of Total cell	Number of Non-Viable cell	Viability
ID1	123	T1 (1.10E6)	N1 (5.50E5)	50%
ID2	456	T2 (2.20E6)	N2 (5.50E5)	75%

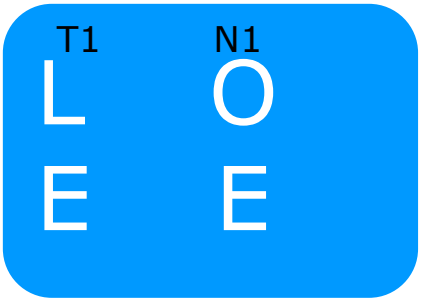
The viability will be automatically calculated by the Adam software after each measurement of the total cells and the non-viable cells. First, the total cell number and second, non-viable cell number were measured and then the cell viability is calculated as subtracting non-viable cell counting numbers from total cell counting.



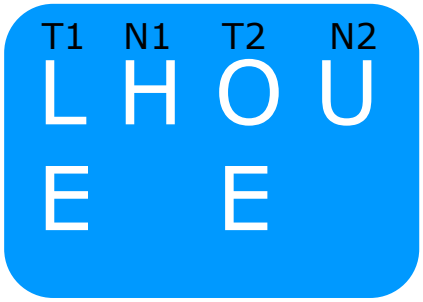
AccuChip4X

Section 4. General Operation





[2 channel]

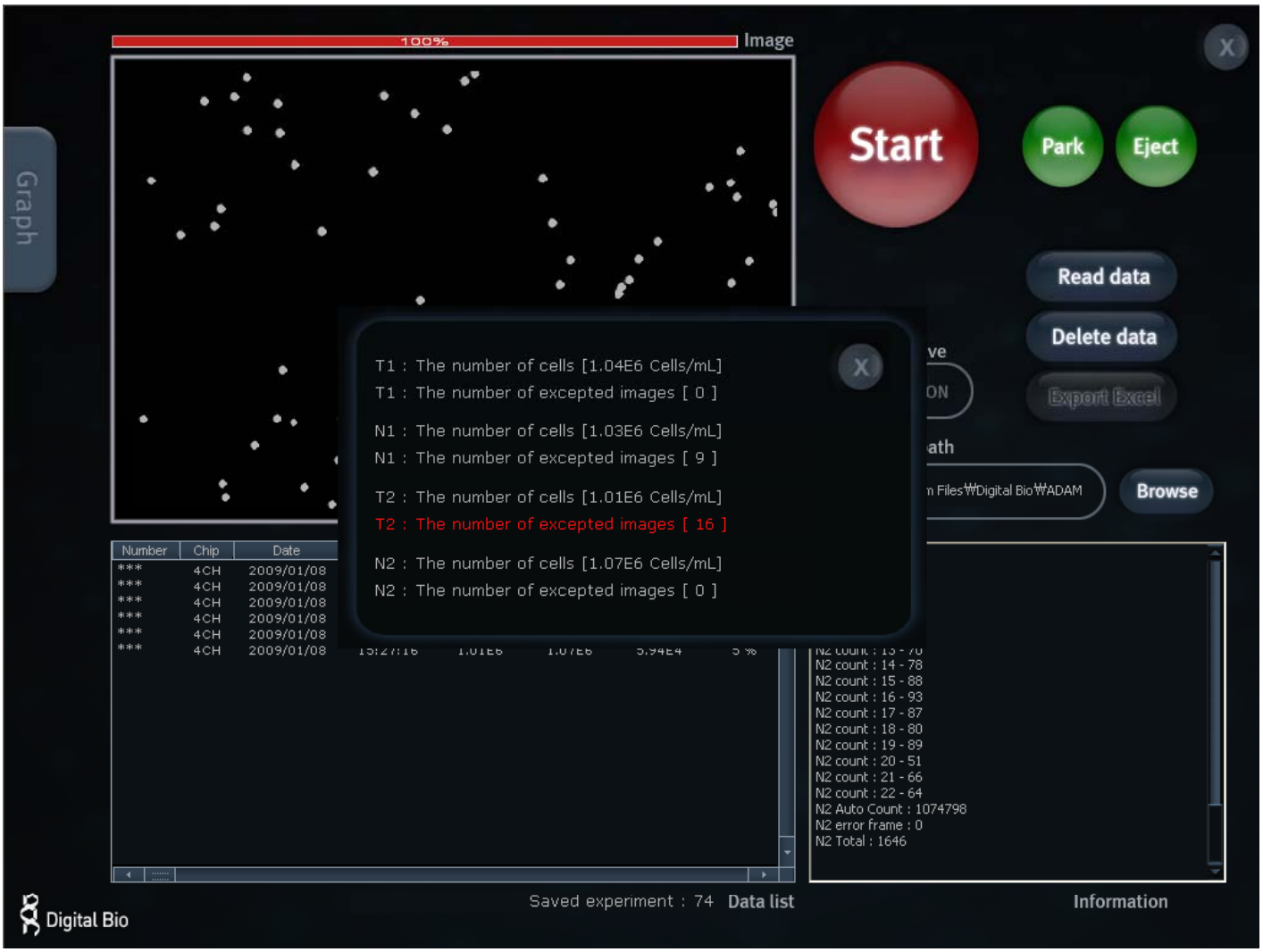


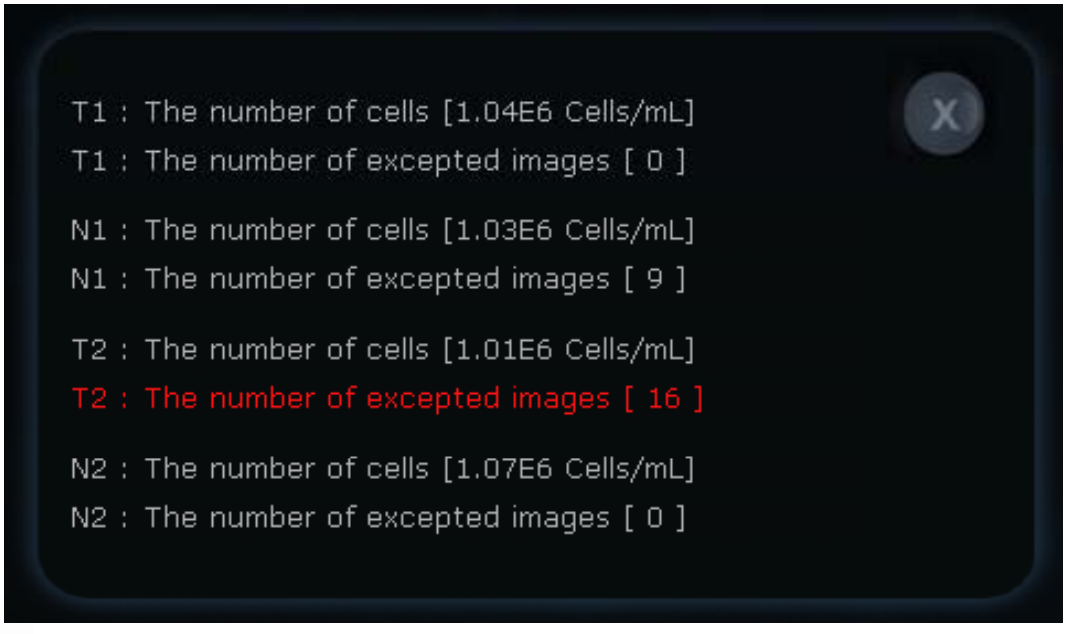
[4 channel]

E	This error message will show in case when frames with errors are over 50% of total counting frame. Frame with error is a frame that contains cells whose diameter is larger than 30μm.
O	This error message will show in case when there are cells more than $4X10^6$ cells/ml. "Over detection range" will be shown on Report program.
H	This error message will show in case when there are cells more than $2X10^6$ cells/ml. "High concentration cells" will be shown on Report program.
L	This error message will show in case when there are cells less than $4X10^5$ cells/ml. "Low concentration cells" will be shown on Report program.
U	This error message will show in case when there are cells less than $5X10^4$ cells/ml. "Under detection range" will be shown on Report program.

Section 4. General Operation

[Sample image of error message in Report program]





4-7. Maintenance and Cleaning

ADAM does not need regular maintenance.

ADAM has no replacement of consumable materials

Clean the exposed outer surface of ADAM using a soft cloth and isopropyl alcohol or deionizes water.

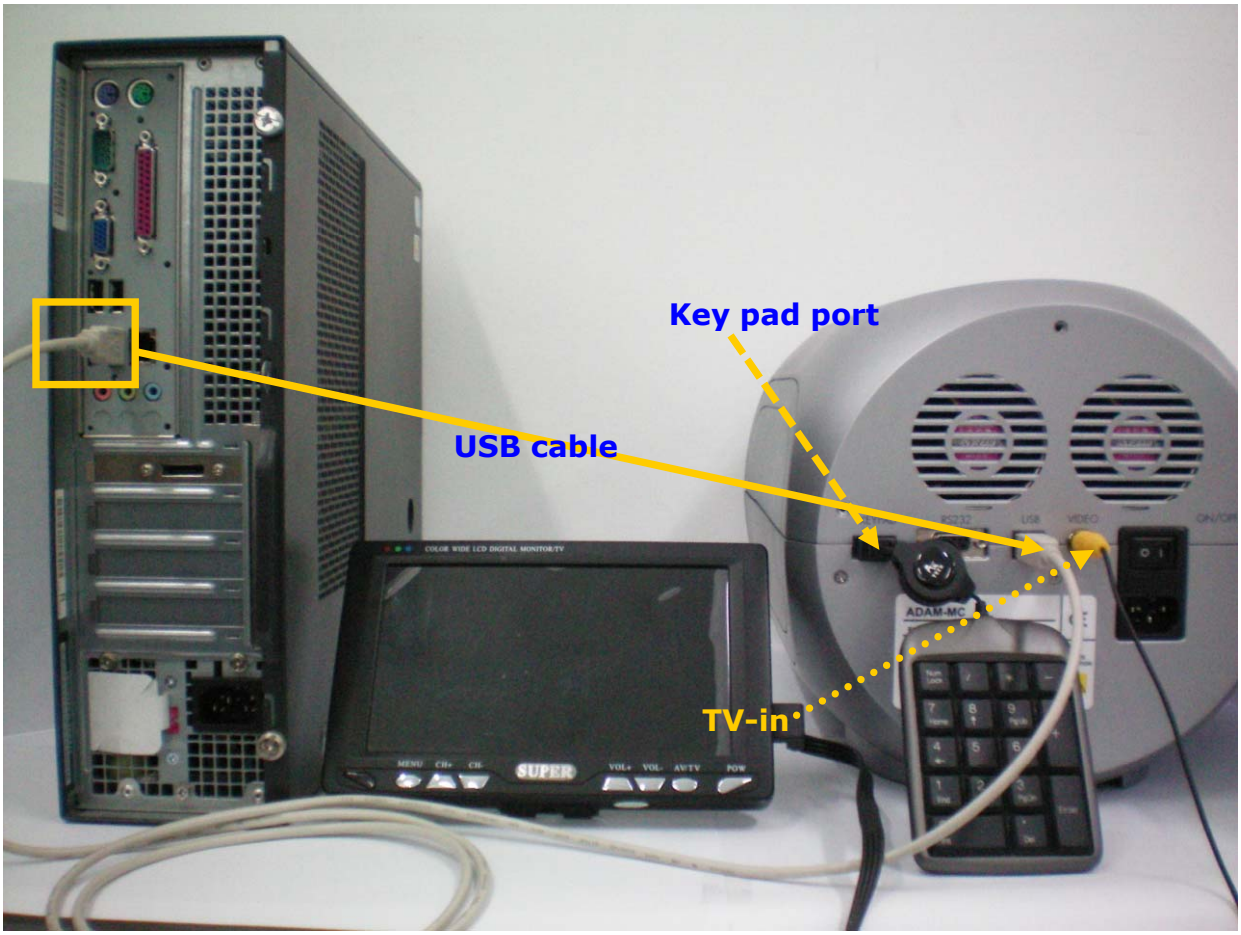
⚠ CAUTION:
Dispose of wipes in an appropriately labelled solvent contaminated waste container.

Section 5. Hardware & Software Installation

5-1. Connection between ADAM and computer

The following steps will guide you to connect USB cable.

1) Connect the USB cable to ADAM.
2) Connect the USB cable to Desktop or Laptop computer.
3) Turn on ADAM and Desktop computer.

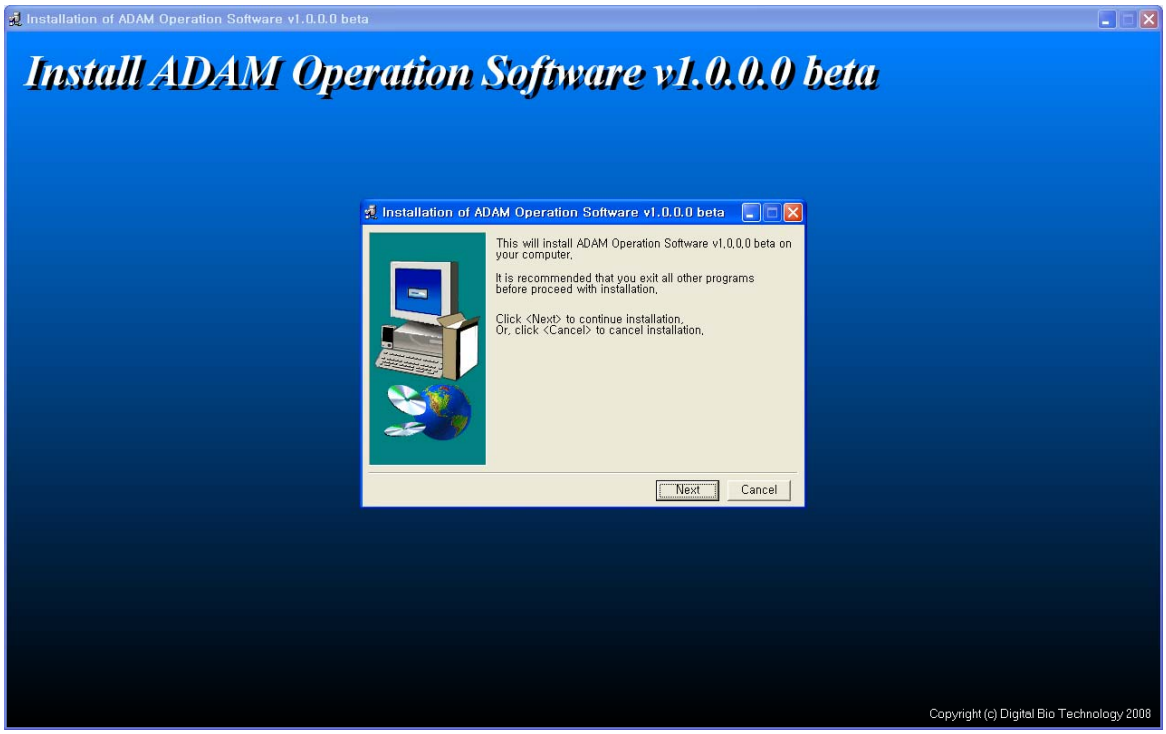


5-2. ADAM Report Software Installation

To install the Adam Report software, follow the directions as below.

1) Insert the installation CD-ROM into the computer. Then open the file "**Setup_ADAM_v1.x.x.x.exe**". *(Report program can be installed in Windows 2000, XP or higher version.)* The start-up dialogue of the software, as shown below, will appear. Click "Next" to start installation.
2) If you want to change installation folder, click "Browse" and choose the location that you want. After choosing installation folder, click "Install" to proceed with the installation. The computer activates the "Installation of the Software".
   ☞ *Initial installation folder is "C:\Program Files\Digital Bio\ADAM".*
3) Report Program will be installed automatically.
4) Click "Ok" to finish the installation.

* If the installation was successful, the report program can be found at **Start>All Program>ADAM**.

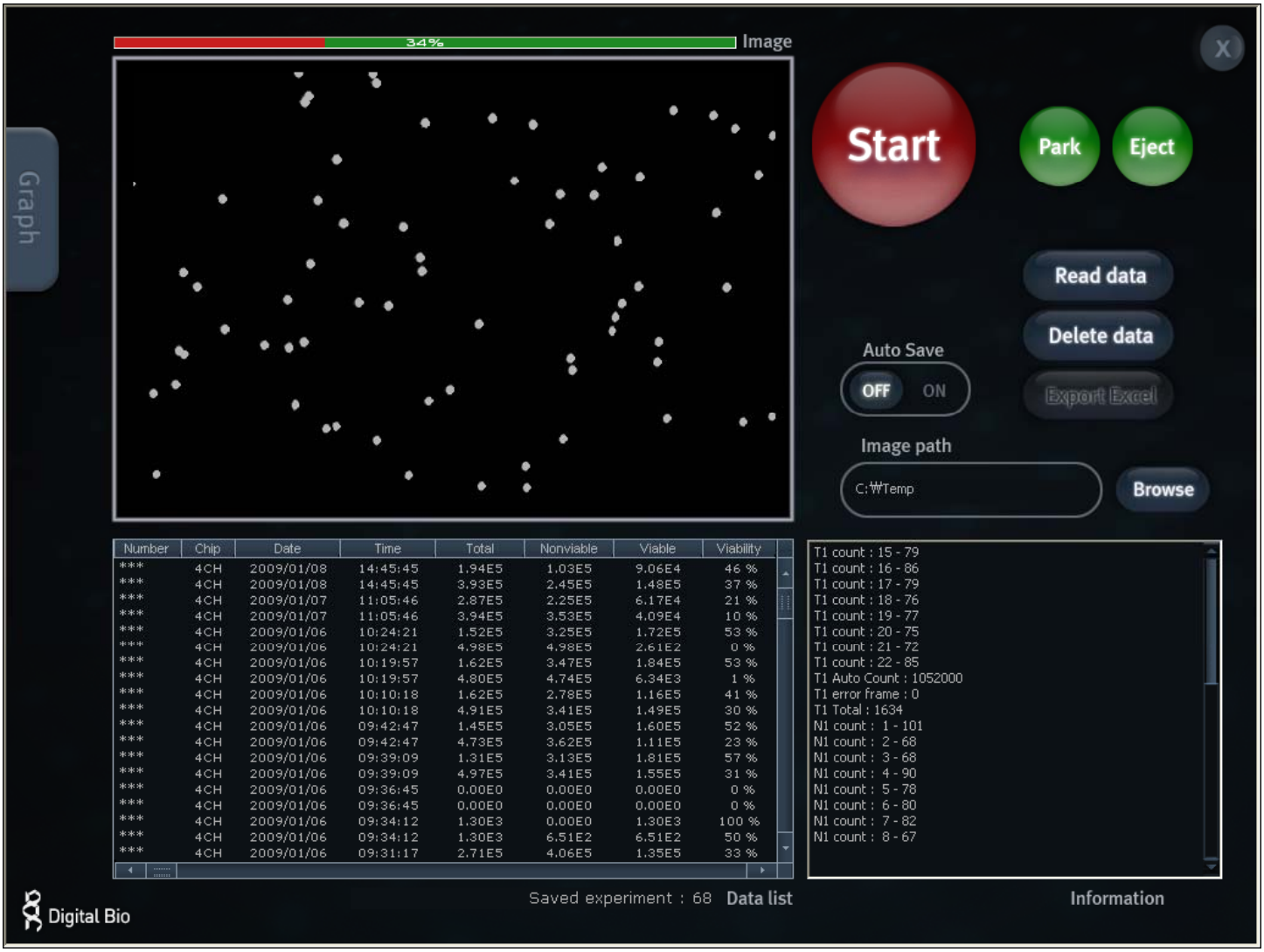


Section 6 ADAM Report Program Guide

6-1. ADAM Report Program: Introduction

This Report Program is designed to manage and report all results from ADAM. All measurement results are automatically saved on the memory of ADAM. The user can download the data from the memory of ADAM and export it to Excel (*.xls) format. The user can delete data from memory of ADAM or can save captured images into Desktop or Laptop hard drive. The data list window consists of the sample number, chip, date, time, total, nonviable, viable, viability counting result in %.

- CAUTION: Before running the program, check the connection of USB cable between the Adam and the laptop or desktop computer.



6-2. ADAM Report Program: Function Guide

① **Image frame** – Image captured by ADAM will be shown here

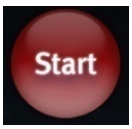
② **Function Buttons** – Start cell counting, saving images, exporting data, and all function of Report Program are handled by using these buttons (see p.28 for more detailed information of each button)

③ **Data List** – All saved data in ADAM will be loaded and shown in data list section

④ **Information** – Operation and counting results of each frame will be displayed here

⑤ **Graph** – Analysis of results including cell size and frame by frame counting will be shown in graph section

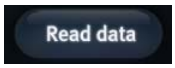
② Function Buttons



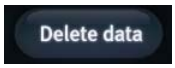
Start cell counting

Park (Lock) stage of ADAM

Eject chip holder out of ADAM

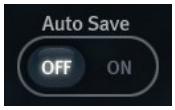


Loads the experiment data from the memory of the main device.



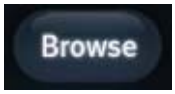
Deletes all of the loaded data and memory of the main device.

Transfers the data list to Excel format and saves it.



Turn on or off automatic image save option

Default image save folder is "C:\Program Files\Digital Bio\ADAM\Images". Images will be saved until your hard drive has no more capacity to save. Be sure to set Auto Save off, unless you need to save images.
Example of saved image file: 081221(yymmdd)-203482(hhmmss)-N1(channel name)-002.bmp



Choose folder to save images automatically

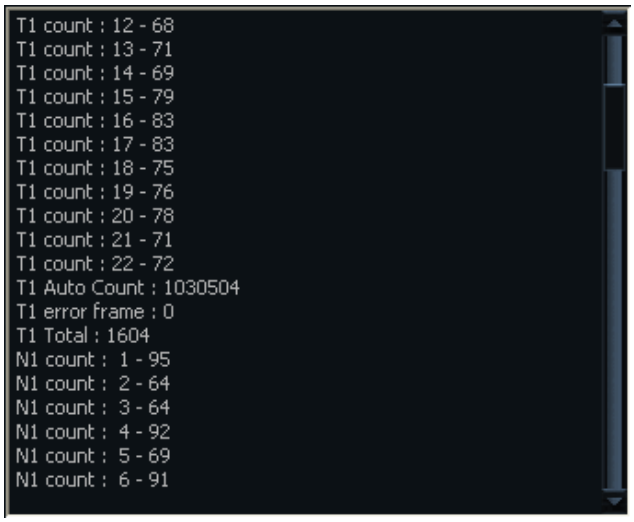
③ Data List

Number	Chip	Date	Time	Total	Nonviable	Viable	Viability
***	4CH	2008/12/14	18:34:58	6.37E4	5.65E4	7.24E3	11 %
***	4CH	2008/12/14	18:34:58	5.73E4	7.16E4	1.43E4	20 %
***	4CH	2008/12/11	11:08:09	7.76E4	2.71E5	1.93E5	71 %
***	4CH	2008/12/11	11:08:09	3.17E5	8.39E4	2.33E5	73 %
***	4CH	2008/12/09	20:23:01	3.62E4	3.59E5	3.22E5	89 %
***	4CH	2008/12/09	20:23:01	4.08E5	6.00E4	3.48E5	85 %
***	4CH	2008/12/09	20:20:15	4.29E4	3.65E5	3.22E5	88 %
***	4CH	2008/12/09	20:20:15	4.02E5	6.75E4	3.35E5	83 %
***	4CH	2008/12/09	20:17:30	3.45E4	3.60E5	3.26E5	90 %
***	4CH	2008/12/09	20:17:30	4.01E5	7.16E4	3.30E5	82 %
***	4CH	2008/12/09	20:14:44	3.96E4	3.56E5	3.17E5	88 %
***	4CH	2008/12/09	20:14:44	4.13E5	6.96E4	3.43E5	83 %
***	4CH	2008/12/09	20:11:12	3.11E4	3.15E5	2.84E5	90 %
***	4CH	2008/12/09	20:11:12	4.09E5	6.16E4	3.47E5	84 %
***	4CH	2008/12/09	20:09:31	2.69E4	3.06E5	2.79E5	91 %
***	4CH	2008/12/09	20:09:31	4.11E5	6.18E4	3.49E5	84 %
***	4CH	2008/12/09	20:07:49	3.45E4	3.08E5	2.73E5	88 %
***	4CH	2008/12/09	20:07:49	4.03E5	5.80E4	3.45E5	85 %
***	4CH	2008/12/09	20:06:08	3.62E4	3.07E5	2.71E5	88 %

Saved experiment : 120 Data list

Data list shows data stored in ADAM memory. Total amount of stored results are indicated at bottom of list as "Saved experiment". Up to 200 counting results are automatically saved to ADAM memory. When memory of ADAM is full, new counting result will replace old data. These data can be exported as Excel Sheet (*.xls) and stored in personal computer or can be erased from ADAM memory.

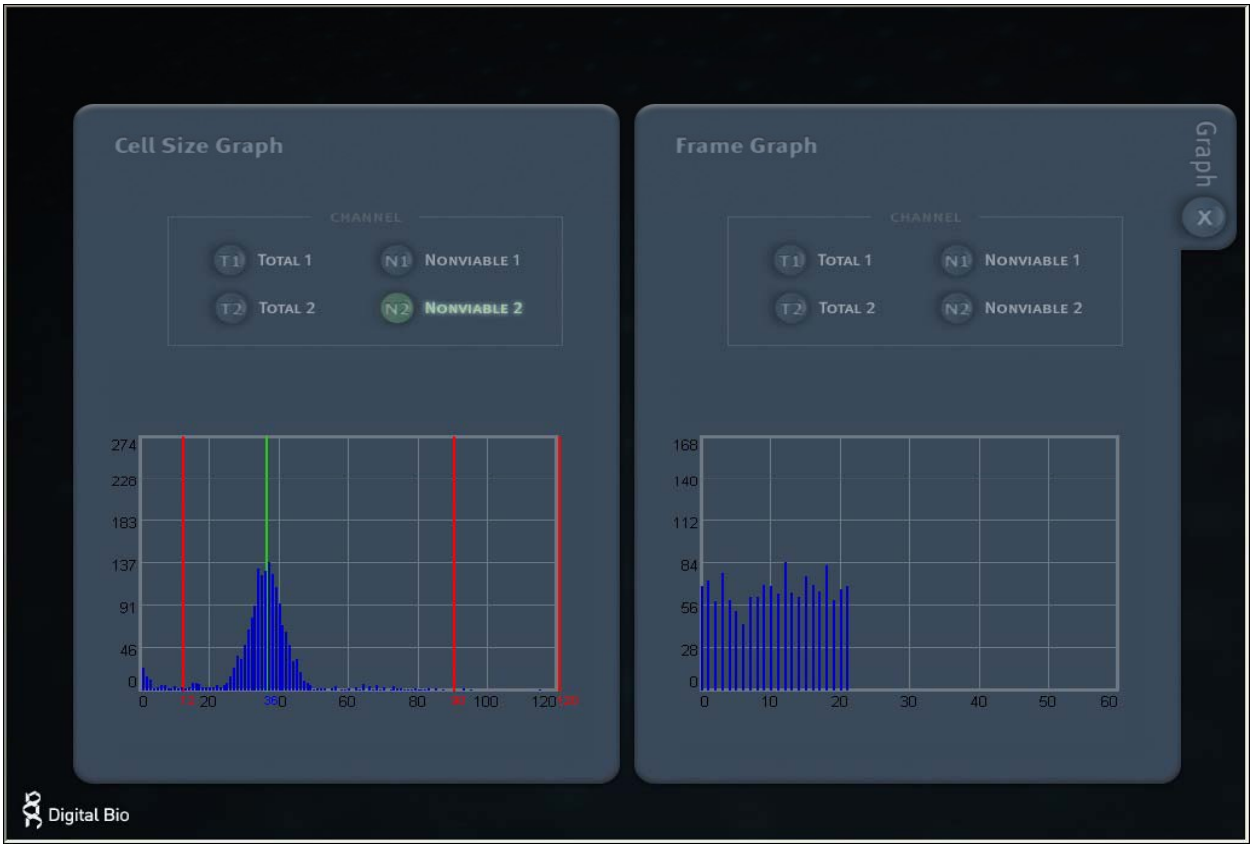
④ Information



```
T1 count : 12 - 68
T1 count : 13 - 71
T1 count : 14 - 69
T1 count : 15 - 79
T1 count : 16 - 83
T1 count : 17 - 83
T1 count : 18 - 75
T1 count : 19 - 76
T1 count : 20 - 78
T1 count : 21 - 71
T1 count : 22 - 72
T1 Auto Count : 1030504
T1 error frame : 0
T1 Total : 1604
N1 count :  1 - 95
N1 count :  2 - 64
N1 count :  3 - 64
N1 count :  4 - 92
N1 count :  5 - 69
N1 count :  6 - 91
```

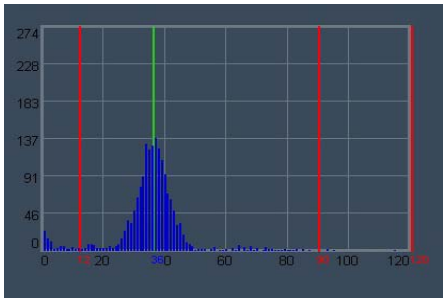
This section shows information regarding operation of ADAM. If cell counting is started through Report Program, the counting results of each frame that ADAM captures will be shown here.

⑤ Graph



This section shows information of cell size distribution and counting results of each frame that ADAM captured. Through cell size graph, you can figure out whether there are cell clumps or aggregates. In case of counting evenly distributed cells without any aggregation, there should be a single peak on distribution of cell size.

- The size of cell in graph is not real size of cell. It is the size of pixels in fluorescence image captured by ADAM. And the size information is only to judge if there is a lot of aggregated cells.



Vertical red line indicates the cut-off size. Counting results between first and second red line are counted as single cell and those between second and third line are counted as 2 cell, and so on. Any results before first red line will not be counted as cell.

Appendix A Trouble shooting

Troubleshooting Table

Problem	Cause	Solution
ADAM does not power up	Power switch in off position. No power from outlet. Bad power cord.	1. Check power switch on back of unit. 2. Check power source. 3. Replace.
Inaccurate result	Cell number may be out of range. AccuStain Solution has expired. Too high clumped cells.	1. Adjust the number of cells between $5X10^4$ ~ $4X10^6$ cells/ml (refer to page 21). 2. Check the expired data. 3. Try again after vortexing the cells
Software does not work	PC setup incorrect/wrong instruct mode. Cable's not fully connected/ wrong adaptor.	1. Check program setup. 2. Check all connections.
When error message is shown *(☞For information on each error message, see page 19.)*	When there are too many frames with errors (Error message: E)	1. Check the suspension of cells if all cells are fully dissociated into single cells. 2. If contaminants except cells are found, prepare sample again.
	When too many cells are loaded (Error message: O)	1. Check if concentration of cell is too high. 2. Dilute the sample and count again.
	High concentration of cells (Error message: H)	1. Check if concentration of cell is high or not. 2. Dilute sample and count again
	Low concentration of cells (Error message: L)	1. Check if concentration of cell is low or not. 2. Use concentrated sample and count again.
	Too few cells are loaded (Error message: U)	1. Check if concentration of cell is too low. 2. Use concentrated sample and count again.

Appendix B Warranty

Digital Bio warrants that the ADAM will be free from defects in material and workmanship for a period of one (1) year from date of purchase.

If any defects occur in the ADAM during this warranty period, Digital Bio will repair or replace the defective parts at its discretion without charge. The following defects, however, are specifically excluded:

1. Defects caused by improper operation.
2. Repair or modification done by anyone other than Digital Bio or an authorized agent.
3. Damage caused by substituting alternative parts.
4. Use of fittings or spare parts supplied by anyone other than Digital Bio.
5. Damage caused by accident or misuse.
6. Damage caused by disaster.
7. Corrosion caused by improper solvent or sample.

For your protection, items being returned must be insured against possible damage or loss. Digital Bio cannot be responsible for damage incurred during shipment of a repair instrument; It is recommend that you save the original packing material in which the instrument was shipped. This warranty should be limited to the replacement of defective products.

For any inquiry or request for repair service, contact sales@digital-bio.com or your local distributor.

Appendix C Technical Specifications

ADAM

Voltage: AC100~240 V, 50~60 Hz

Current: max. 1.8 A, max 100 W

Fuse: F3.15AL250V

Objective lens: 4 X

LED: 4W Green LED

IEC 60825-1: 1993+A1;1997+A2;2001

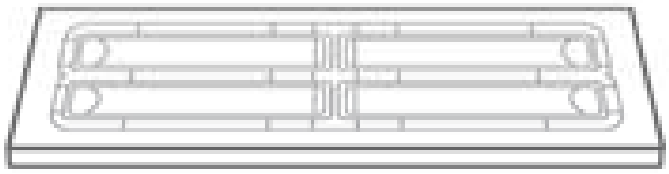
CCD camera: B/W CCD

Filter: Excitation filter, Dichroic filter, Emission filter

Weight: 9 Kg

Size (W×L×H): 220 × 375 × 250 mm

Degree of protection : IPX0



AccuChip

Measuring range: 5×10^4 to 4×10^6 cells/mL

Analysis time: 2 ~ 2.5 min/test

Loading sample vol.: 20 µL (for AccuChip 2^X)
12 µL (for AccuChip 4^X)/test

Measuring vol.: 8.5 µL (for AccuChip 2^X)

3 µL (for AccuChip 4^X)/test

AccuStain Solution T, N

PI (propidium iodide) staining of total cells and non-viable cells.

Accessories

Power cord: 1.5 m

Fuse: 250 VAC, 3 A; F3.15AL250V

Keypad

External video monitor (optional)

Environment Condition

5 ≤ T ≤ 30 ℃

Altitude ≤ 2000 m

Appendix D Product List

Cat. No.	Product	Contents	Quantity
Adam-MC	Adam	Main device	1
ADM-001	External video monitor (optional)	7” LCD Monitor	1
AD2K-200	AccuChip^{2X} Kit (Max. 400 tests/kit)	200 pcs AccuChip^{2X}	1
		12.5 ml AccuStain solution T	2
		12.5 ml AccuStain solution N	1
AD4K-200	AccuChip^{4X} Kit (Max. 800 tests/kit)	200 pcs AccuChip^{4X}	1
		12.5 ml AccuStain solution T	2
		12.5 ml AccuStain solution N	1
ADR-1000	AccuStain (Max. 1,000 tests/kit)	12.5 ml AccuStain solution T	4
		12.5 ml AccuStain solution N	2

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