ROMANOFF®
INTERNATIONAL SUPPLY CORPORATION

Yasui

SMART WAX PRODUCTION SYSTEM

ALTIMA

INSTRUCTIONS

ROMANOFF®
INTERNATIONAL SUPPLY CORPORATION

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- The manufacturer shall in no event be liable for any damage resulting from improper use, negligence to follow the warnings and cautions in the instructions manual or the labels on the machine, unskillfulness, use of non-original optional / consumable accessories / spare parts, non-authorized modification.
- The manufacturer shall in no event be liable for any consequential or indirect damages including, but not limited to, loss of production or loss of profit or damages due to machine downtime.
- Damages to the instrument and / or human bodies resulting from contacting with high temperature parts, and their consequential or indirect damages are not compensated by the manufacturer.
- Damages resulting from delay of reaction at emergency and mistaken operation are not compensated by the manufacturer.
- Damages from electrical noise, over voltage, or wiring error are not compensated by the manufacturer.
- Mold production results by the machine or by this manual are not compensated by the manufacturer.
- No part of this document may be copied or in any way reproduced without the expressed written consent of the manufacturer.

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1. SAFETY INSTRUCTION

⚠ WARNING

1. Do not look into the wax injection nozzle by bare eyes because unexpected discharge of molten wax from the nozzle may cause eye burn.
Be sure to always place a rubber mold or a pan in front of the wax injection nozzle to block molten wax flow so as to prevent accidental flow of molten wax into the eyes or over the skin. Because wax injected from the wax injection nozzle is heated above 70 degrees Celsius, the eyes or skin may be burnt.
If the eyes or skin was exposed to molten wax, flush and cool the eyes or skin with a large amount of cold water and get prompt medical attention.
2. Take care not to touch the START button (blue) of the control unit unnecessarily, because the machine starts its injection process automatically.
3. Do not place fingers on the moving parts such as platen, as this could result in injury. Fingers may be pinched between the platen and the bottom edge of cylinder base.
4. Do not place any object on the operation panel of the ALTIMA controller.
5. Turn off power when the operator leaves the ALTIMA unattended.
6. Reduce wax tank pressure of the wax tank as near as the atmospheric pressure (zero) when the operator leaves ALTIMA unattended, and do not apply pressure inside wax tank to prevent unintended injection of molten wax.
7. The machine must be properly grounded.

⚠ CAUTION

1. Some exterior metal parts (areas not coated with paint, such as nozzle, lid of wax tank) may become very hot.
When you need to touch those parts, wait until they become cool.
2. Turn the air regulator knob to 'zero' when the operator leaves machine for long time.
3. Rated fuse should be installed in place, so that damage to machine at unexpected short-circuit can be prevented.
4. At the time of cleaning or maintenance work, do not wipe surface of the warning labels stuck on the surface of machine.

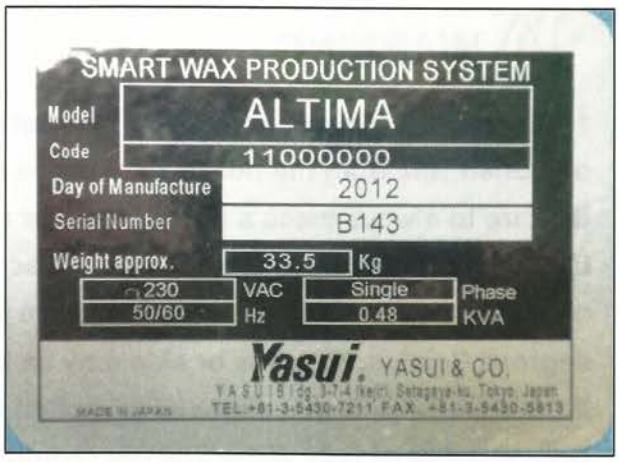
2. INTRODUCTION

2-1. SPECIFICATION LABEL

The principal specifications label of this machine is affixed on the back panel of ALTIMA

Apply power specified voltage printed on the label.

Should any voltage exceed beyond the specified voltage, the manufacturer is not responsible to guarantee performance of ALTIMA.



2) When ordering spare parts, specify the production serial number that is printed on that label. Other information on the label should be recommended to take note.

2-2. WORKING CONDITIONS

1) Use the machine at temperatures ranging 0-40 degrees Celsius and humidity under 70%.
2) Apply power voltage 230 V AC, 50/60 Hz, single phase only.
3) Do not use the machine under atmosphere with too much dust or with harmful gas.

2-3. INSTALLATION

1) It is very important to handle and install ALTIMA with enough attention to show the superior performance.

2) Please recognize ALTIMA works under precise pneumatic control by every 1kPa, which needs very careful installation.

3) Please begin installation from to check loose connection first, especially when it is transported by car.

2-4. CONTROL

1) ALTIMA's operation panel is newly developed special PC which is genuine computer.
Please understand this means ALTIMA is not immediately activated by just after power ON.
It takes certain time as well as usual personal computer which makes you feel wait long.
You have to treat ALTIMA as computer and be careful not to shut down the power or remove USB flash drive without correct method.
You may have serious problems such as freeze of computer or system USB breakage.
We strongly recommend you to have electric power supply back up like UPS to avoid system breaking down by electricity.

2) Please try to check "System USB flash drive" inside of control panel when you notice ALTIMA shows no reaction at all.
It can be loosen or come out from PCB by transportation.

3) You have to be careful if you purchase USB flash drive for data back up or other purpose in your local market as follows;

* Select the capacity from 2GB to less than 16GB.
(Over 16GB cannot be recognized)
* Some memories with special function, like security and others, cannot be recognized.
* Some of memories made of SONY cannot be recognized.
* Must be less than SUPER SPEED USB (USB 3.0)

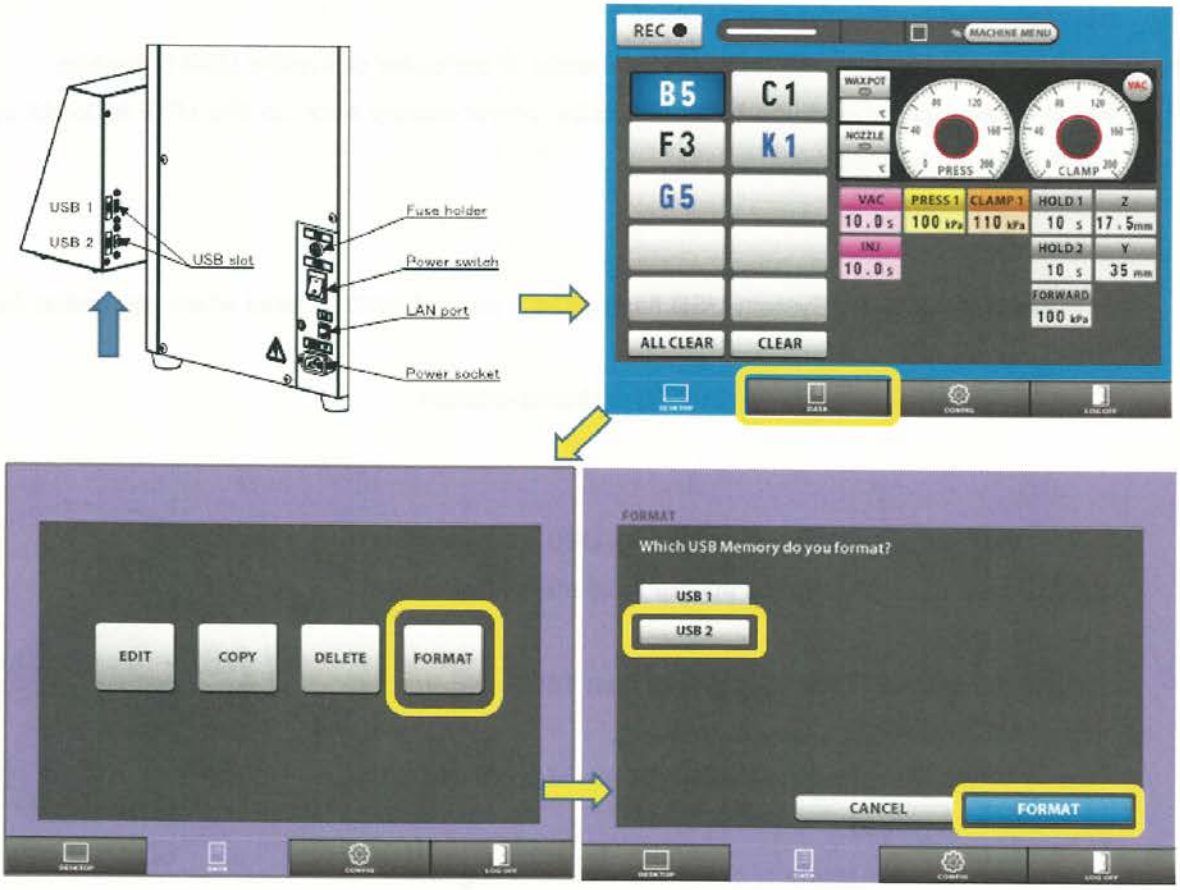
**** Please be careful not to make any typing mistakes when formatting, copying or editing on PC. ALTIMA will not recognize the file or folder even by only 1 mistake.**

**** We strongly recommend you to keep spares by some reason as follows;**
USB flash drive is a very useful device which is space conservative, light weighted for nice handling which is suitable for the purpose.
On the other hand, it is not suitable for long time use and so many times of reading and overwriting repeated which means just consumables.
Please agree with its basic principle (other limitation as follows) and try to help yourself by keeping spares. (Most of manufacturers never guarantee even initial defective)
* Connector structure, micro electric devices, file systems, data transfer speed, virus menace

4) USB flash drive format

Please format empty USB flash drive as follows; (detailed info at 16-4 DATA MENU)

Log in with User SUPERVISOR level, put empty USB flash drive into slot2, Go to DATA tab, tap FORMAT button, tap USB2 and tap FORMAT button.



* Only USER level SUPERVISOR is allowed to format.

5) Please note that we have "half life period" on back up light for Liquid Crystal Display (LCD). Actual half life period on ALTIMA's display is approx. 3 years when you use it with 100% brightness.

ALTIMA is always shipped out with initial brightness setting 50% to save life time of back up light. You can also control its life by using suspend function.

2-5. BASIC PREPARATION

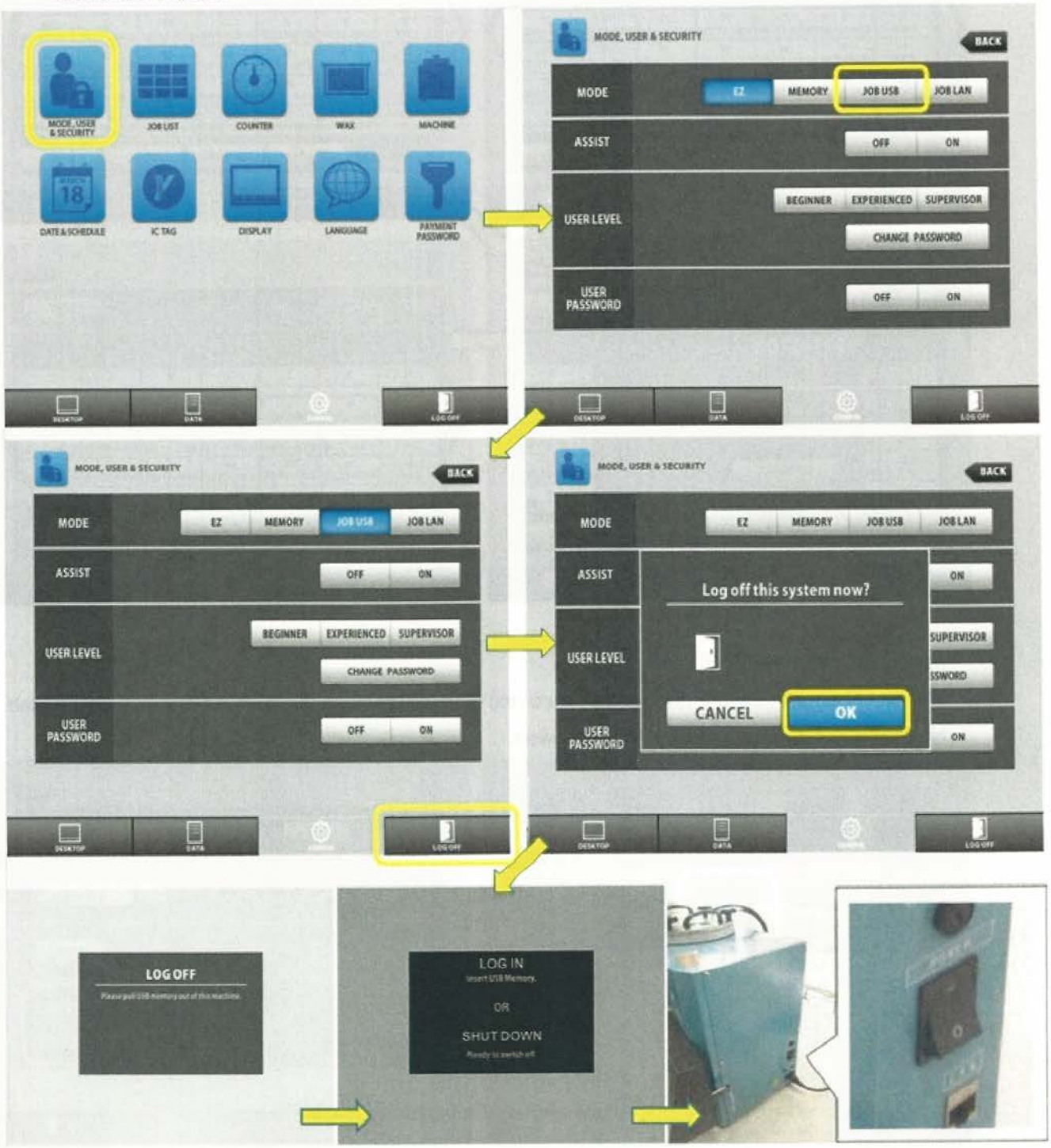
1) SWITCHING MODE

ALTIMA starts up with EZ MODE after your logging in.

You have to follow the instruction which will be described later when you want to switch mode.

Quick instruction as follows;

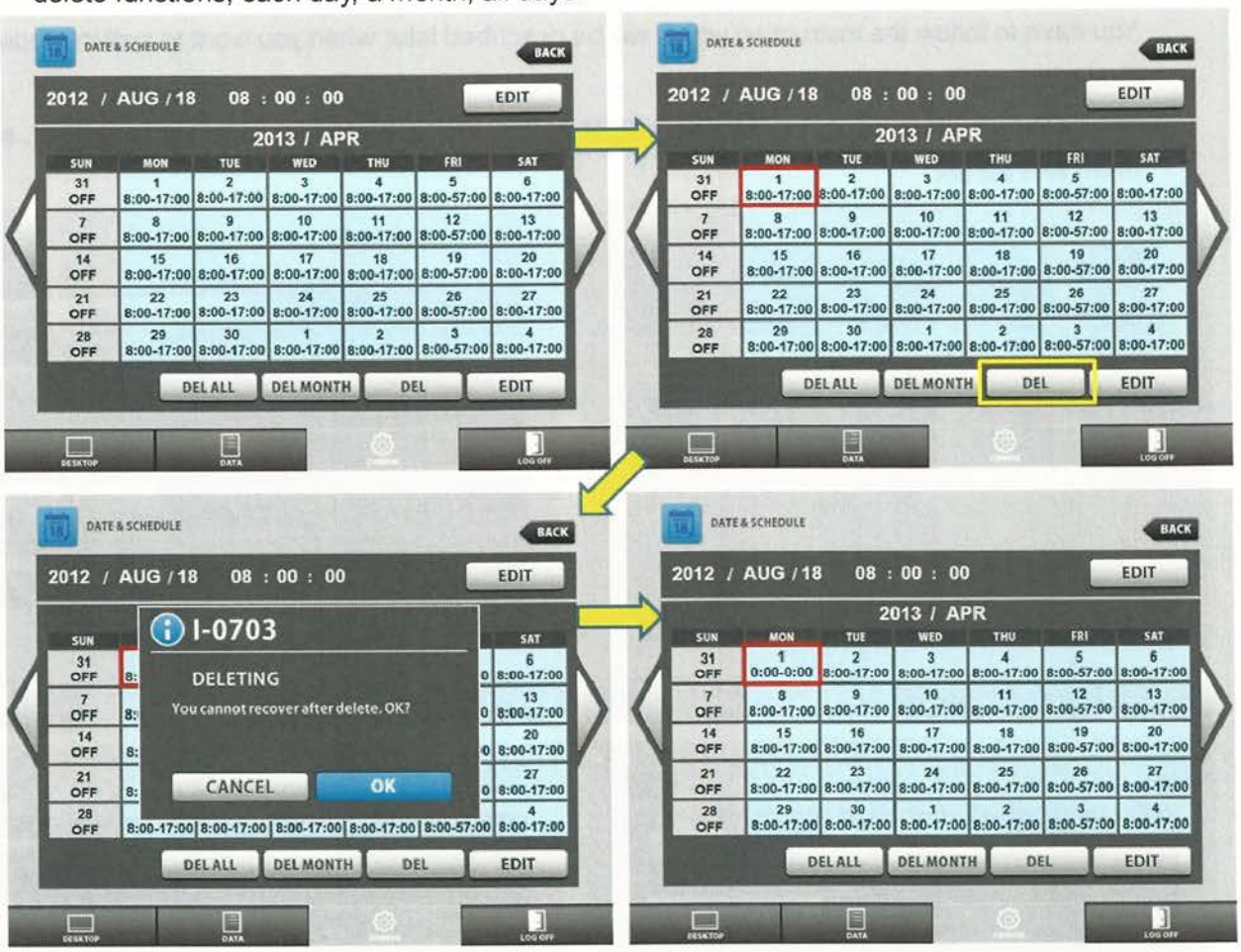
Tap CONFIG tab to open, tap MODE, USER & SECURITY button, change mode, log off, shut down and reboot.



2) SCHEDULE / How to cancel timer schedule

You have a choice not to set any schedule on ALTIMA.

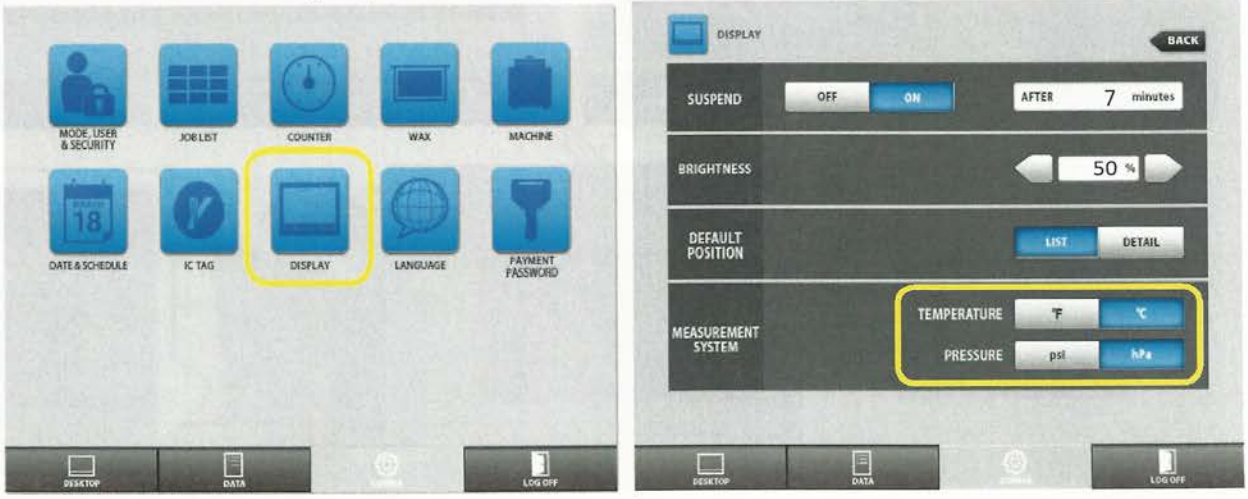
Choose a day and tap [DEL] button. Timer setting of the date box will be changed to [0:00-0:00] This means ALTIMA keeps heating to maintain already set temperature. You have 3 kinds of delete functions; each day, a month, all days.



3) MEASUREMENT SYSTEM

You can change pressure and temperature unit of measurement at DISPLAY menu, CONFIG tab.

No mixture of different group can be allowed.



4) Choice of user level, Pass word

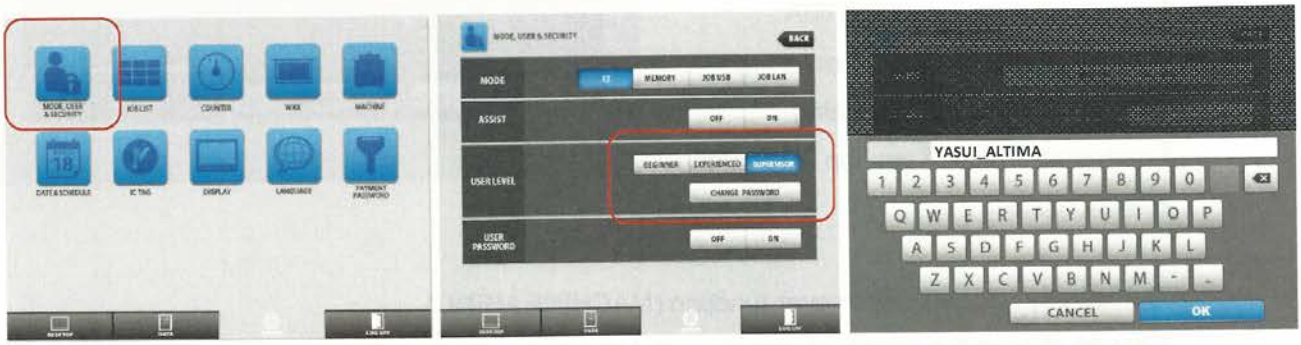
You can change user level at MODE, USER & SECURITY menu from CONFIG tab.

Just tap one of them when you want to go down.

You need to enter password when you go up level.

(The default pass word is YASUI_ALTIMA)

You can change password you like; Enter default password first and new password next.



CAUTION

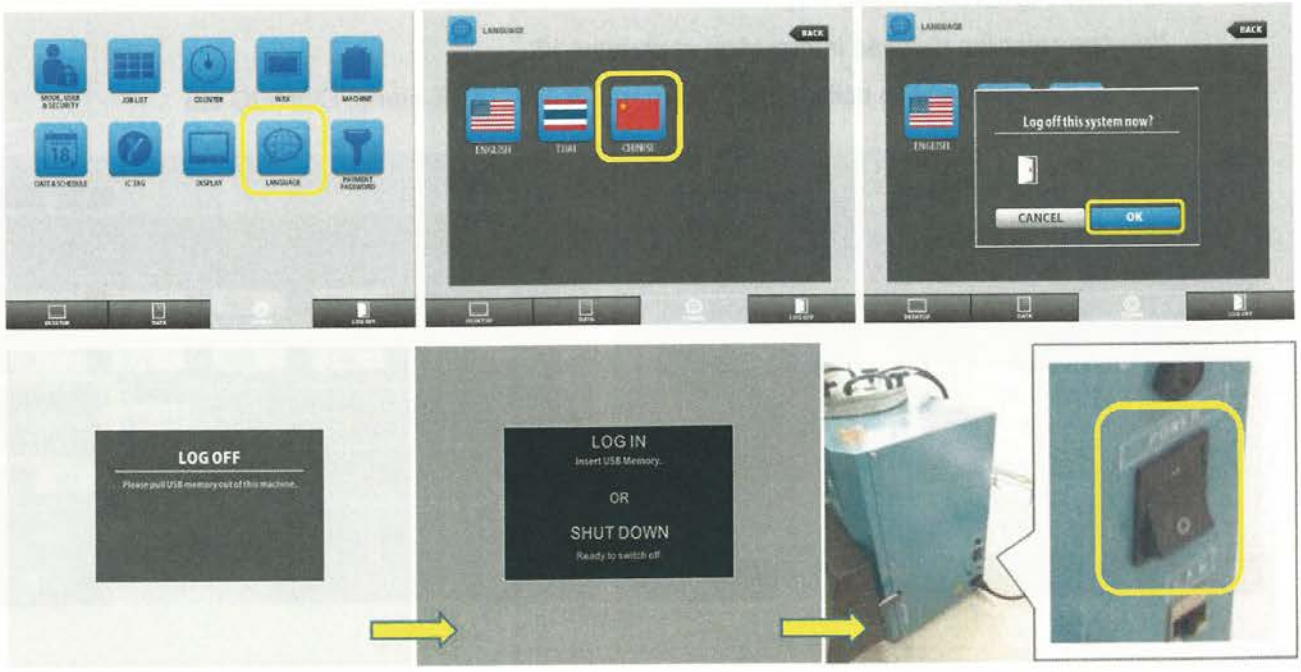
Please be careful not to forget password. You won't go up without it.

5) Choice of language

You can change language at LANGUAGE menu from CONFIG tab.

Tap one of them (you have 3 kinds; English, Thai, Chinese) and reboot.

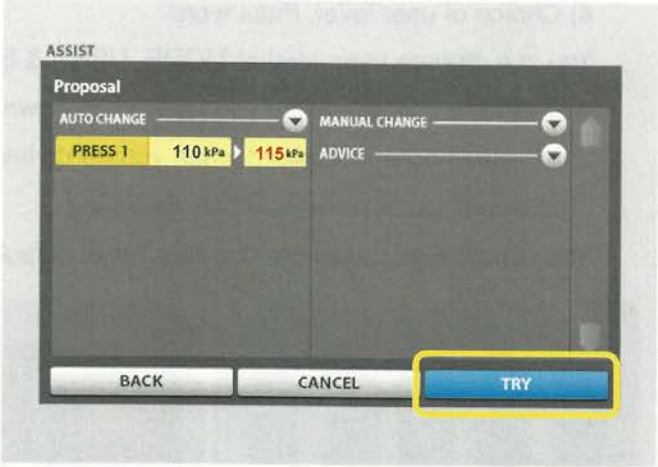
Default language is English



6) ASSIST FUNCTION

Please be careful not to forget to put rubber mold on clamp table when you tap TRY button at ASSIST FUNCTION because TRY button in this case is same as START button.

It is very dangerous as ALTIMA actually shoots hot wax from its nozzle. You can suspend it by pushing Emergency button if you tap TRY button without rubber.



7) Accuracy / Speed switch over function (MACHINE MENU)

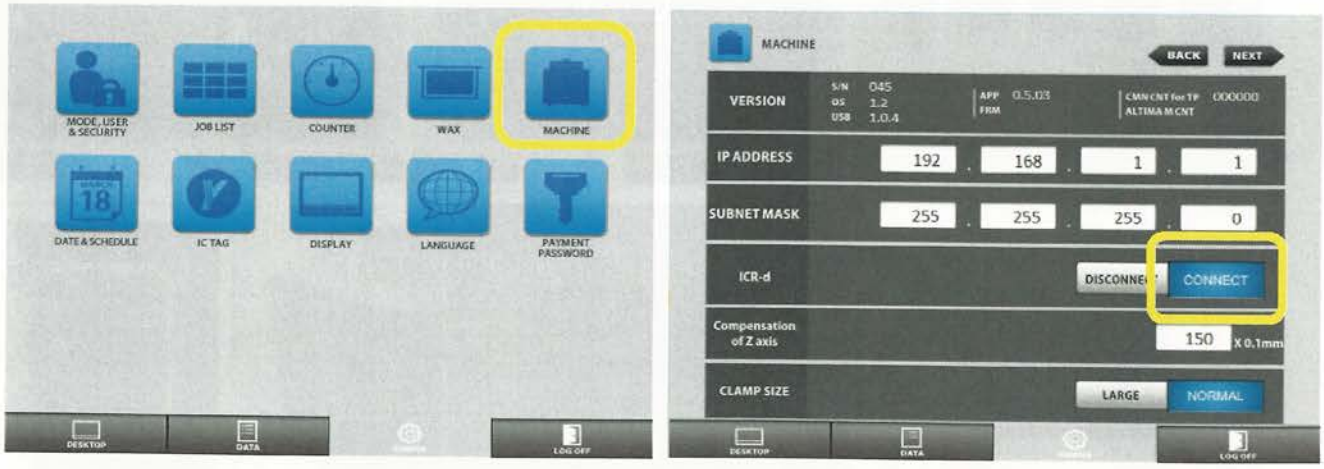
You can choose the priority of accuracy and speed as well as in between.

Go to CONFIG TAB from Desk Top, Tap MACHINE button, and Go straight to Page 3.

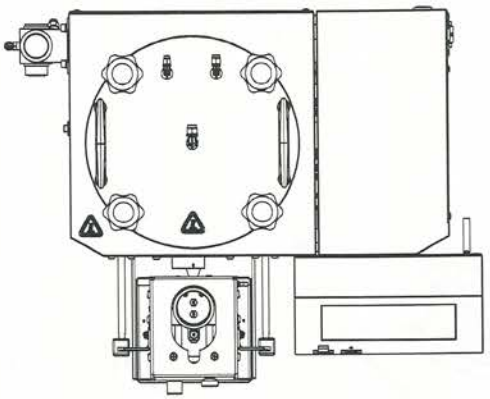
8) ICR-d (MACHINE menu P1)

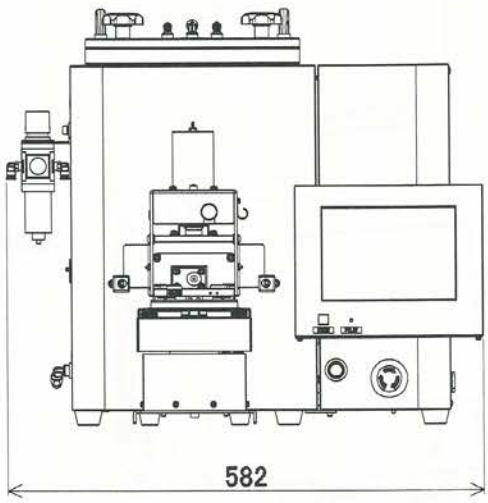
You can refer the detailed information at chapter 13.

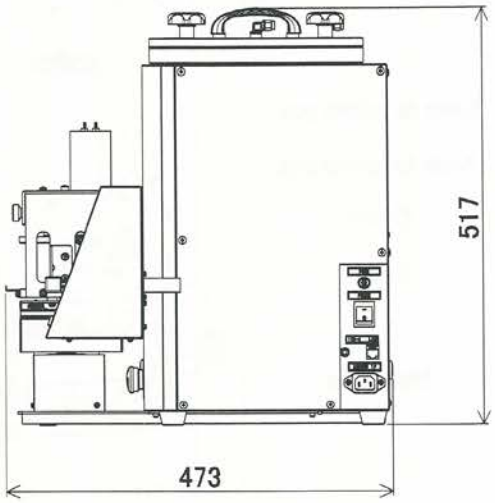
Before that you have to activate IC TAG menu at MACHINE menu, CONFIG tab



2-6. OVERALL DIMENTIONS OF THE MACHINE







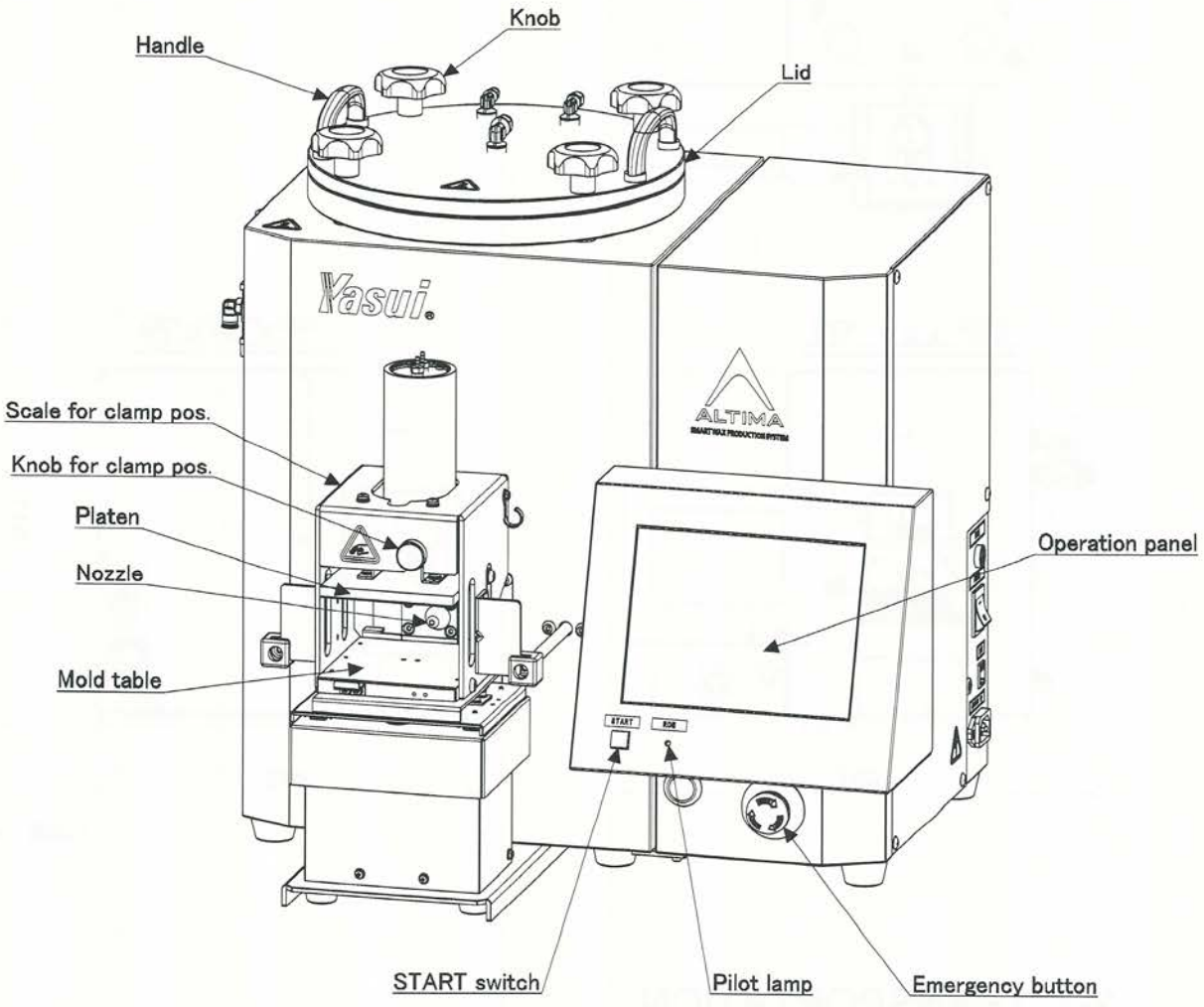
(Unit : mm)

2-7. TRANSPORTATION

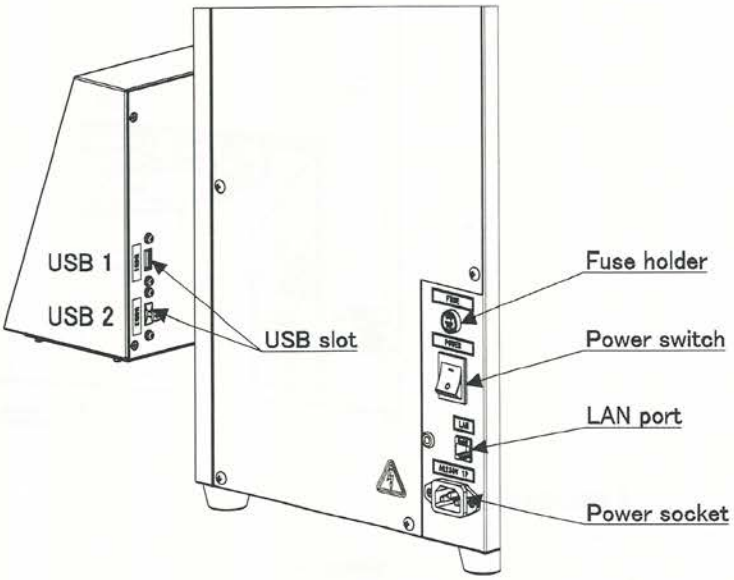
1) When you transport the machine, please put cushion material provided in the package with a double carton box.
2) Please do not turn upside down.
3) Hold the bottom of package with both hands by two people.
4) Do not expose the package to water.
5) Do not give vibration to the machine.
6) Keep away from flame.

3. NOMENCLATURE

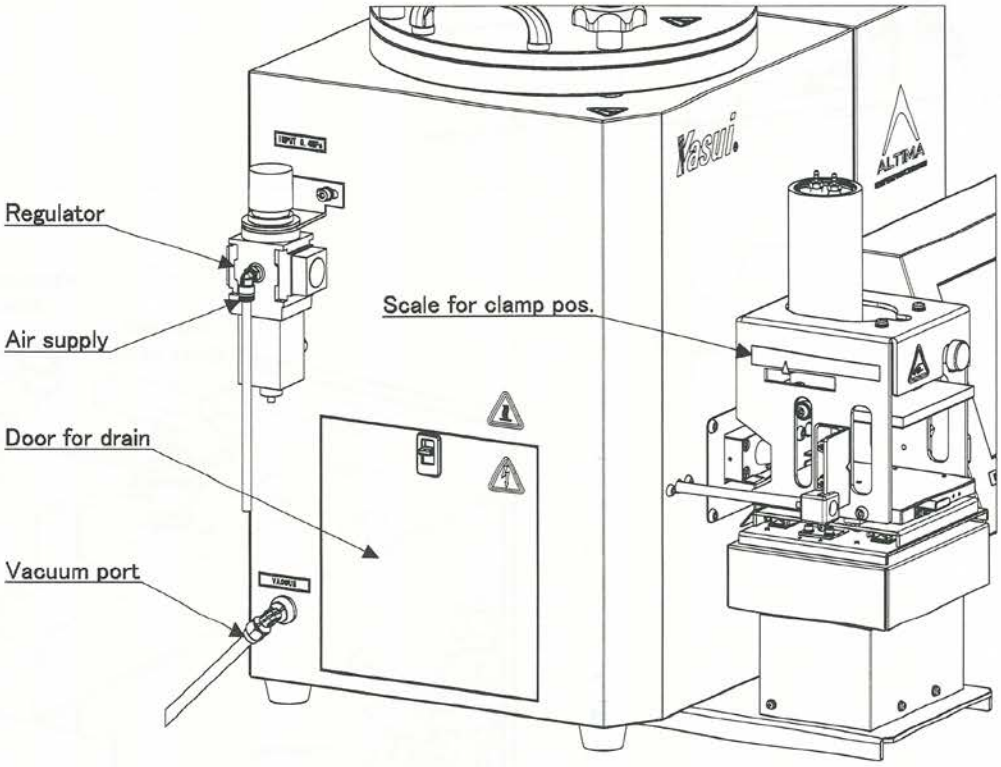
3-1. Front view

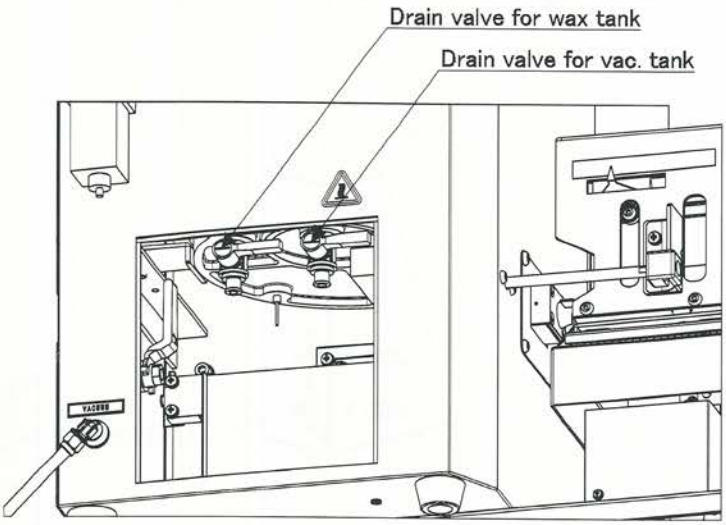


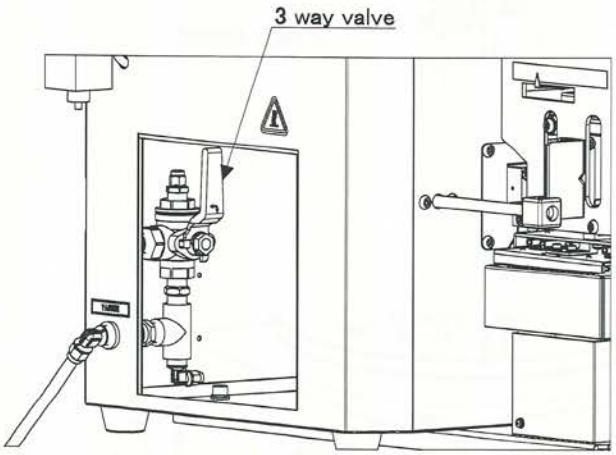
3-2. Right side view

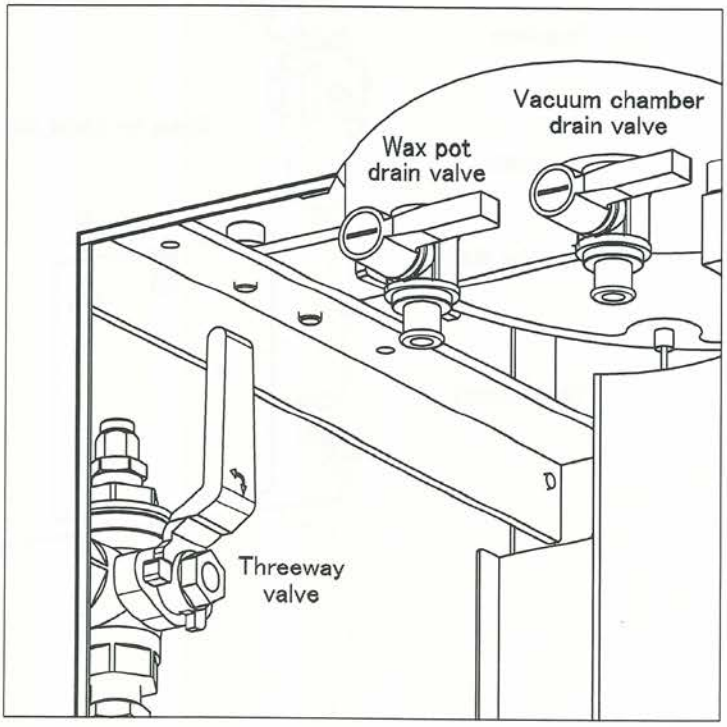


3-3. Left side view




Drain valve for wax tank
Drain valve for vac. tank


3 way valve


Vacuum chamber drain valve
Wax pot drain valve
Threeway valve

4. INSTALLATION

4-1. ACCESSORIES

1) Electric power cable
2) Plastic tube 6 mm dia. x 3m, Plastic tube 8mm dia. x 3m
3) Half union 8 mm dia. x 1/4"
4) 5A fuse
5) Adjustable acrylic jig
6) Allen keys 2.5mm / 3mm / 4mm
7) Filter regulator
8) User USB flash drive for SUPERVISOR
9) 3 pcs. of Key holder for USB flash drive
10) Instruction manual
11) User sheet
12) Attention of registration

Please check those parts surely included in the box without any damages.

4-2. PLACE

1) Please do not hold weak part like knob on lid, Clamp unit, Control panel, Regulator and others when you take it out from the box or carry it on table.
2) Place the machine on a sturdy and stable bench.
3) Leave sufficient clearance around the machine so that daily work and maintenance should not be obstructed.
4) Place the machine in well-ventilated room.

4-3. CONNECTING POWER SUPPLY

Connect electric power source single phase 230VAC (±10%), 50/60 Hz, 0.48KVA.
Do not connect other power supply.

> ⚠ CAUTION
>
> **Be sure to connect to ground to prevent electrical hazard.**

4-4. CONNECTING AIR SUPPLY

* Compressor is not included in ALTIMA.

Connect air supply with cleaned and no moisture.

Automatic drain filtration system is strongly recommended.

(Minimum 0.4 MPa is required)

Fix included filter regulator (#7 in the list above) on the left side panel of ALTIMA.

Connect black plastic tube from the pane correctly into female fitting on the regulator as well as air supply to input port on it.

* Output pressure should be 0.35MPa

4-5. CONNECTING VACUUM PUMP

Connect vacuum pump. * Vacuum pump is not included in ALTIMA. Please order separately. Please select vacuum pump with pumping speed over 20 liter per minute, max. vacuum level over 9.3Pa if you purchase it in local market. * Refer Page 18

⚠ IMPORTANT

Please read the instruction manual of the pump before connecting ALTIMA.

4-6. WAX FILLING

⚠ IMPORTANT

The wax charged into wax pot must be always clean.

Please dissolve wax well in pan or pot and remove dirt or dust using filter paper or cloth.

Check the power is not ON. Check no pressure supplied to wax pot if power is ON.

Then remove lid by loosening 4 lock nuts (knobs) on lid.

⚠ CAUTION

Please be careful not to charge too much hot wax into wax tank.

Temperature sensor sometimes can be defective by hot temperature.

> ⚠ CAUTION
>
> **Please be careful not to give any damage to fixing bolt on the pot by lifting up straight.**

Please charge filtered wax into wax tank outside of pots.

4-7. DE-BUBBLIZING

When you charge new wax into wax pot, wax has many bubbles which cause air bubble problem on wax patterns after shooting. Please remove bubbles each time after charging wax.
You can do it just by removing vacuum seal on top of vacuum pot.

4-8. CALENDER SETTING

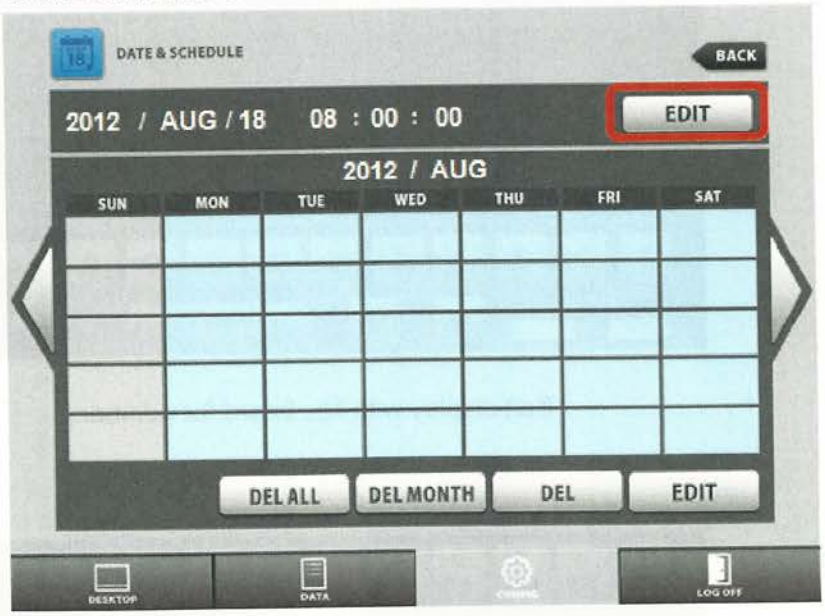
ALTIMA has calendar and clock in PC for DATE & SCHEDULE menu.
However you have to re-set date and time for your region only at installation.

1) Tap CONFIG tab to open CONFIG menu window.

2) Tap

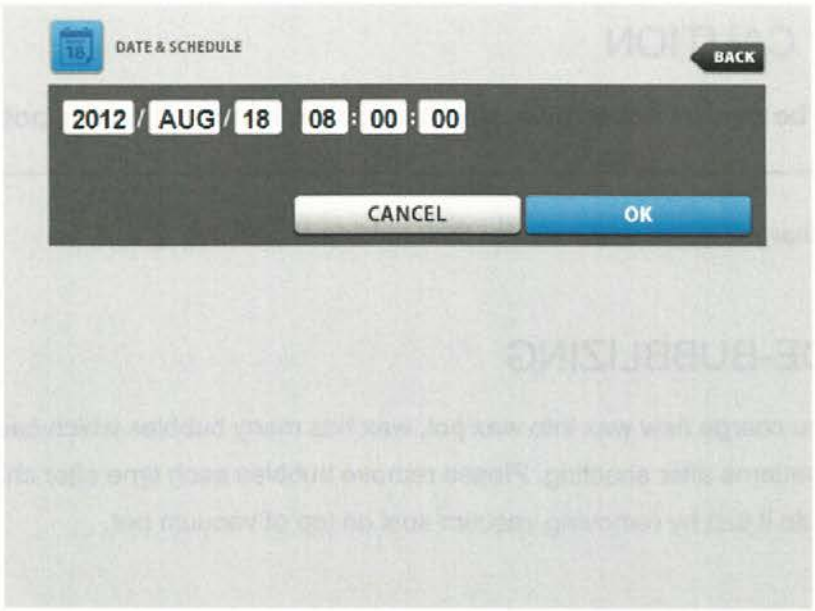
DATE & SCHEDULE icon to enter.

This is a DATE & SCHEDULE menu window.



3) Tap EDIT button on right upper corner on the window (marked in red).

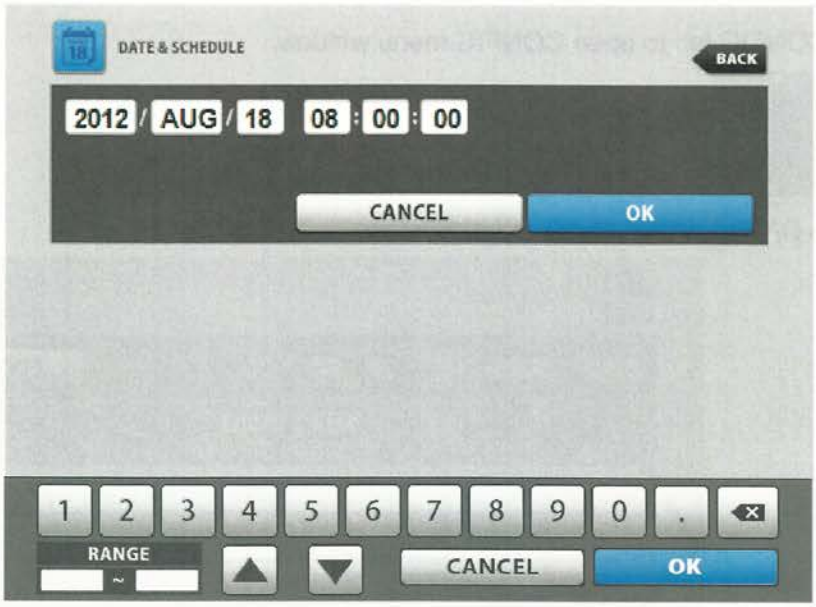
4) EDIT window is opened as bellow.



5) Tap any small window to edit to call keyboard.

6) You will see the same window with keyboard.

7) Edit with the keyboard and tap OK button to go back to DATE & SCHEDULE window.



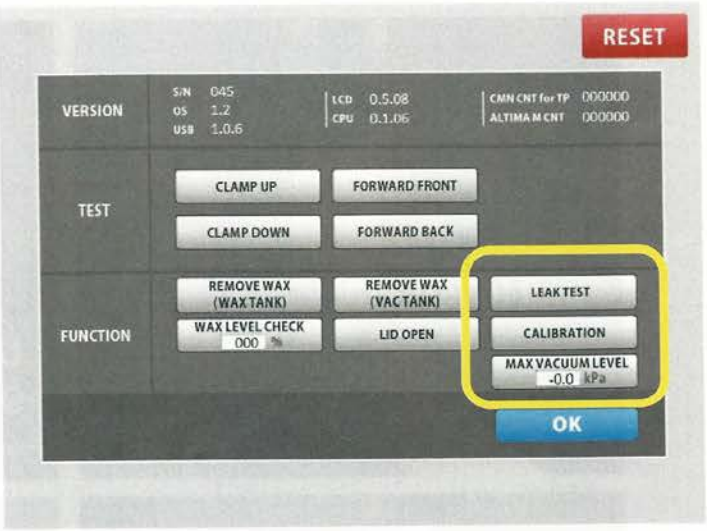
Edit display with key board for numbers

Key board for months

MACHINE MENU

You are going to set up those things as follows at MACHINE MENU on Desk Top window.

* LEAK TEST
* CALIBRATION
* MAX VACUUM LEVEL

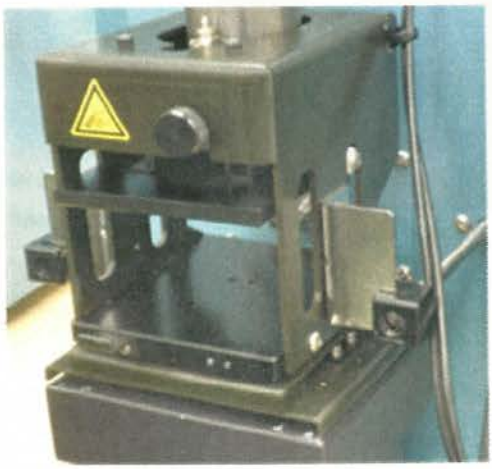


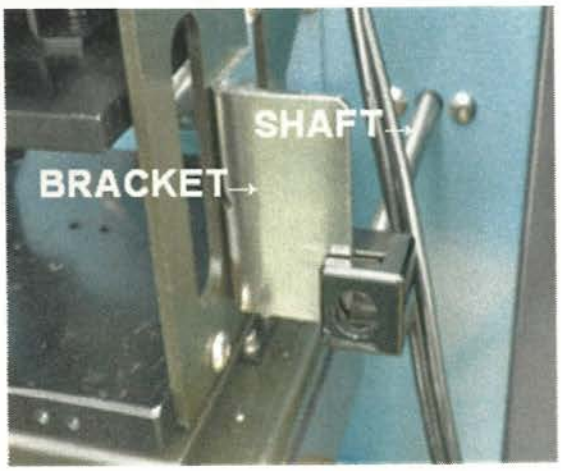
4-9. LEAK TEST

This is to detect leakage on every part of pneumatic tubing including vacuum line.
Tap LEAK TEST button as shown above.
Take notes of the result. Strongly recommended to test 3 times.

⚠ CAUTION

Clamp unit will hits ALTIMA's nozzle when LEAK TEST button is tapped.
You have to prevent damage on nozzle following the instruction as follows;





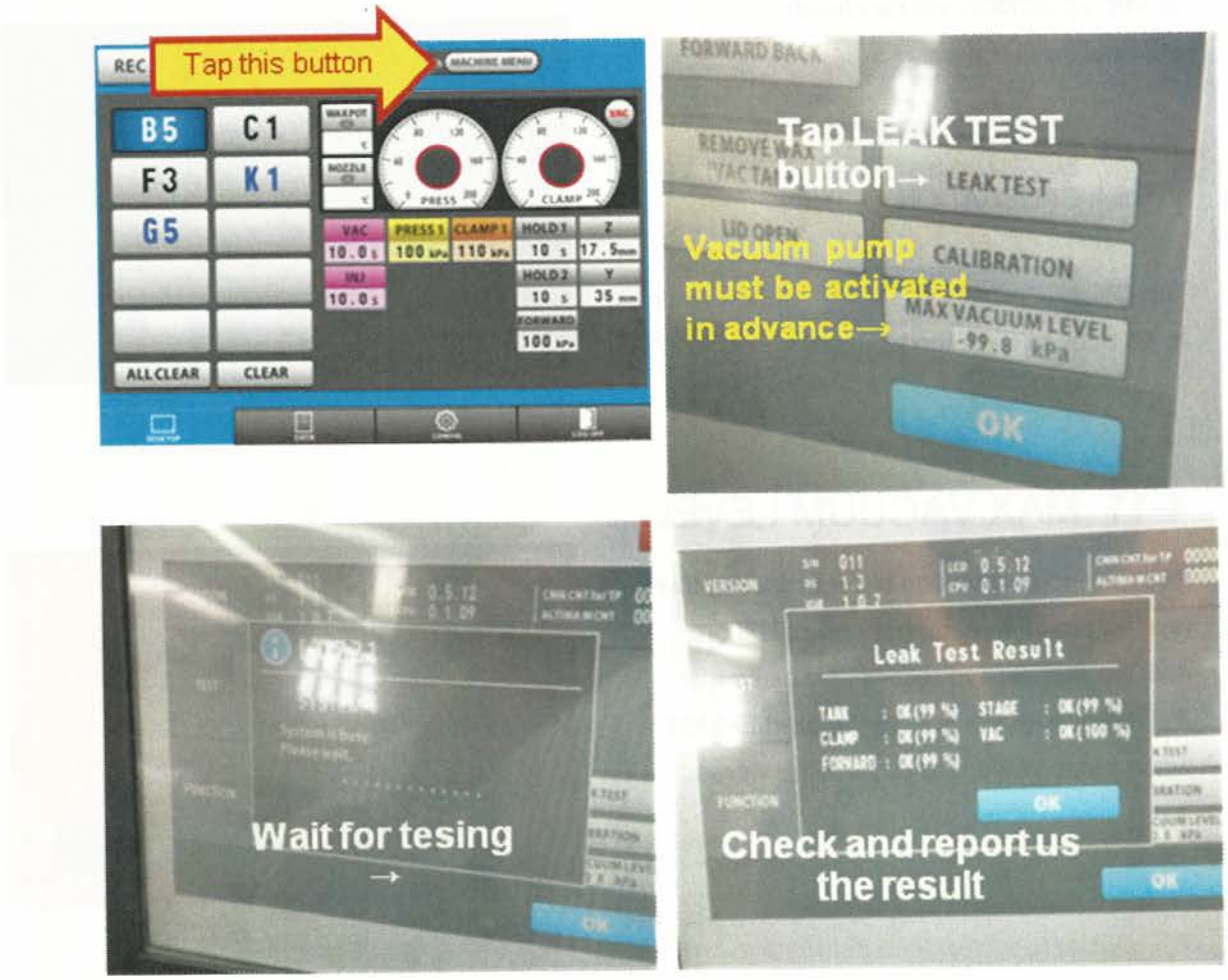
Push clamp
unit to left end
←

Release
bracket from
gap on block

Push clamp unit
to right end
→

Release
bracket from
gap on block

Now clamp
unit is free



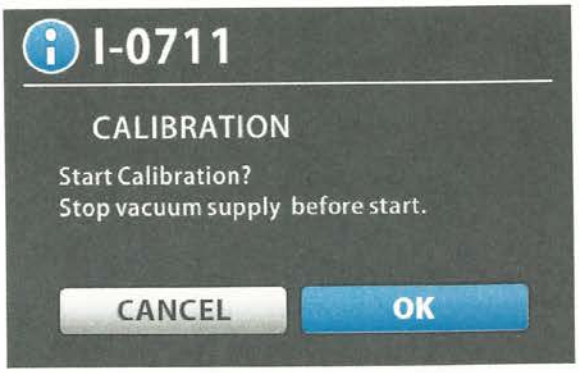
4-10. CALIBRATION (Zero adjustment of pressure sensor)

Only at very beginning after installation, you have to calibrate machine once.

1) Tap this

button from MACHINE MENU on desk top window. The pop up window below will be shown.

* You can refer about the detail of MACHINE MENU at Chapter 8-6-9

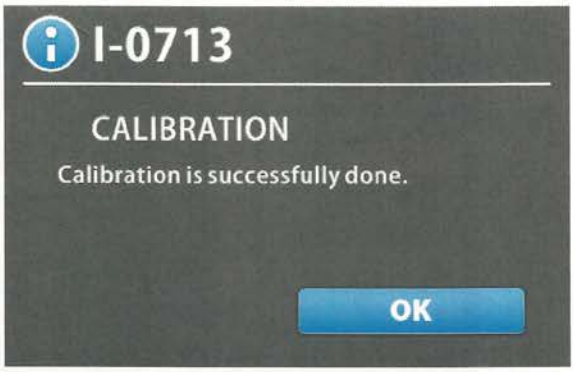


2) Tap OK

button to start CALIBRATION and wait for seconds.

* please follow the message and stop vacuum pump.

3) Pop up window will be shown after calibration done.



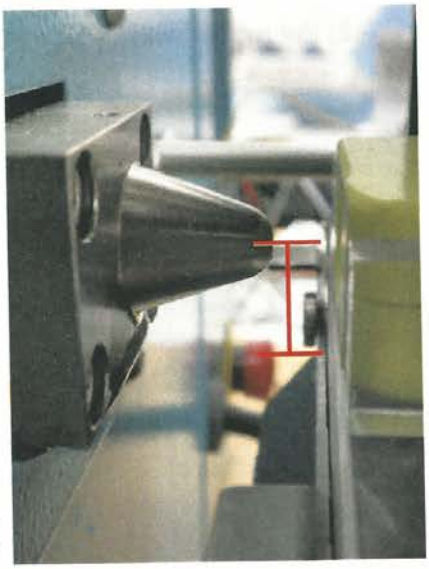
Tap OK [OK] button to finish CALIBRATION

Tap OK [OK] button again to go back to desk top window.

4-11. MAX VACUUM LEVEL

At this window, you can record max. vacuum level at present vacuum pump condition. Just tap this area to record at max. value. ALTIMA will inform you by the alert E-3405 when pump performance become worse.

4-11. Compensation of Z-axis

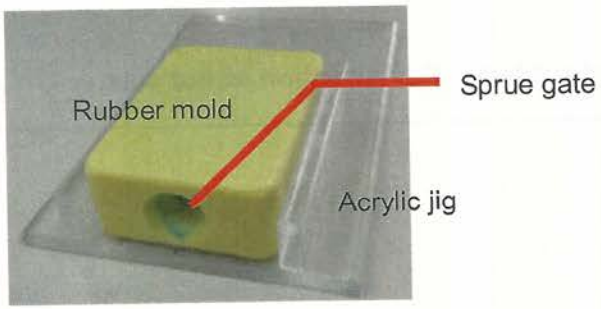


You have to measure and register the distance between center of nozzle and clamp table after you remove and disassemble clamp unit by some reason.
Please go to MACHINE MENU from CONFIG TAB.
You can enter the value at 5th line.
* Enter 128 if the distance is 12.8mm.

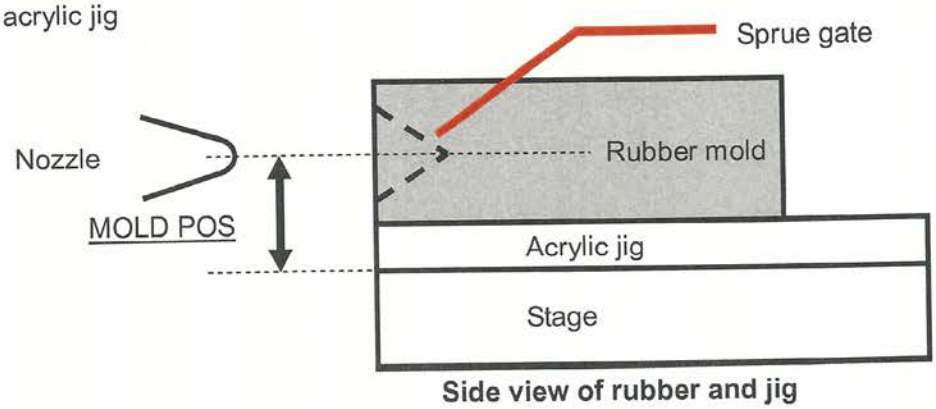
4-11. NEWLY DEVELOPED FUNCTION

ALTIMA has an innovative function.
You don't need to have a lot of acrylic jigs anymore for adjusting the height.
ALTIMA automatically adjusts each sprue gate height if you resister it in each recipe.

1) Please measure the height from the bottom of acrylic jig to the center of rubber gate (sprue) to enter the value to "MOLD POS" in recipe window. The value unit is mm.



Rubber mold and acrylic jig



Side view of rubber and jig

** Sprue former: Strongly recommended to use this when rubber vulcanizing to get the best fitting with the nozzle of ALTIMA.
#20515000 Sprue former

2) Put rubber with jig onto the stage of clamp unit.
Like this.

3) Please check the height of nozzle and sprue is in same level from the side.
Please edit "MOLD POS" if not same.

4) Select a JOB to use from one of JOB LIST window.

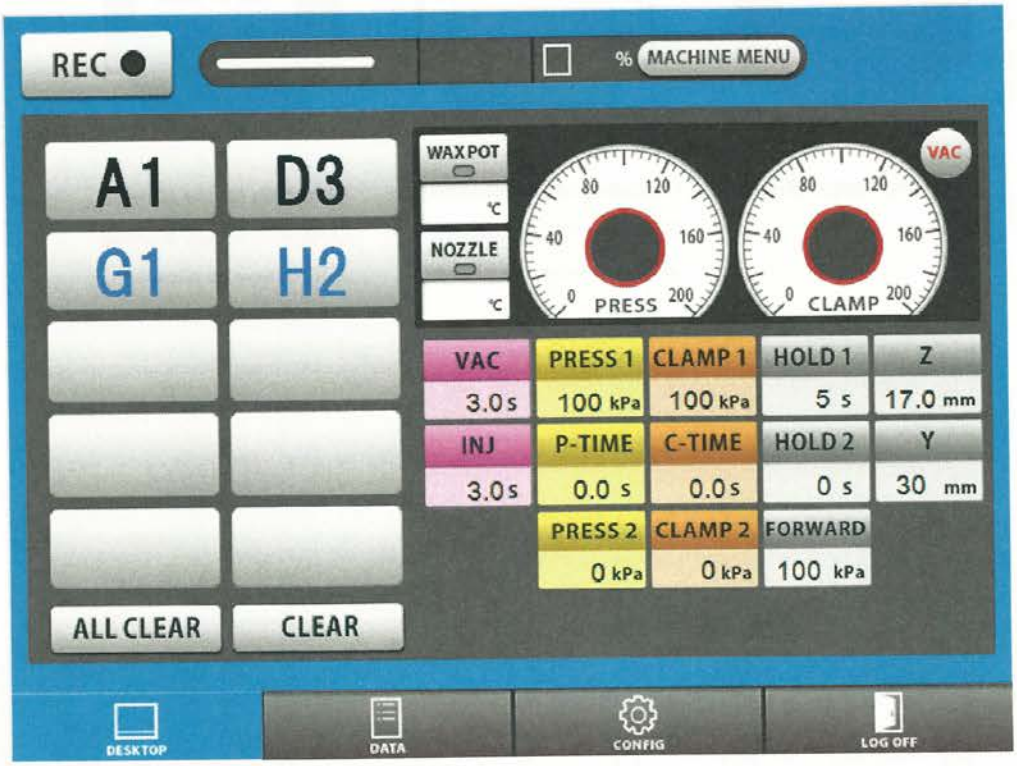
CAUTION

Please do not touch anything around rubber. Pay attention of hot wax.

5. THE CONCEPT OF ALTIMA SYSTEM

5-1 EZ MODE

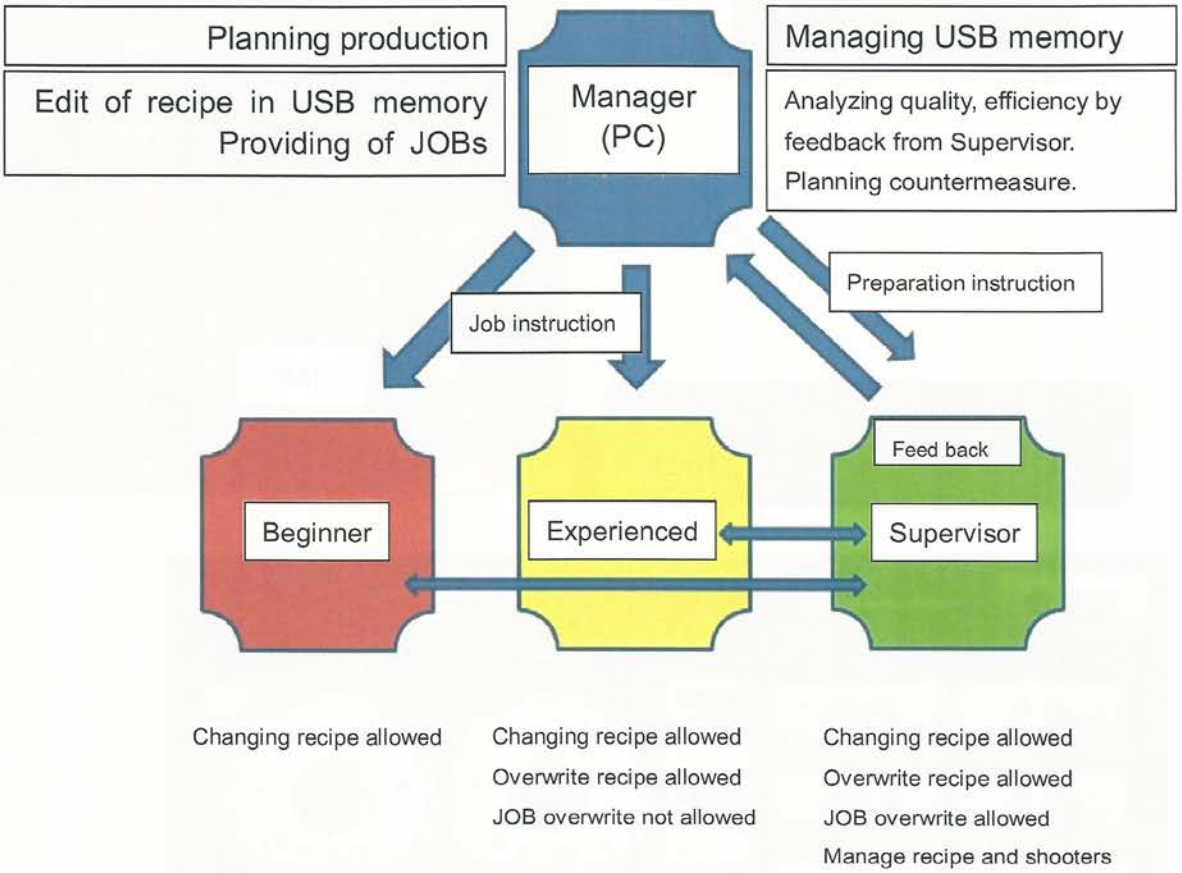
Much improved performance as a stand-alone equipment.



5-2 MEMORY MODE, JOB USB MODE

Industry wax manufacturing as system

The image of ALTIMA system

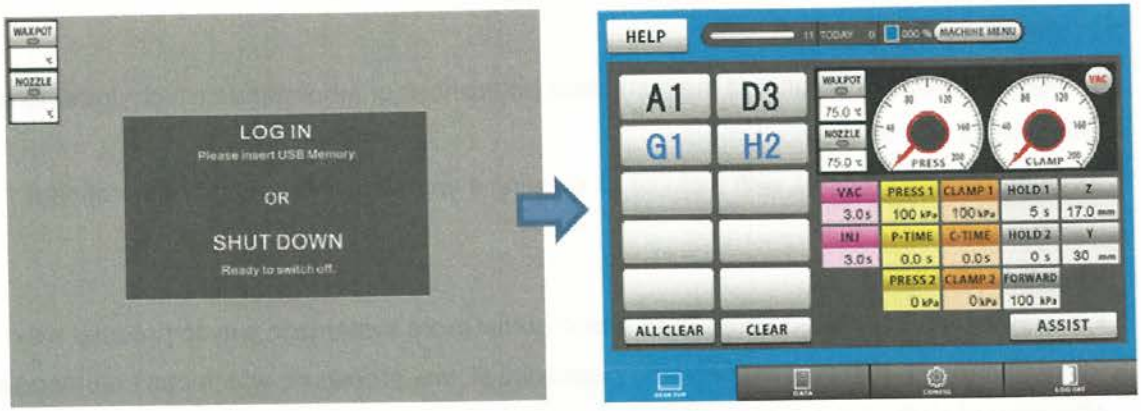


6. OPERATION

6-1. TURNING POWER ON

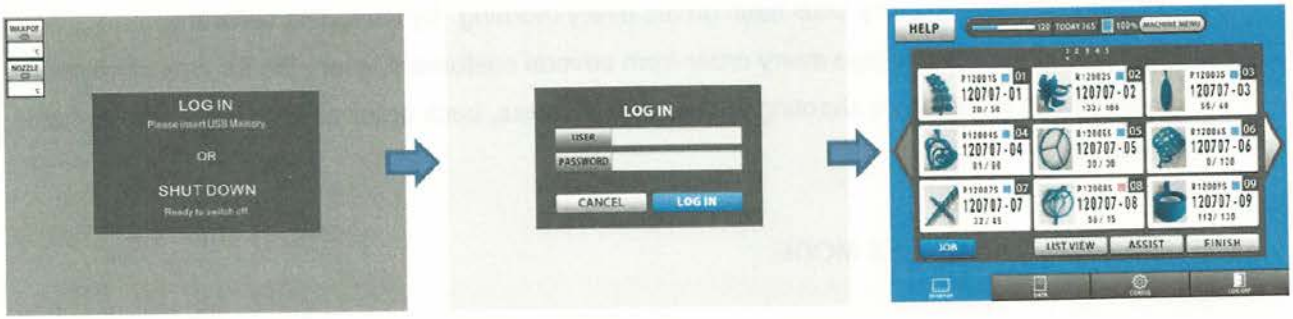
EZ MODE

1) Turn ON the power switch on the right side of ALTIMA.
2) Put User USB flash drive into slot 1 located on the back of control panel.
3) Tap and select any [RECIPE] button you like on Desk Top window.
4) Put rubber mold on acrylic jig to set onto table on Clamp Unit.
5) Push start button.
6) Take rubber mold out from Clamp unit.



MEMORY MODE, JOB USB MODE

1) Turn ON the power switch on the right side of ALTIMA.
2) Put User USB flash drive into slot 1 located on the back of control panel.
3) Check user name is correct (and enter your pass word if registered).
4) Tap and select any [MEMORY] button or [JOB] button you like on Desk Top window.
5) Put rubber mold on acrylic jig to set onto table on Clamp Unit.
6) Push start button.
7) Take rubber mold out from Clamp unit.



7. ABOUT MODE(s)

7-1. TYPES OF [MODE] ON ALTIMA

4 KINDS OF MODEs

ALTIMA has 4 kinds of MODEs.

1) EZ MODE

The easiest operation just like previous injection system of ours with much easier programming of recipes.

Just tap recipe button to shoot. (Max. 12 recipes can be memorized)

2) MEMORY MODE

Designed mainly for small and medium sized enterprises or laboratories which prefer to shoot using same way as previous model.

You can show 90 recipes with pictures or drawing if you want. (no limit on registrations)

3) JOB USB MODE

For medium and big sized enterprises which prefer more systematic way to produce wax.

The concept of [JOB] can expand the possibility of wax procedure which can be managed its efficiency of each shooter, recipe created and improved for each rubber and stored in USB flash drive and even in host PC.

The manager can easily improve the efficiency of wax division by many combinations of USB flash drive, PC and recipe by shooters which make beginner level higher by stored recipe.

4) JOB LAN MODE

For also same kind of enterprises as 3) which does not want to rely on even USB flash drive.

We developed an Application Software which is called [WaxNet] which can manage everything by connecting each ALTIMA and Host PC.

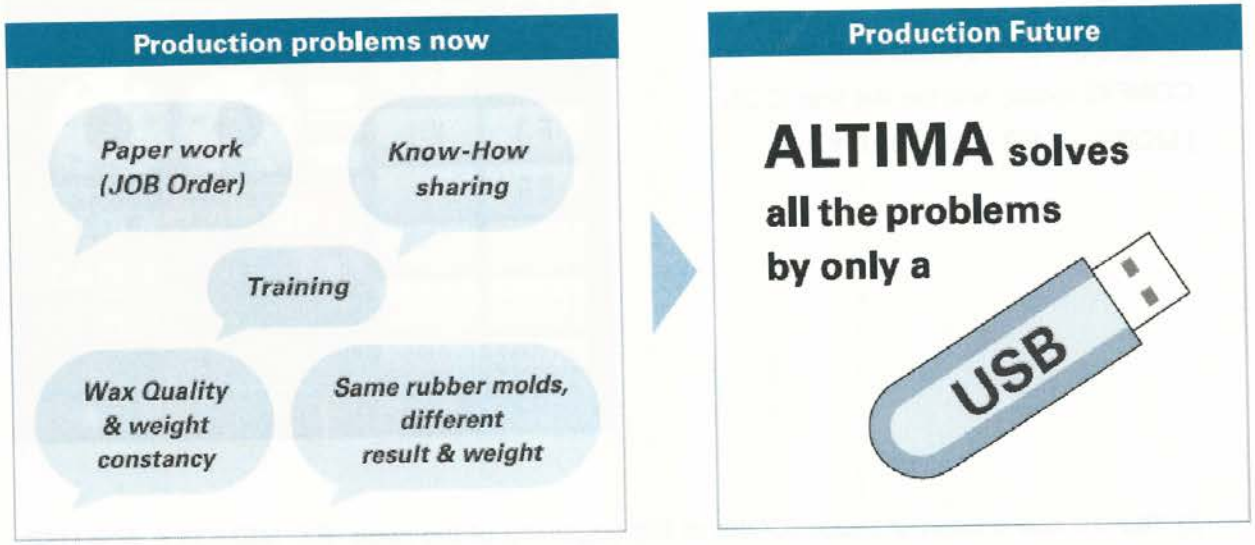
You can automatically provide JOB directly to each shooter through Ethernet.

You will not have to carry USB flash drives every morning by using this software.

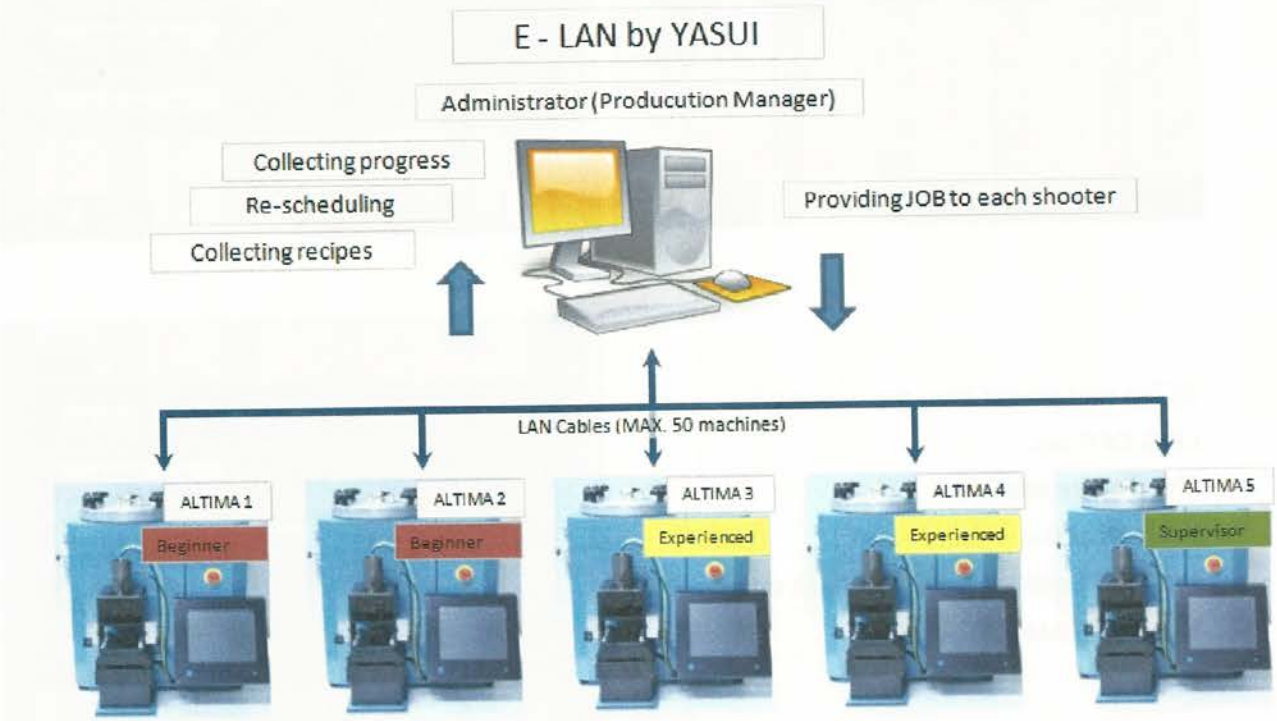
You will be able to manage every order from several customers, every job for wax shooters, every status of the day's shooting job at each shooters, back order of each job... etc. by host computer.

* The default mode is EZ MODE.

The image of JOB USB MODE



The image of JOB LAN MODE



7-2. HOW TO SWITCH MODE

1) Tap [CONFIG] tab to enter CONFIG menu, and tap the first ICON [MODE, USER & SECURITY]

2) You will see 4 kinds of mode ICONs at the beginning of the page, EZ, MEMORY, JOB USB, JOB LAN. Tap and select one of them.

3) Tap and go out from the window by LOG OFF tab.
The display asks you,
[Log off of this system now?]
Tap [OK] and remove USB flash drive to turn ALTIMA power OFF.

4) The MODE has been changed after turning power ON again.

7-3. HOW TO RECOGNIZE THE DIFFERENCE OF EACH MODE

The differences on each Mode as follows;

* Desk top window
The default desk top window is EZ MODE.
You will see recipe memory numbers and recipe area and others on desk top window.
The Desk top of MEMORY MODE is called MEMORY LIST WINDOW; the one for JOB USB MODE is called JOB LIST WINDOW.

EZ mode has most simple visible image.
Other mode has each 9 boxes (memories) with several pages.
Memory mode has 9 boxes, 10 pages, while JOB USB has also 9 boxes, 5 pages.

You can compare the difference of each MODE at next page.

EZ MODE

MEMORY MODE

JOB USB MODE

List window for MEMORY MODE and JOB USB MODE looks like each other.

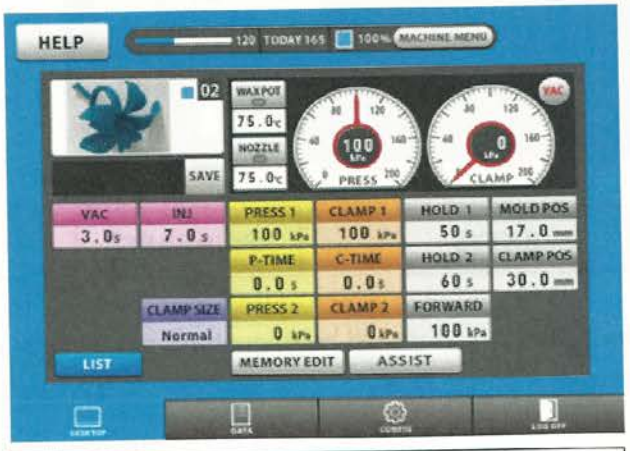
1) Number of RECIPE(The part marked in yellow)
The maximum indicated recipes on MEMORY MODE are 90, 45 on JOB USB MODE (Only for indication, actual maximum registered recipes depends on the capacity of user USB flash drive.
9 boxes x 9 pages for MEMORY MODE, 9 boxes x 5 pages for JOB USB MODE.

2) PAGE COMMENT for MEMORY MODE only (The part marked in blue)

3) LIST VIEW menu for JOB USB MODE only (The part marked in white)

List window at MEMORY MODE (desk top)

JOB LIST window at JOB USB MODE (desk top)



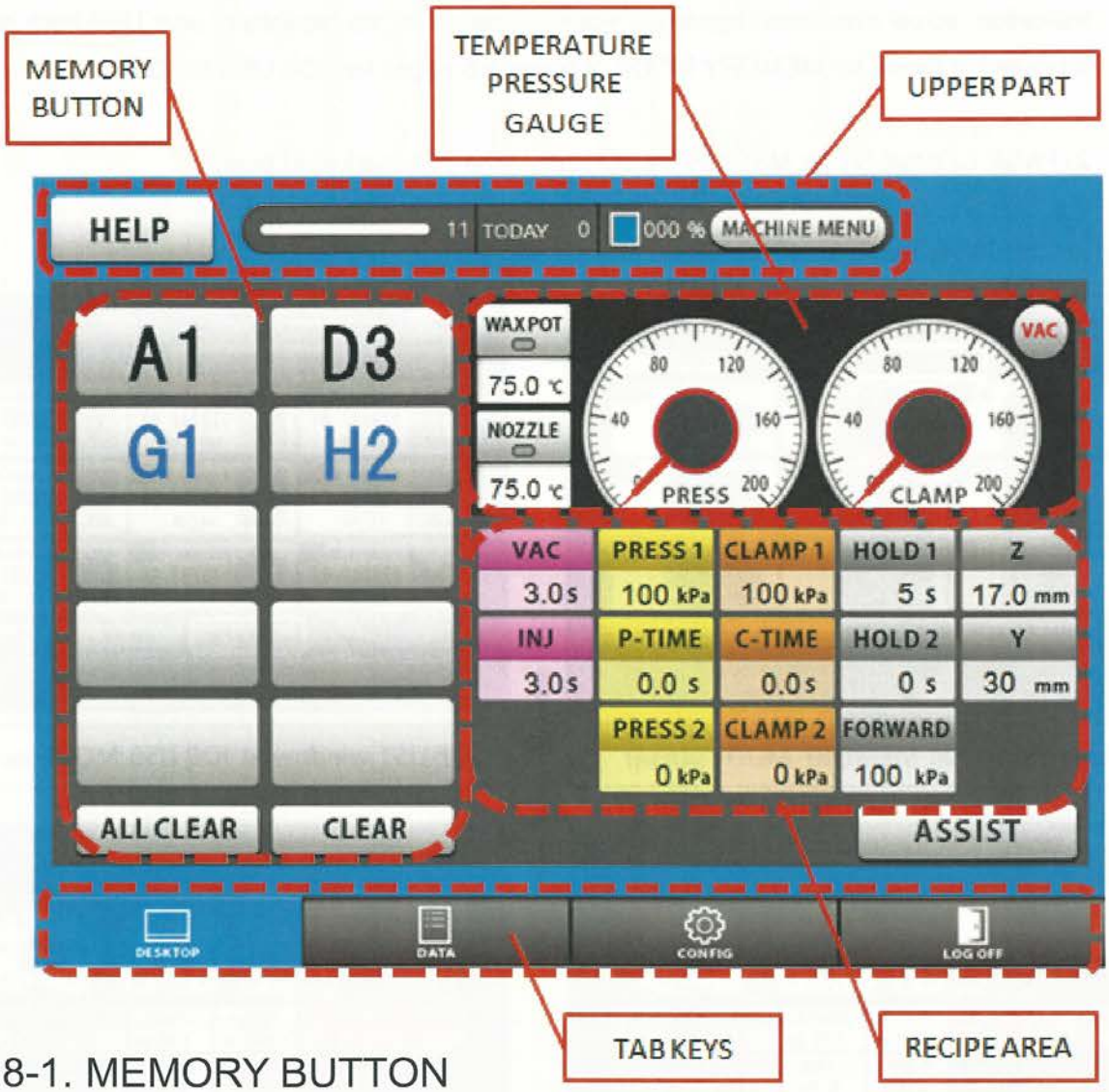
MEMORY window after opening LIST #02

JOB window after opening LIST #02

* The default mode is EZ MODE.
Following each mode detail EZ, MEMORY, JOB USB and JOB LAN MODE.

8. EZ MODE

DISPLAY



8-1. MEMORY BUTTON

Here in this area, maximum 10 memories can be stored which should be enough for each day's job. You can easily select correct recipe for each rubber immediately.

8-2. RECIPE AREA

You can check recipe details here in this area as well as editing.

8-3. TEMPERATURE, PRESSURE GAUGE

You can check wax temperature for pot and nozzle here as well as editing also for pressure.

8-4. UPPER PART

Will be described later.

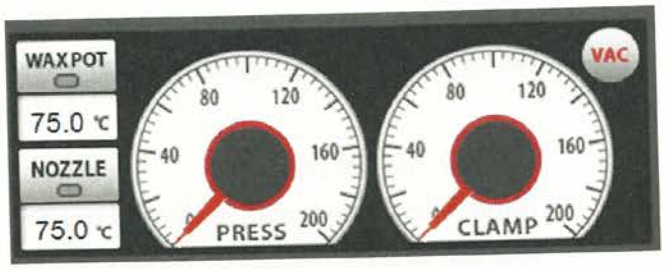
8-5. TAB KEYS

Will be described later.

8-6. TEMPERATURE

8-6-1. HOW TO SET

Temperature settings can be done here.
Temperature button will turn blue if you tap.
Type any number with keyboard shown
at the same time of your tap.
You have range window on the keyboard
which is to avoid entering wrong value.



Tap OK button to enter the value.

8-6-2. PRESSURE GAUGE

There are two pressure gauges on the display.
Wax injection pressure on the left, clamp pressure on the right.
Clamp pressure can be changed to vacuum gauge by

button.

8-6-3. HOW TO EDIT RECIPE

You can edit each recipe at recipe area.
Each description as follows;

- VAC (Vacuum)

Timer setting for vacuum inside of rubber mold.(0-600 [s])

- INJ(Injection)

Timer setting for injecting wax into rubber after VAC. (0-600 [s])

- PRESS 1

Primary injection pressure setting after VAC.

○ PRESS 2, P-TIME

Secondary injection pressure and timer setting after PRESS1 to reduce fins and shrinkage by increasing or decreasing pressure.

○ CLAMP 1

Clamp pressure setting after START switch pushed.

For example big pressure for hard and big rubbers, small pressure for soft and small rubbers.

○ CLAMP 2, C-TIME

Secondary clamp pressure and timer setting after CLAMP 1.

This idea comes from superior know-how by skilled hand shooter who has a tip to reduce shrinkage by loosening hold power by hand while injection.

We've achieved this technique on ALTIMA.

○ HOLD 1(0-600 [s])

Timer for clamping mold at forward position after shooting.

You can avoid shrinkage by no wax flowing out from gate of rubber mold by holding this position.

You will also get stable wax weight by this.

○ HOLD 2

Timer for clamping mold at backward position after shooting.

No need to hold at nozzle when gate become solid and hold 2 is used when you still need cooling down. (0-600 [s])

○ FORWARD Forward pressure of clamp unit.

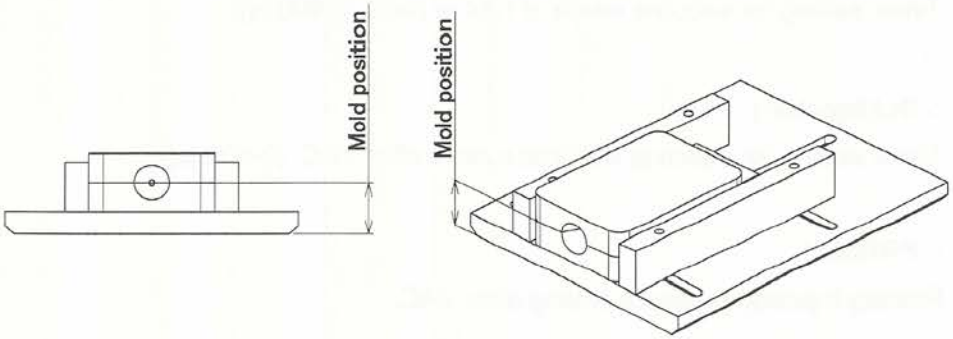
○ Z

This means vertical Mold Position.

We had to adjust the height of rubber by using acrylic jig to get a same vertical position against nozzle every time when you shoot on previous models.

ALTIMA regulates its height automatically like elevator according to your setting in advance.

You can shoot wax with minimum jigs even if you have a lot of rubber sizes.

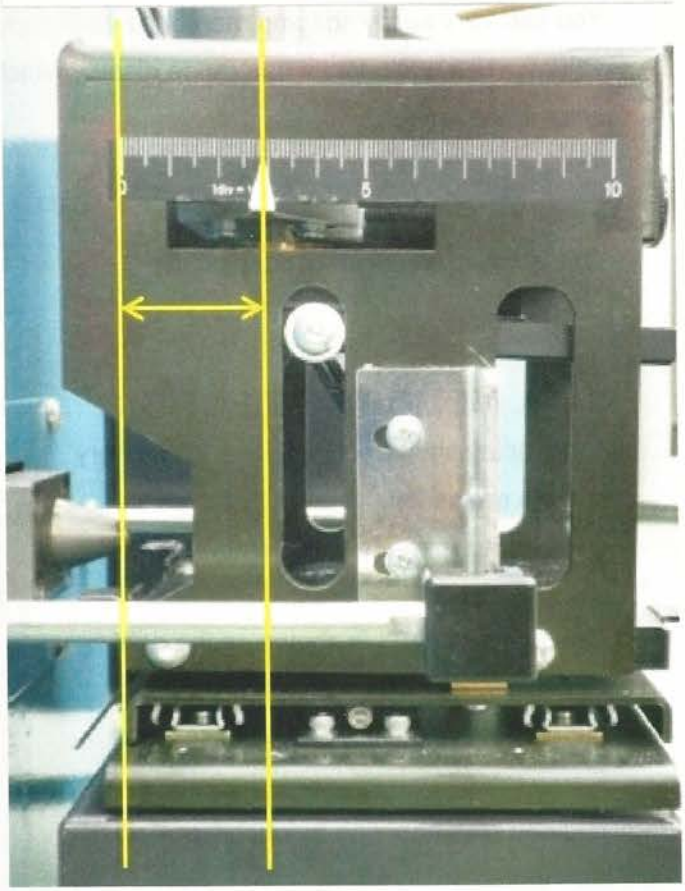


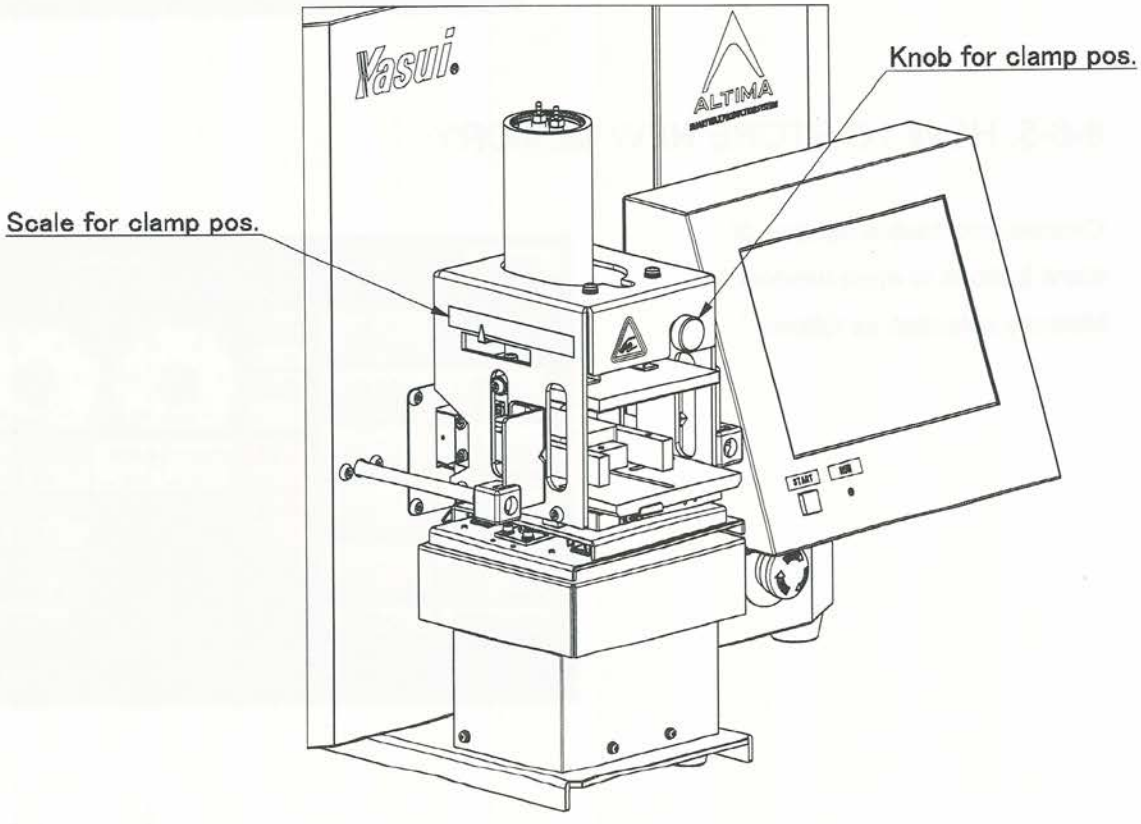
○ Y

This means Clamp Position
(Y direction, front and rear)
When we have vacuum or wax leakage or some poor results on wax, changing pivot point of clamp cylinder is sometimes very effective. We had to adjust the pivot point by adjusting clamp cylinder go or back by loosening crews or knobs on clamp unit which is very annoying and inaccuracy to do.

However you can much easily and quickly adjust its position with high accuracy by one mechanical dial. This is not done by cylinder automatically like Z and you have to adjust by your fingers and the display is only for your record and reminder.

Y : Distance from the end of table
to the center of clamp cylinder (pivot point)





○ When you want to change recipe, just touch the recipe and keyboard will be shown under the display.

You can very easily edit and memorize each recipe. You will not have any mistakes to put wrong values when editing as it has range display which shows acceptable value range to avoid wrong value to be entered.

○ ASSIST

This function will be described later.

8-6-4. MEMORY SELECTION

The display shows us there are 10 Memory buttons on the left.

4 Memories is ready and Memory A1 is chosen now.

Recipe detail of A1 is shown on the right so that you can check or edit to shoot.

Put rubber mold on acrylic jig to set onto Clamp table.

You can start shooting by pushing start button.

8-6-5. HOW TO STORE NEW MEMORY

Choose and double tap one of blank buttons to open window for Memory selection as follows.

Memory buttons remain, recipe area changes as you see on the left.
Upper section is for group (alphabet), lower section for number.
Tap and select each one from the section, tap OK button to confirm.

When you want to select 'E5'for instance,
Tap E and 5to activate them in blue color.
Tap OK button to store as new Memory.
The window will go back to previous window at the same time.

Recipe is always displayed with default values automatically.
Please edit them as you want.

8-6-6. CLEAR MEMORY

There are two buttons, ALL CLEAR and CLEAR just below Memory buttons.

Tap to select one of Memory buttons.

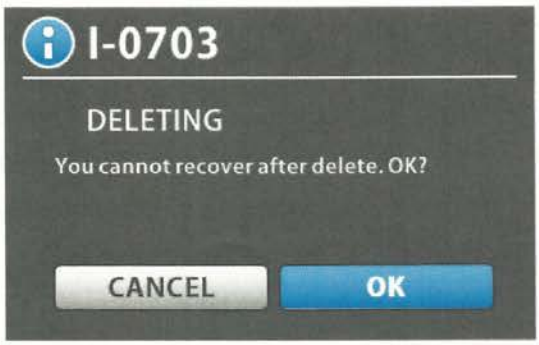
You can delete it by CLEAR button.

ALL CLEAR button is for deleting all Memories at once.

> ⚠ CAUTION
>
> You cannot recover the data once you deleted

You will see the pop up window as shown on the right when you tap CLEAR BUTTON.

Confirm this and tap OK button to complete deleting Memory



8-6-7. GROUP AND NUMBER

As already described before, EZ MODE memory consists of alphabets as Group and Numbers.

You can give them some meaning when naming memory like group A for small rings, group B for big rings, then put numbers from 1for low pressure settings, 2 increasing a bit, etc...

Putting the memory name on to rubber mold with label or writing down.

8-6-8. COLOR MEANING OF LETTERS

Alphabets of Group have two colors, one is black, A to F, another one is blue, G to K.

Group A to F shows recipe window without secondary press and clamp just to simplify the image of the display.

You can choose group G to K for advanced recipe with secondary press for injection and clamp.

Group A (1) with simple recipe

Group G (1) with secondary press

8-6-9. UPPER PART

HELP button TIME bar TODAY WAX MACHINE MENU button

[HELP button] will be described later.

[Time bar] This is a kind of time measure for whole cycle which can check how long it takes.

[TODAY] This is a counter for checking how many shot done.

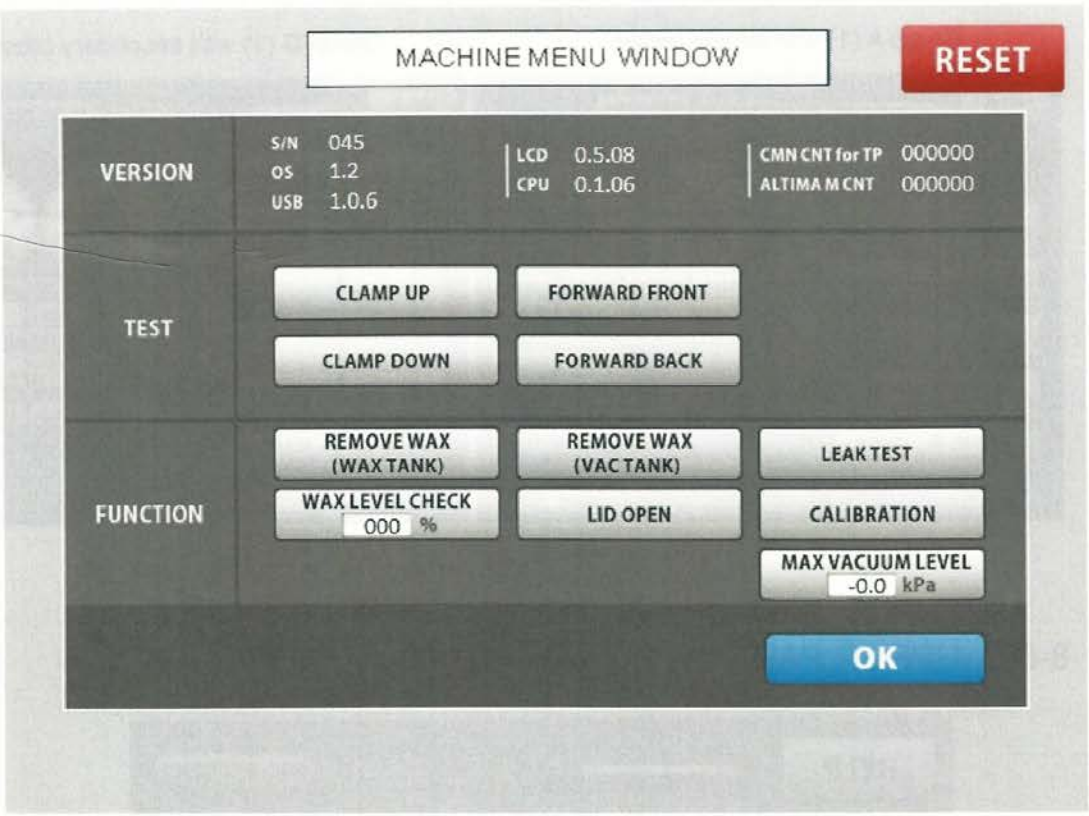
[WAX] You can check which wax is chosen and also the remaining of wax quantity.

[MACHINE MENU]

You can check machine information, independent clamp action and other function like draining wax.

You have to tap this menu to enter the window shown as follows.

(on next page)

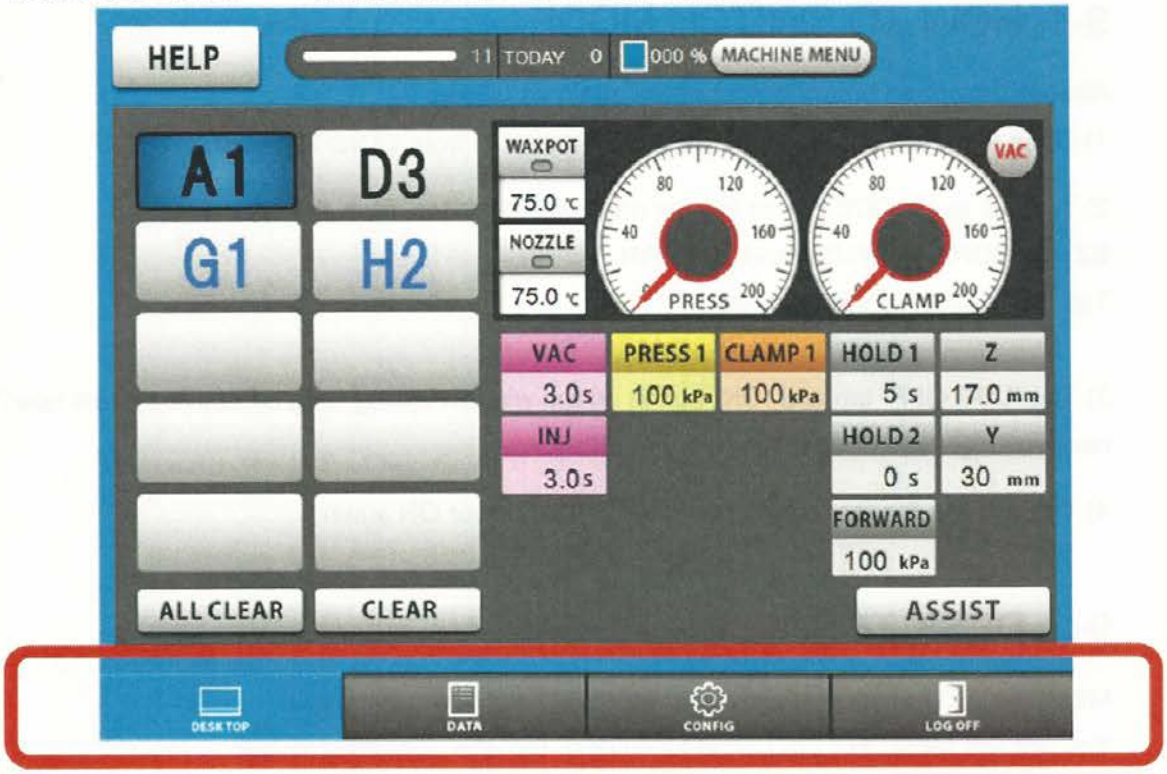


* VERSION	S/N	Serial number
	OS	Operation Software version
	USB	System USB program data version
	LCD	Liquid Crystal Display version.
	CPU	Central Processing Unit version
	CMN CNT for TP	Common control board for touch panel
	ALTIMA CNT	Machine control board version
* TEST	CLAMP UP	Single action for Clamp up
	CLAMP DOWN	Single action for Clamp down
	FORWARD FRONT	Single action for clamp forward
	FORWARD BACK	Single action for clamp backward
* FUNCTION	REMOVE WAX (WAX TANK)	Wax tank drain
	REMOVE WAX (VAC TANK)	Vacuum tank drain
	LEAK TEST	LEAK detection test
	WAX LEVEL CHECK	Detection wax amount in wax tank
	LID OPEN	Reset tank pressure to open lid
	CALIBRATION	Reset atmospheric pressure
	MAX VACUUM LEVEL	Detection present vacuum level

* Please be careful not to forget to removing forward cylinder shafts from clamp unit and vacuum pump switch ON.

8-6-10. TAB KEYS

4 KINDS OF TABs ALTIMA Desk Top Window consists of 4 kinds of tabs.



You see [Desk Top] tab is chosen now on the picture

8-6-11. DESK TOP TAB

Usual default operation window after turning power ON.

8-6-12. DATA TAB

It has four kinds of functions; EDIT, COPY, DELETE and FORMAT.

The detailed information will be introduced later.

8-6-13. CONFIG TAB

Several kinds of configuration can be done here in this tab.

Some of them are not shown on the display depending on User Level.

The detailed information will be introduced later.

8-6-14. LOG OFF TAB

You have to enter this tub when you want to turn off ALTIMA or replace USB flash drive.

You will see the message “Log off of this system now?” when you tap this tab.

Please tap OK for log off or CANCEL if not.

9. MEMORY MODE

9-1. HOW TO SWITCH MODE

Already described before but repeated again as follows ;

1) Open the first icon "MODE, USER & SECURITY" from CONFIG menu.

2) You will see MODE line on top the page with 4 modes, from the left :
EZ, MEMORY, JOB USB and JOB LAN.
Tap "MEMORY" to switch mode.

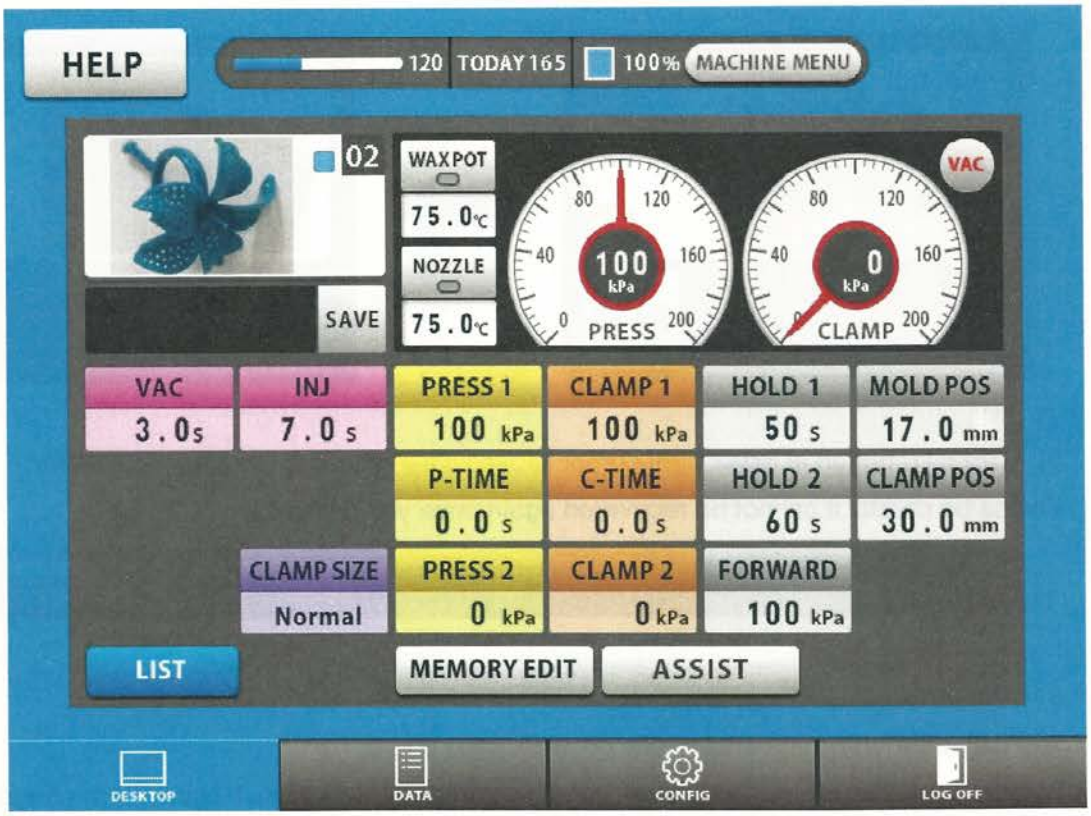
3) Tap "LOG OFF" tab and "OK" button on the window asking "Log off of this system now?" and remove USB flash drive to turn power OFF.

4) You will see the mode switched after turning power ON again.

9-2. DESK TOP

MEMORY LIST window (below) and MEMORY window (next page)
You will see MEMORY LIST window on desk top after switching MODE.
The next picture is MEMORY window which shows detail of Memory 02.

MEMORY LIST window



MEMORY window (detailed window)

9-2-1. DESK TOP (MEMORY LIST WINDOW)

1) As described already before, Memory list numbers from 01 to 09 is displayed on desk top . The small numbers and dot below means total 9 pages and page 0 is selected now.

2) MEMORY window (lower picture on previous page) will be opened if you double tap one of the lists and the recipe shown can be edited and saved.

You can edit recipe like this ; tap each recipe directly, key board and up / down key appears on lower area of the window to edit.

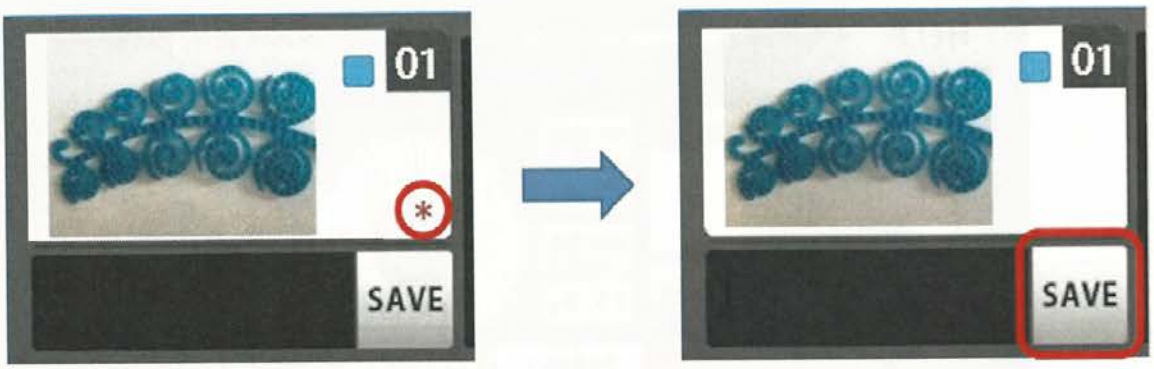
It has range window which guides correct range to avoid mistake when editing.

You have another way to switch windows by tapping blue color button located lower left corner.

3) You have 10 pages for this mode which means max. 90 memories can be shown.

4) You will see red colored asterisk at lower right corner on JOB window, it means some of the recipes have been edited.

You can overwrite the recipe by tapping "SAVE" button just below asterisk.



5) DELETE button at lower right corner is used when you want to erase MEMORY.
Please be careful it cannot be recovered again once you deleted.

6) PAGE COMMENT window.
You can enter any comments or title on each page 0 to 9.
For instance; Page 0 for small rings, page1 for medium sized ring, Page 3 for big rings... etc.

9-2-2. DETAILS (MEMORY WINDOW)

1) You can check and edit RECIPE detail at MEMORY window if you double tap one of MEMORY lists on desk top.

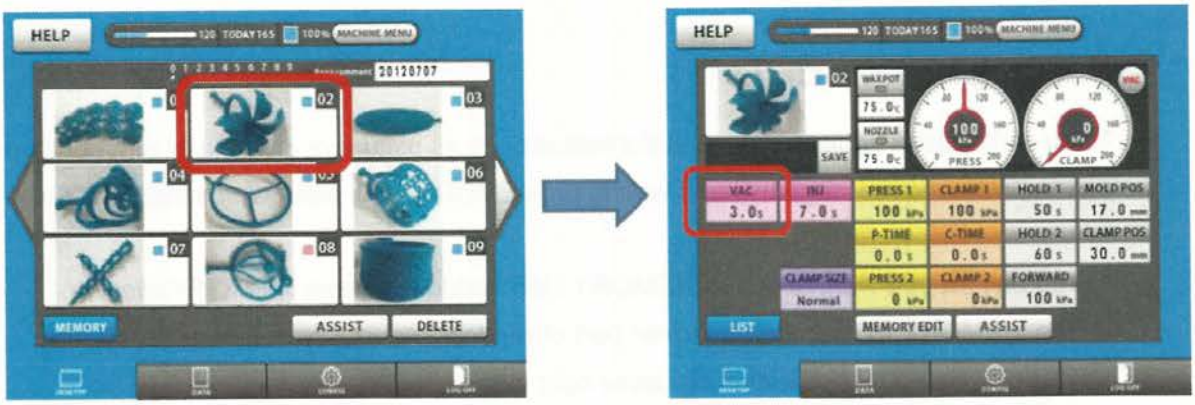
2) MEMORY EDIT
You will see MEMORY EDIT window which is very simplified window of MEMORY window just for importing picture.
Recipes cannot be edited on this window.

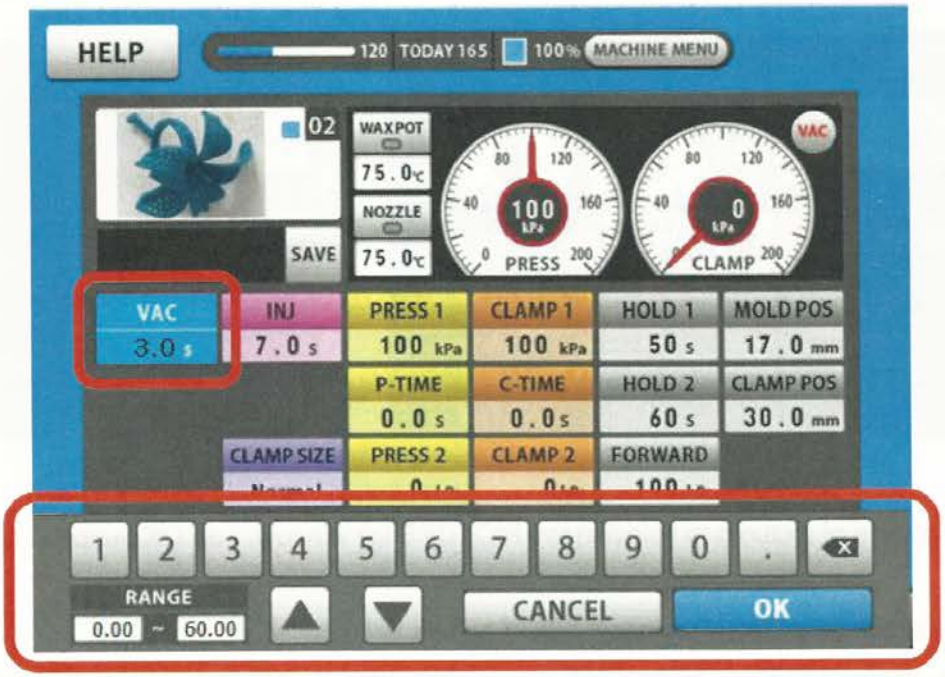
9-3. HOW TO EDIT AND STORE RECIPE

1) Double tap any list number you want to edit at MEMORY LIST window to open MEMORY window.

2) Tap any button you want to edit here in this window.

The button will turn blue when you tap and keyboard will be shown at the same time.





- VAC (Vacuum time)
- INJ (Injection time)
- PRESS 1 (Primary pressure)
- PRESS 2、P-TIME (Secondary pressure, delay timer)
- CLAMP 1 (Primary clamp pressure)
- CLAMP 2、C-TIME (secondary clamp pressure, delay timer)
- HOLD 1 (Primary holding time)
- HOLD 2 (Secondary holding time)
- FORWARD (Forward pressure)

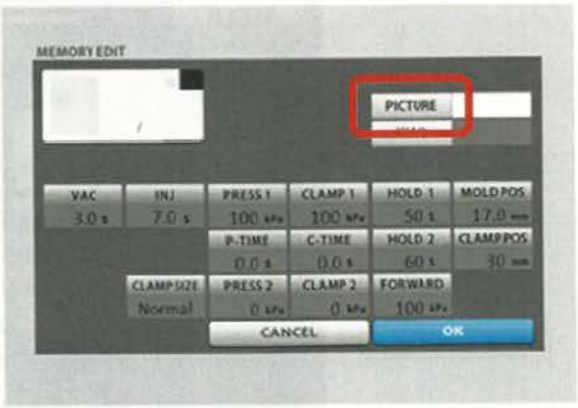
- MOLD POSITION (Z :Vertical position)
- CLAMP POSITION (Y :Position back and forth)

Those are the recipe already described at EZ MODE.
The last two recipe, Z and Y are changed the name to MOLD POS、CLAMP POS in other mode.
Also special button for clamp size selection will be added on the area.

9-4. MEMORY EDIT

* You can register additional recipe information such as picture or drawing of rubber or wax pattern, scanned message by hand writing on MEMORY LIST window and MEMORY window

1) Tap any list you want to edit in MEMORY LIST window to open MEMORY window.
2) Tap MEMORY EDIT button on lower part of window.
3) You will see PICTURE button on upper right corner.



4) Tap one of pictures to select in the PICTURE list window, Tap OK button to confirm.

5) Go back to MEMORY window by OK button.
*You cannot edit RECIPE in MEMORY EDIT window. You have to go back for RECIPE edit.
*You will see only one picture name in the list when you want to edit a MEMORY registered already with picture.

You have to erase the name by backspace button and type another name if you want to replace picture.
You can call lists by only typing a few letters for candidates.

Preparing method of picture will be described later.

9-5. DELETE MEMORY

DELETE button at lower right corner is used when you want to erase MEMORY. Please be careful it cannot be recovered again once you deleted.

You will see the pop up window as above. Tap OK to delete.

9-6. TAB KEY

Already described at EZ MODE

9-7. UPPER PART

Already described at EZ MODE

9-8. ASSIST BUTTON

Will be described later.

10. JOB USB MODE

10-1. The difference from MEMORY MODE

EZ MODE and MEMORY MODE is for small scaled workshops which require very simple operation for wax shooting, while this mode is for medium and big sized enterprises which prefer more systematic way to produce wax.

The concept of [JOB] can expand the possibility of wax procedure which can be managed its efficiency of each shooter, recipe created and improved for each rubber and stored in USB flash drive and even in host PC.

The manager can easily improve the efficiency of wax division by many combinations of USB flash drive, PC and recipe by shooters which make beginner level higher by stored recipe.

10-2. DESK TOP

1) There are 9 JOBs, 5 pages on DESK TOP.

You can turn the pages by arrows on both side of the page.(Initial window for desk top can be changed to JOB window from CONFIG tab which will be described at Chapter 17-1 MODE, USER & SECURITY)

2) You will see the detail of the job list (picture on the right) when you double tap one of job list (picture on the left)

JOB LIST WINDOW

JOB WINDOW

Here in the detail of job display, you will see a wax shooting recipe which is already described before.

There is a small window called JOB box at left upper corner in JOB WINDOW (window on the right), Wax pot and nozzle temperature monitor and edit in the middle, two gauges for injection

pressure and clamp pressure.
Clamp gauge can be switched to vacuum gauge by tapping small button on right upper corner of the window.

You can start injection by start button after tapping one of recipes if you don't need to edit present setting

10-3. UPPER PART

Already described before

10-4. PART IN MIDDLE

Already described before

10-5. LOWER PART

[Switch window], [LIST VIEW], [ASSIST], [FINISH]

[Switch window]
You can switch window from JOB LIST window to JOB window by this button instead of double tapping on JOB BOX.
Opposite switching from JOB window to JOB LIST window also can be done by this button.

[LIST VIEW]
This is a short cut key to JOB LIST window in CONFIG tab.
Please be careful this JOB list is for configuration and not same as JOB LIST on Desk Top.
You already know how each window looks like;
JOB LIST on desk top: 45 JOBs are divided 5 pages with 9 JOB BOX.
JOB LIST on CONFIG tab: 45 JOBs is listed in one page for easier editing.

[FINISH / RESUME]
ALTIMA takes the JOB is finished when you tap this key.
The JOB is transferred at the end of job list.
At the same time the [FINISH] button is replaced by [RESUME]

Letters and numbers on the job turns in red color until erased or tapped again.
No action will be done by start switch after [FINISH] button tapped.
The JOB will come back to JOB number 01 on Page 1. when you tap [RESUME] button.
This function is very useful when you manage JOBs on ALTIMA.
For instance it takes time when you want to select JOB number 23 on page 3 and go back to some other JOB on page 1.
However you can move JOB 23 by tapping it to first page which erases your frustration.
Also you can move any JOBs as you like by using this function.

11. REGISTRATION AND EDIT OF JOB

11-1. GENERAL IDEA OF JOB AND RECIPE

The manager usually provides shooters the day's jobs every morning in jewelry manufacturing. ALTIMA can accept those jobs with shooting parameter (recipe) from manager through User USB flash drive.

This system which can provide jobs as work instructions to shooters is very useful for both managers and shooters.

JOB means ORDERS from customers and kind of work instructions.

For instance, JOB BOX 01 mentioned at page 46, the box is divided in two parts.

You can see a picture on the left, letters and numbers on the right.

The right side has 4 rows ;

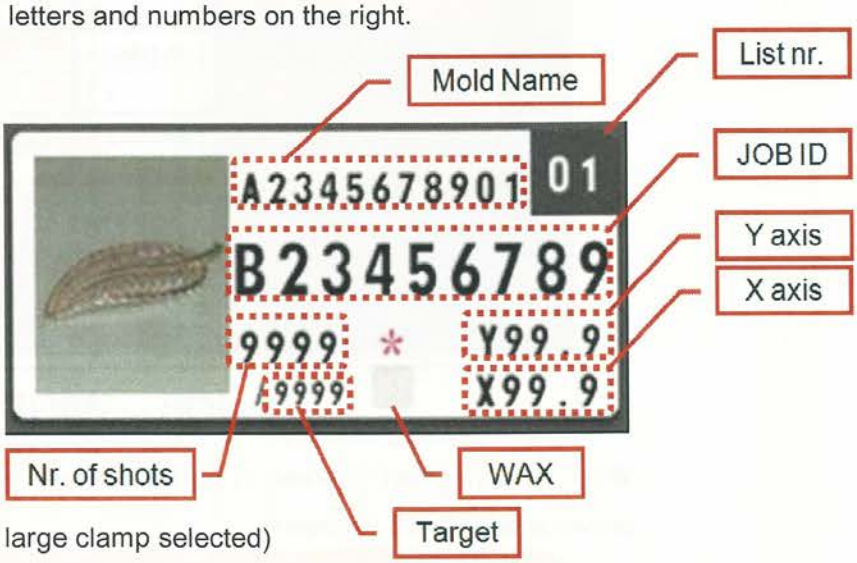
【MOLD NAME】and List number on the first line,

【JOB ID】 on the second line,

【Number of shots】【TARGET】 on lower part.

* (already described at MEMORY MODE) and WAX colour are shown in the middle.

Y axis and X axis (X : only when large clamp selected)



Those are called 【JOB】on ALTIMA.

You will see the details of this job including shooting parameters which is called 【RECIPE】when you double tap this BOX.

In conclusion, JOB is work instruction kept in USB flash drive including RECIPE to know every information like ;

Which job (JOB ID), How (RECIPE), using which rubber (MOLD NAME) and How many (TARGET、PV/SV) pieces of wax.

You can also recognize the design (PICTURE) of the wax visually and which wax should be used (WAX) by the display.

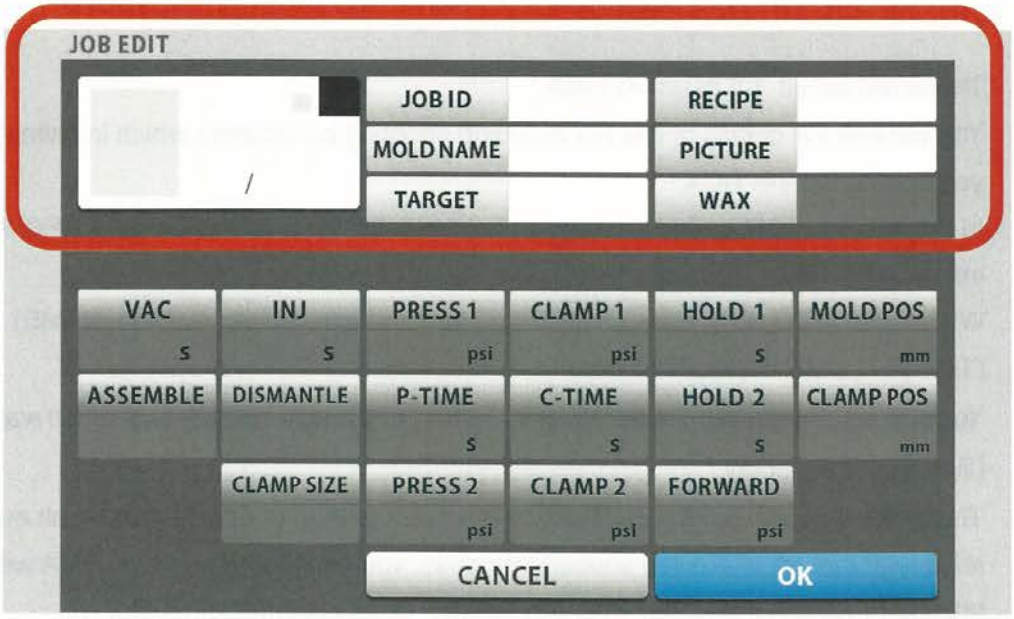
This is the first occurrence to introduce the IDEA of JOB to this market which must be very advanced tool for improving shooting process. You can also operate ALTIMA with EZ MODE or MEMORY MODE if you feel JOB USB MODE is very difficult to master.

11-2. HOW TO REGISTER JOB(1)

Open JOB EDIT window by tapping JOB EDIT button located on lower level on JOB window when you want to register new job or edit jobs.

JOB WINDOW

Work on upper part (marked in red), lower part is recipe which only can be edited on previous page (JOB window)



1) Tap RECIPE button on right upper corner when you want to register new JOB.

2) The display changes to [RECIPE SERCH] window which shows already registered existing

job list.

3) Tap any recipe to edit and the list frame changes in red color. Tap OK button to confirm.

4) Then the window goes back to JOB EDIT window with the recipe name chosen also with JOB ID and MOLD NAME which belong to the recipe automatically.

5) Tap OK button to return JOB window with copied JOB.

6) Edit the JOB as this is a copy. Enter TARGET as well as JOB ID and MOLD NAME.

7) Enter JOB EDIT window to edit JOB ID.

8) Tap JOB ID button.

9) Text box and key board appear to edit JOB ID.

10) Then tap MOLD NAME button to edit.

11) Enter TARGET as well.

12) Tap PICTURE button if you want. (PICTURE button→ RECIPE SERCH window →select a picture from the list.)

13) Edit RECIPE if you want and tap SAVE button located lower part in JOB BOX.

11-3. HOW TO REGISTER JOB(2)

1) Tap CONFIG tab to enter and tap JOB LIST icon.

2) Select and tap any JOB in the list to change the list frame in red color. Tap OK button to confirm.

3) Tap any recipe to edit and the list frame changes in red color. Tap OK button to confirm.

4) Tap COPY button and a copy of the JOB is listed at the end.

5) Go back to DESK TOP by BACK button.

You will find new JOB at the end of list as well as on desk top.

Double tap the JOB to edit and overwrite by SAVE button.

11-4. HOW TO REGISTER JOB(3)

How to register completely new JOB without copying other JOB.

1) ENTER CONFIG window and tap JOB LIST icon.

2) Tap an empty JOB in the LIST at the end. The list frame changes in red color.

Tap EDIT button to confirm to open JOB EDIT window.

Register each JOB as well from RECIPE after that.

HOW TO REGISTER JOB(Exception)

You can go forward by only registering JOB ID and MOLD NAME if you feel it bothersome and want to start shooting very quickly.

11-5. HOW TO REGISTER PICTURES AND IMAGES

You can register pictures and images in each JOB on ALTIMA. (Available files : jpg, jpeg or png format)

It would be a great help for shooters to understand JOB as you can register local words as images as well as pictures which let them understand the meaning JOB in local language even if they do not understand English or other language in ALTIMA.

1) Log off and remove User USB flash drive from controller.

2) Select one of pictures or images in your PC and re-size it with the size 70*86 pixels. Save the file with any name you want. (for JOB USB mode) Be careful if you name with the language except for English, ALTIMA recognize it only as ?????. For Memory mode pictures, re-size it with the size 136*102 with any name of numbers using only 01-99.

3) Put User USB flash drive into the slot of your PC, Open it, open [recipe] folder, then [USB] folder. Put the re-sized file on it.

4) Close the folder to remove from your PC and put it into slot 1 on the controller.

5) Select new line on the JOB LIST and open JOB EDIT window.

6) Tap PICTURE button on the right upper corner to open picture search window.

Tap any picture you want and OK button to import.

7) Also import other JOB according to the instruction as above. (5-2)

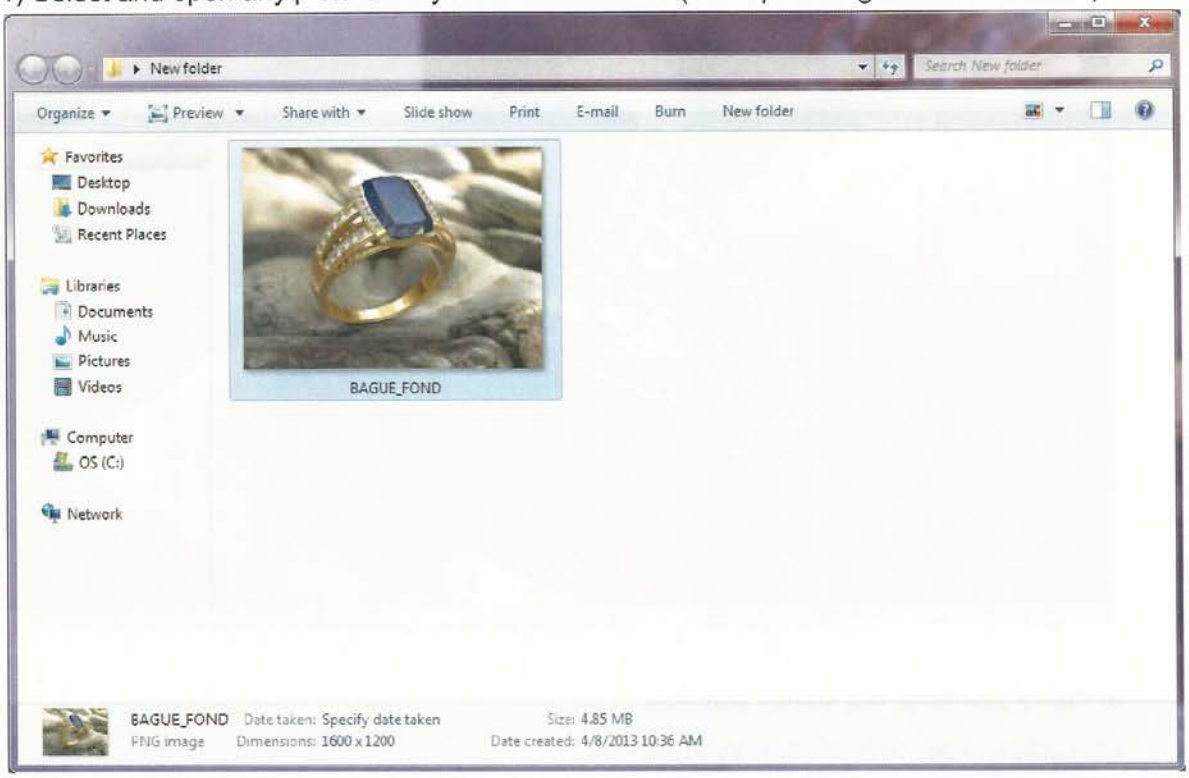
* "Common control board for touch panel" can freeze its total function when you try to register big sized images.

Please register with correct file size after re-sizing them following the instruction in next page.

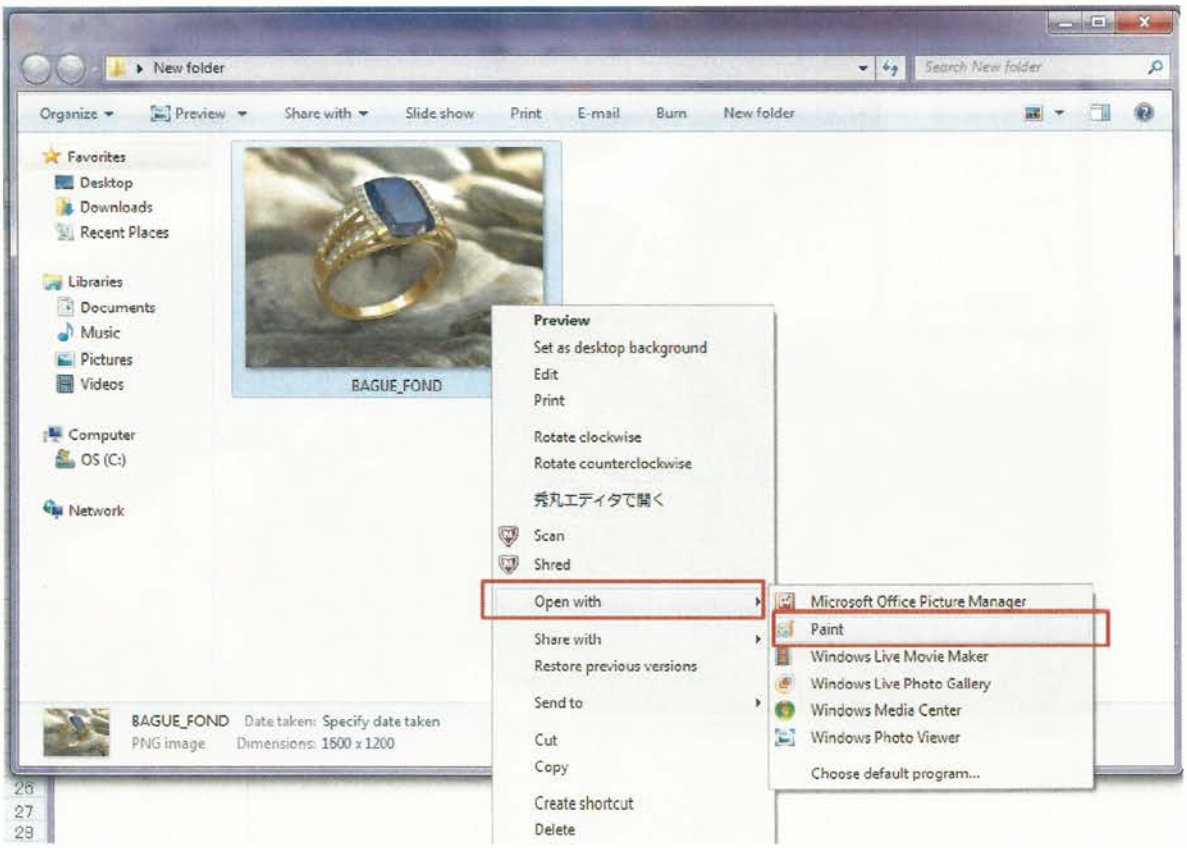
11-6. HOW TO RE-SIZE PICTURES AND IMAGES, OTHERS

This is detailed information how to re-size the data in your PC.

1) Select and open any picture file you want to re-size. (Example using "Microsoft Paint ")

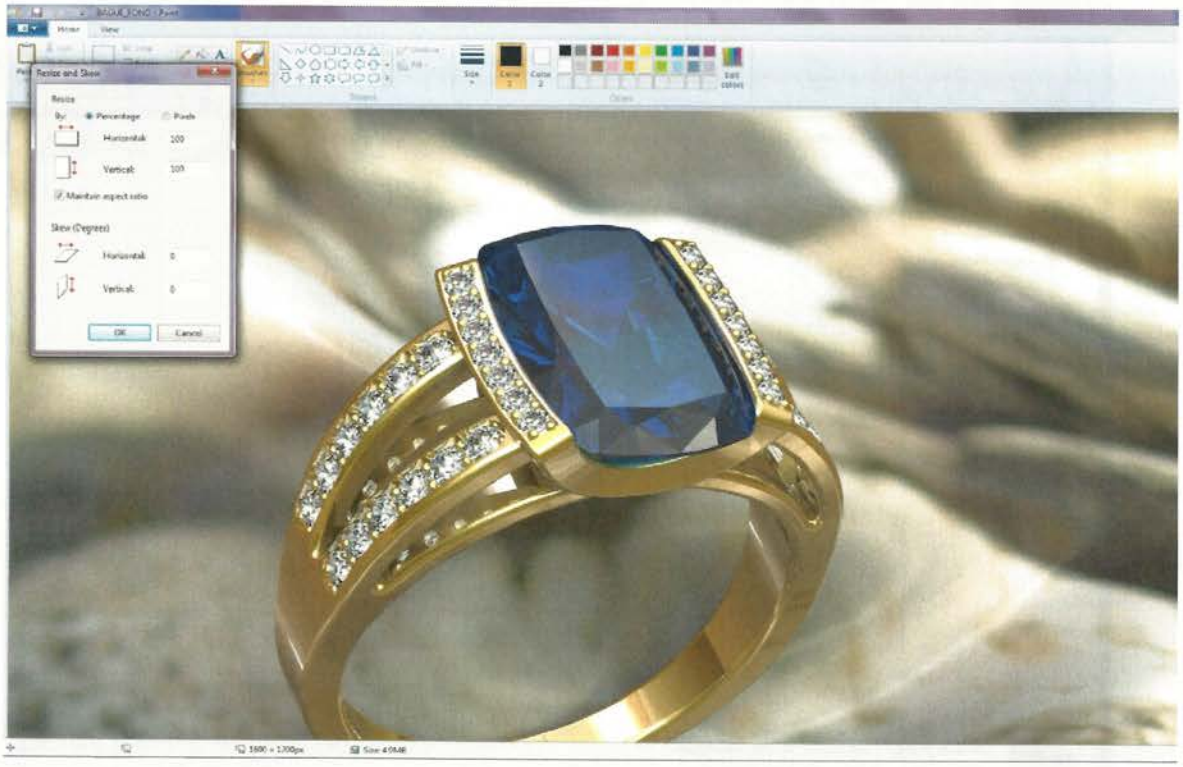


2) Right click the file to open with Paint

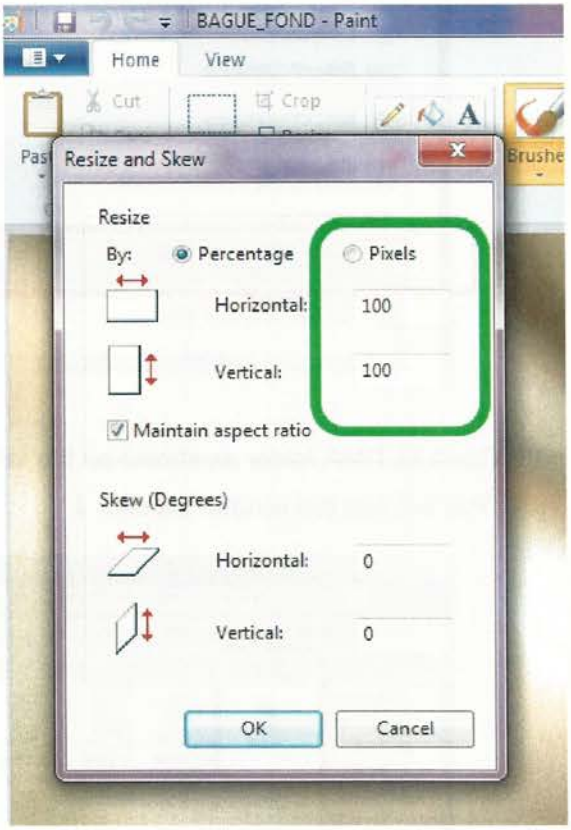


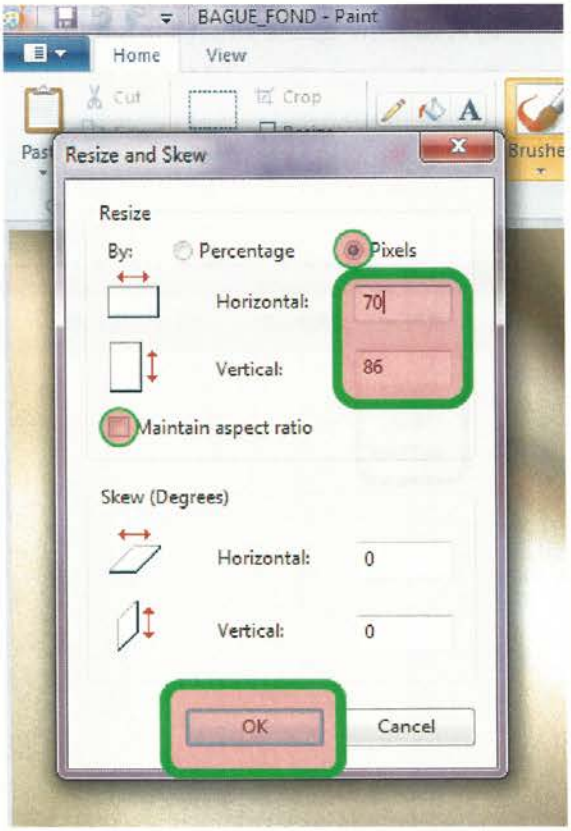
3) Click “Re-size” button.

4) Fill 70 and 86 in the blanks and click
OK button. (136, 102 for Memory mode)

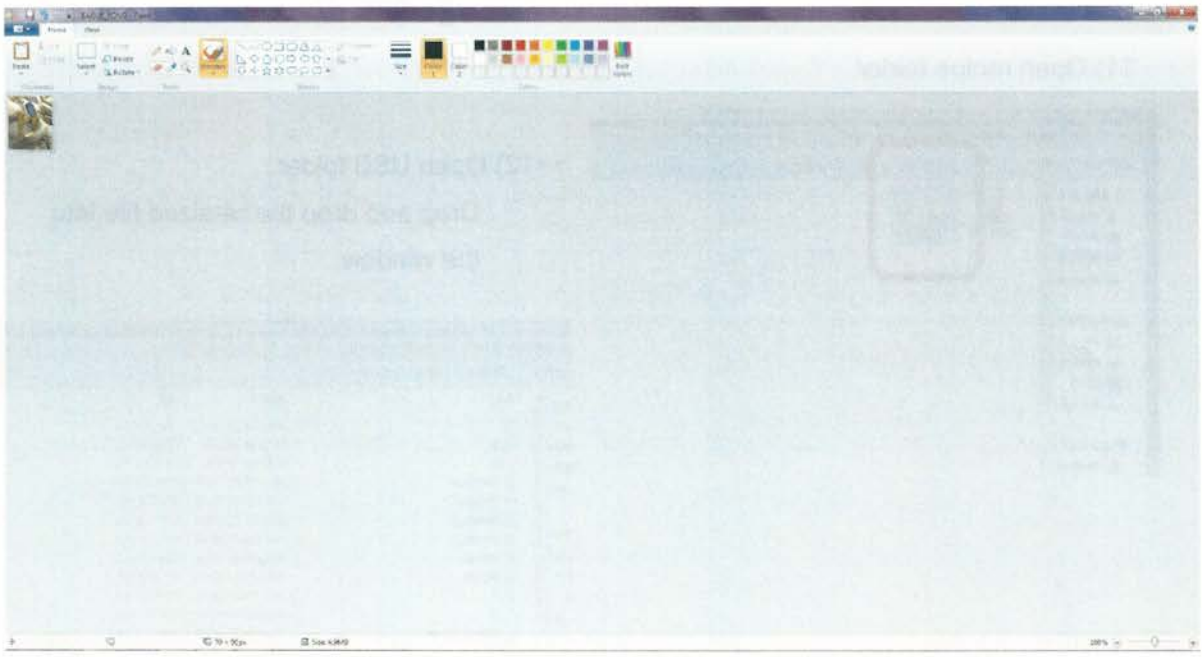


Choose which way to resize from 'Percentage' to 'Pixels', remove check mark from 'Maintain aspect ratio' then put new pixel size 70*86.





6) Close the file after over-writing.



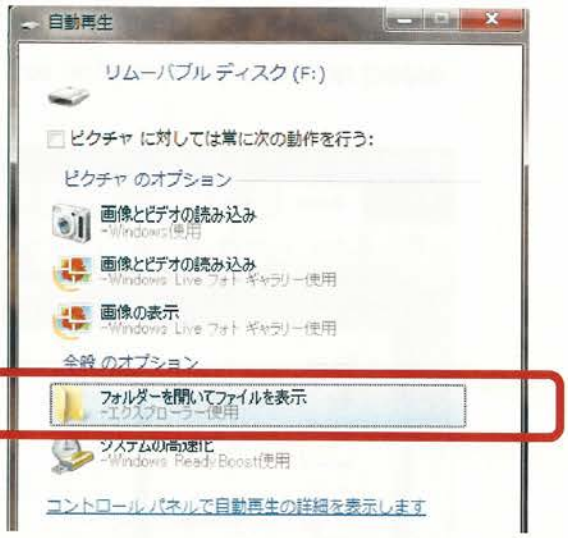
7) This is the end of re-size.

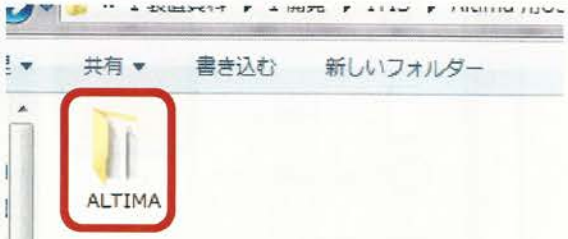
※ You can also re-size on Microsoft Office Picture Manager.

※ Both are example on office 2007.

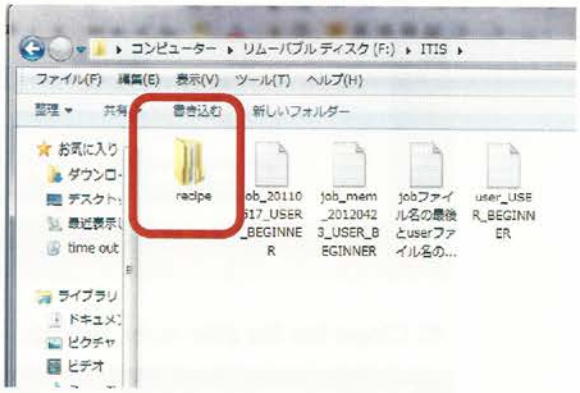
8) Connect the USB flash drive from ALTIMA to your PC.

9) A window opens when it is set Auto run. → Open the icon “Open folder” to see files

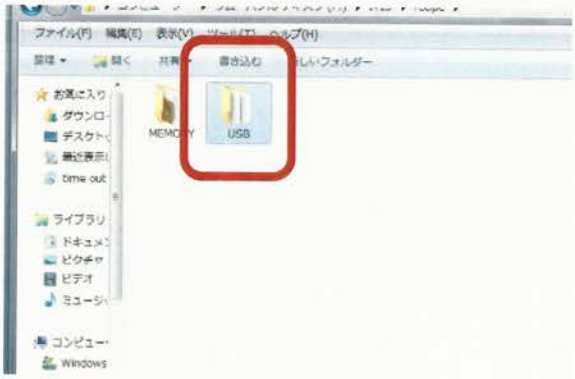




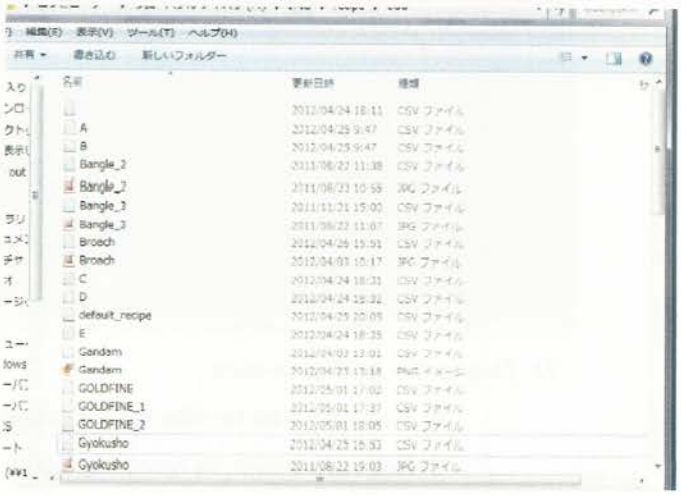
→10) Open ALTIMA folder as shown on the left.
You will see the window below. ↓



11) Open recipe folder.



→12) Open USB folder.
Drag and drop the re-sized file into the window



13) Close the window to remove the USB flash drive. Return it to slot 1 on ALTIMA.

14) The instruction 11-2 How to register JOB is repeated again as follows;

- Tap CONFIG tab on Desk top to open JOB LIST.
- Tap an empty JOB in the LIST at the end. The list frame changes in red color. Tap EDIT button to confirm to open JOB EDIT window.
- Tap PICTURE button to open RECIPE SERCH window to select picture.
- The list frame changes in red color. Tap OK button to confirm.
- You will go back to JOB EDIT window with the picture imported on left upper corner.
- Edit JOB if necessary and tap OK button to return JOB LIST window. Tap DEST TOP tab to go back and you will see competed job box with the picture.

This is a procedure to import picture on JOB USB MODE.

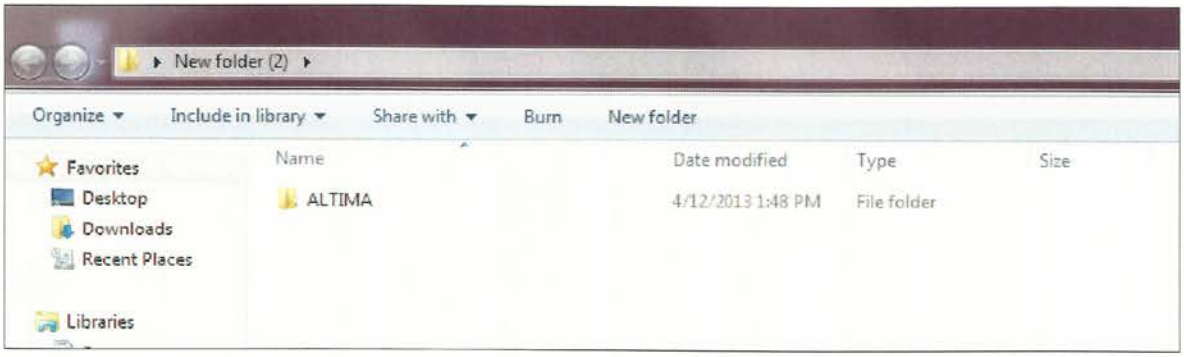
You can do as well on MEMORY MODE just to drag and drop the picture into MEMORY folder instead of USB folder.

12. FOR ADMINISTRATORS: How to manage FILES TO PROVIDE JOBs

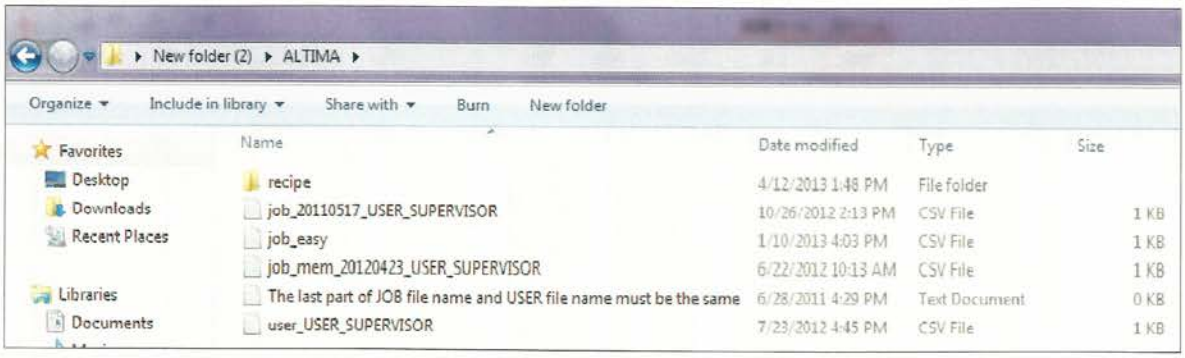
12-1. FOLDER STRUCTURE

The Administrator's (manager) position is very important at JOB USB MODE.
The reason is he can collect and refer much more information from record in USB flash drive for improving shooting skills for everybody. This instruction helps you to know how to manage and provide JOB actually using PC (personal computer).
First of all, please understand what is included in USB flash drive for SUPERVISOR.

1) Put USB MEMORY for SUPERVISOR in USB slot of your PC.
2) You will see the window opened if Auto- run is set. Then open it to see the window as below. If not, click removable disk at (My) Computer.



3) Then you will see the window as below which includes one folder named "recipe" and 5 files after you open ALTIMA folder.



From the top;

• recipe folder

You will see 2 folders if you open it. These are rooms for recipe files and pictures.

• JOB file; job_20110517_USER_SUPERVISOR

This is a CSV (Tab-Separated Values) format file which has a basic data to show recipe at JOB USB MODE on ALTIMA desk top. The data edited on ALTIMA is stored in the USER USB flash drive which can be shown at your PC also. While, the data edited on your PC is also stored in the USER USB flash drive which can be shown at ALTIMA.

You must install special application software called "CSV editor" to open this file.

You can down lord as free-ware or share ware from several internet website pages.

(We will include ours in attached USB flash drive at present)

• JOB file: job_easy

This is also a CSV format file which has a basic data to show recipe at EZ MODE on ALTIMA desk top.

• JOB file: job_mem_20120423_USER_SUPERVISOR

This is a CSV format file which has a basic data to show recipe at MEMORY MODE on ALTIMA desk top. The data edited on ALTIMA is stored in the USER USB flash drive which can be seen at your PC also. While, the data edited on your PC is also stored in the USER USB flash drive which can be seen at ALTIMA.

• TEXT file

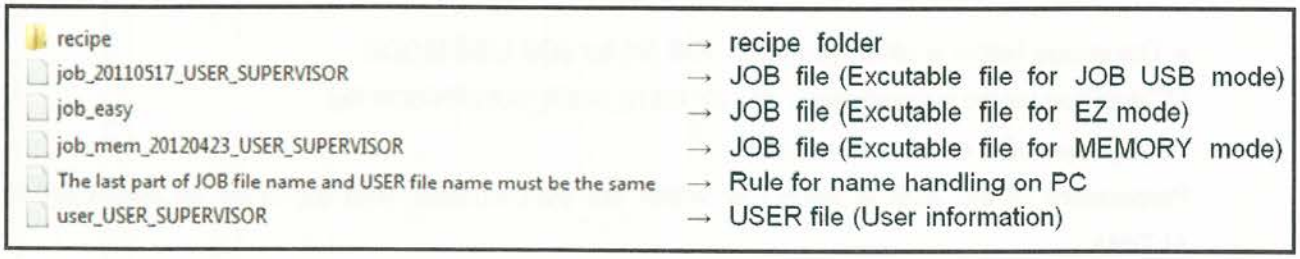
This file is text format file which does not include anything inside.

The title indicates a notification when editing the names inside of this folder.

The meaning is "The last part of JOB file name and USER file name must be the same." (Visible information for your easier understanding at the end of this chapter)

• USER file

This file is CSV format file which has user information.



4) Next let's open recipe folder to go to next layer. You will see 2 folders as described before.

• MEMORY folder

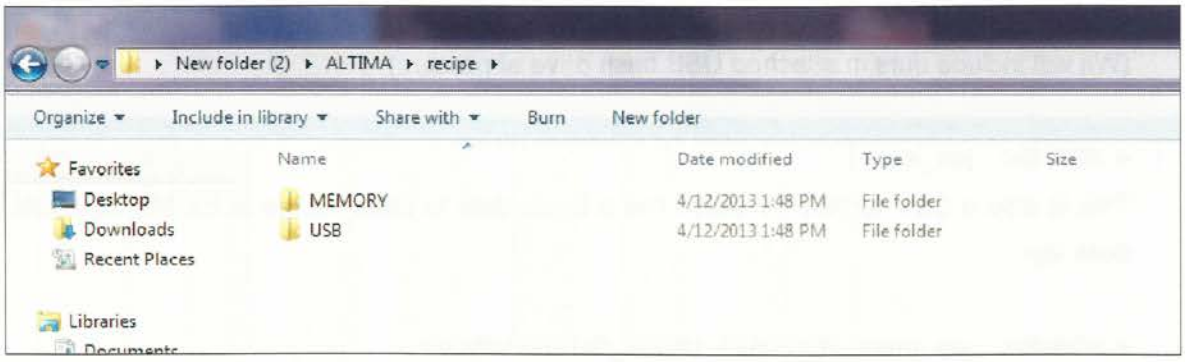
Here you store re-sized pictures and images as well as recipes.

Those file information is going to be shown at Desk top at MEMORY MODE.

• USB folder

Here you also store re-sized pictures and images as well as recipes.

This folder is for JOB USB MODE just same as information for MEMORY MODE.



12-2. DETAIL OF FILEs

Now you know about folder structure and want to know detailed information of each file.

Review the window opened when you put the USB flash drive into your PC below.

4 files are going to be described (recipe folder later)

recipe	→ recipe folder
job_20110517_USER_SUPERVISOR	→ JOB file (Excutable file for JOB USB mode)
job_mem_20120423_USER_SUPERVISOR	→ JOB file (Excutable file for MEMORY mode)
The last part of JOB file name and USER file name must be the same	→ Rule for name handling on PC
user_USER_SUPERVISOR	→ USER file (User information)

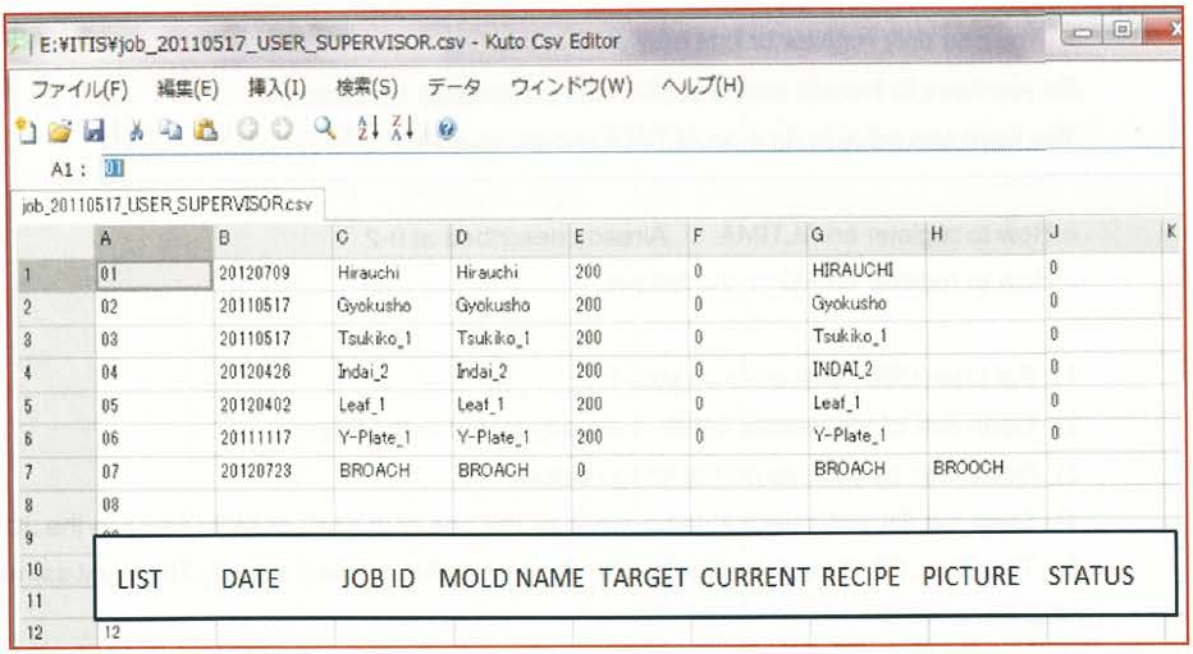
• The image below is when you open JOB file for JOB USB MODE.

(2nd data from the top in the window : job_20110517_USER_SUPERVISOR file)

You will see JOB details at each line.

Parameters of the JOB at each row which are synchronized with the ones on JOB LIST in ALTIMA.

From the left, List number, Date, Job ID, Mold Name, Target, Recipe, Picture, Status, are listed.



	A	B	C	D	E	F	G	H	J	K
1	01	20120709	Hirauchi	Hirauchi	200	0	HIRAUCHI		0	
2	02	20110517	Gyokusho	Gyokusho	200	0	Gyokusho		0	
3	03	20110517	Tsukiko_1	Tsukiko_1	200	0	Tsukiko_1		0	
4	04	20120426	Indai_2	Indai_2	200	0	INDAI_2		0	
5	05	20120402	Leaf_1	Leaf_1	200	0	Leaf_1		0	
6	06	20111117	Y-Plate_1	Y-Plate_1	200	0	Y-Plate_1		0	
7	07	20120723	BROACH	BROACH	0		BROACH	BROOCH		
8	08									
9										
10										
11										
12	12									

- If you put data from B to J on the line number 8 (blank line for instance) on your PC, The data is shown on Desk Top window at JOB USB MODE.

If you edit data on ALTIMA, it is stored in the USER USB flash drive which can be shown through this CSV editor at your PC also.

You will be able to plan which job for which USB flash drive (shooter) as work instruction without visiting each ALTIMA.

You can save much time if you have 20 machines.

You can also easily catch rejection rate at each shooter from the data in USB flash drive every day.

LIST	DATE	JOB ID	MOLD NAME	TARGET	CURRENT	PICTURE	RECIPE	STATUS
001	20120420	Hirauchi	Hirauchi	200	0		Hirauchi	0
002	20110517	Gyokusyo	Gyokusyo	200	0		Gyokusyo	0
003	20110517	Tsukiko_1	Tsukiko_1	200	0		Tsukiko_1	0
004	20120402	Indai_2	Indai_2	200	0		Indai_2	0
005	20120402	Leaf_1	Leaf_1	200	0		Leaf_1	0
006	20111117	Y-Plate_1	Y-Plate_1	200	0		Y-Plate_1	0
007	20120723	BROACH	BROACH	0		BROACH	BROOCH	
008								
009								

- You can only register or edit new JOB in this file.

So you have to include recipe in this JOB to complete for shooters.

You have two ways to do it on ALTIMA and on your PC.

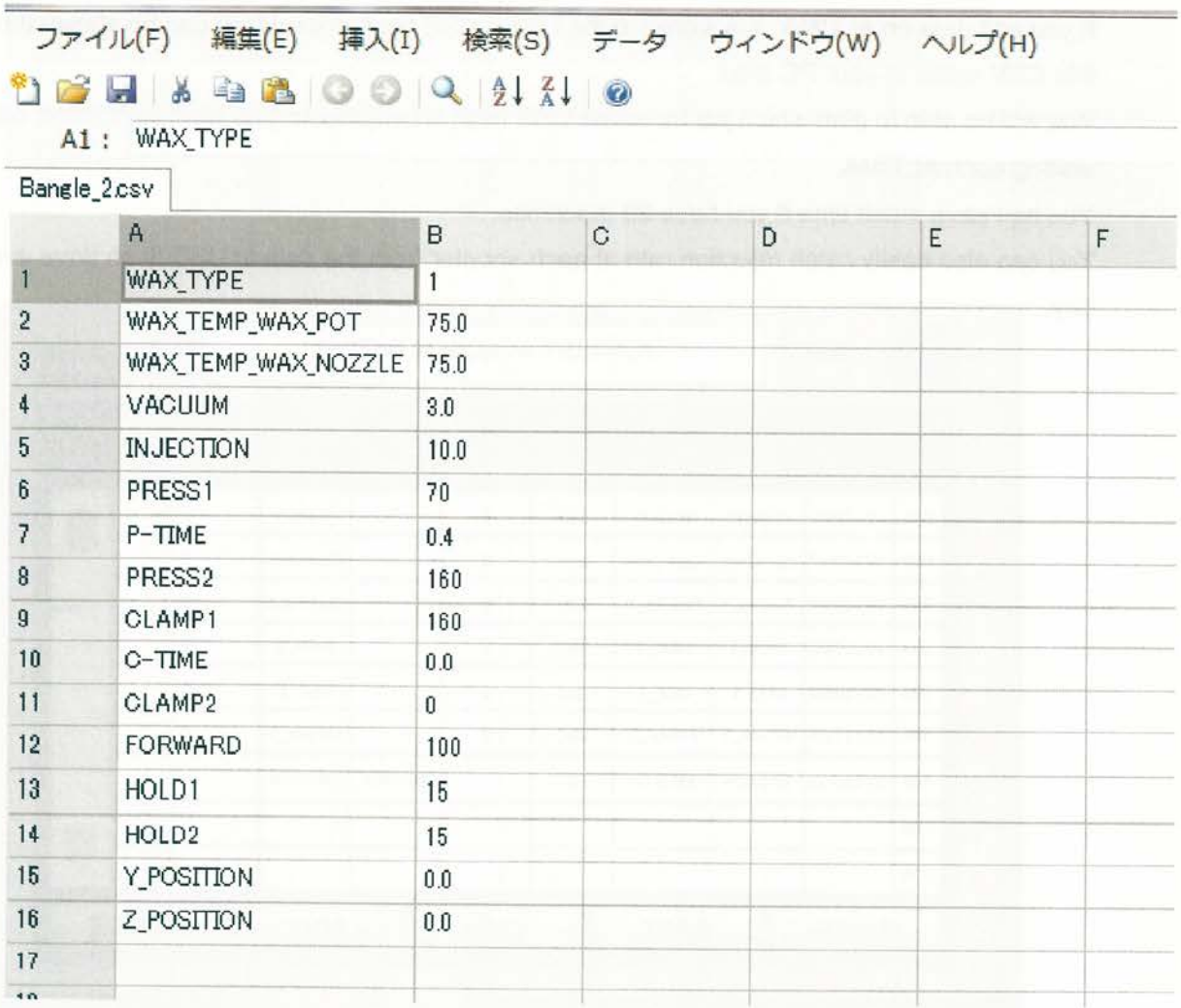
○ How to register on ALTIMA : Already described at 9-2.

○ How to register on PC : As follows

1) Put User USB flash drive on your PC.
2) Open one of the recipes which is already stored in the folder.
3) Edit B row as you see on the image below.
4) Store the file with new file name same as the one of JOB ID or Mold name in the JOB file.
5) Then the JOB file automatically refer the recipe file to reflect it on ALTIMA just same as registered on it

You can copy one of the recipes which Supervisor found for rubber which needs very high level.

You can transfer the data for BEGINNERs through your PC and USB flash drive.



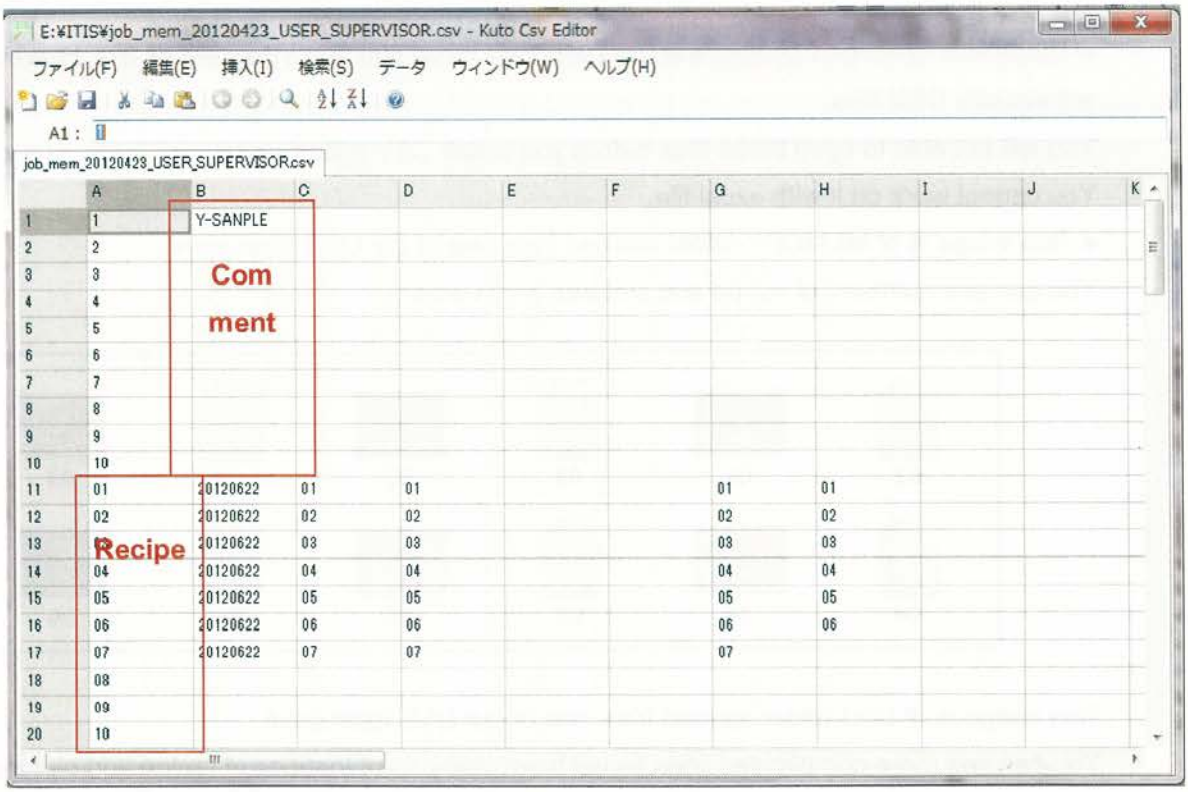
	A	B	C	D	E	F
1	WAX_TYPE	1				
2	WAX_TEMP_WAX_POT	75.0				
3	WAX_TEMP_WAX_NOZZLE	75.0				
4	VACUUM	3.0				
5	INJECTION	10.0				
6	PRESS1	70				
7	P-TIME	0.4				
8	PRESS2	160				
9	CLAMP1	160				
10	C-TIME	0.0				
11	CLAMP2	0				
12	FORWARD	100				
13	HOLD1	15				
14	HOLD2	15				
15	Y_POSITION	0.0				
16	Z_POSITION	0.0				
17						

6) You can also register pictures in JOB as well on your PC with completely same manner as CSV file you've just done.
Select one of pictures to store with same name as JOB ID or Mold name in the JOB file you want to reflect. That's all.

- This is the end of procedure for easy understanding of the idea to handle JOB USB MODE very efficiently.

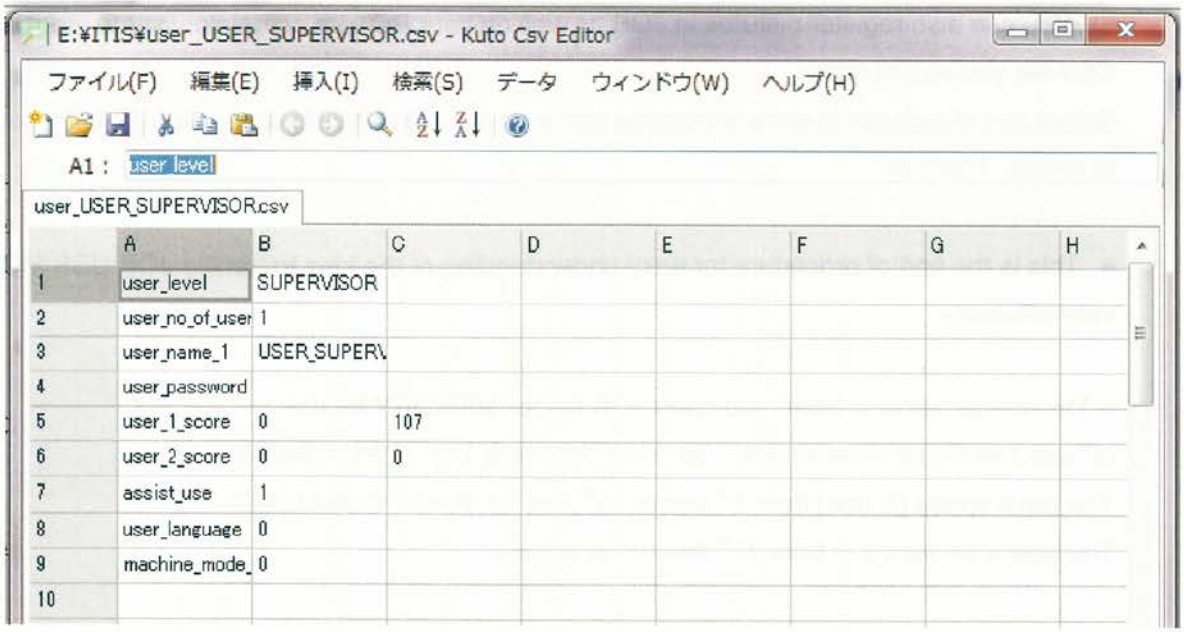
- The image below is when you open JOB file for MEMORY MODE.

(3rd data from the top in the window : job_mem_20120428_USE_SUPERVISOR file)
You have space (B row) from 1st line to 10th line for "PAGE COMMENT"
The space for recipe is from 11th line (01 at A row)



- The image below is when you open USER file.

(The last data in the folder : user_USER_SUPERVISOR file)
This is the user information. You can change the name and level here (at B3)



	A	B	C	D	E	F	G	H
1	user_level	SUPERVISOR						
2	user_no_of_user	1						
3	user_name_1	USER_SUPERV						
4	user_password							
5	user_1_score	0	107					
6	user_2_score	0	0					
7	assist_use	1						
8	user_language	0						
9	machine_mode_	0						
10								

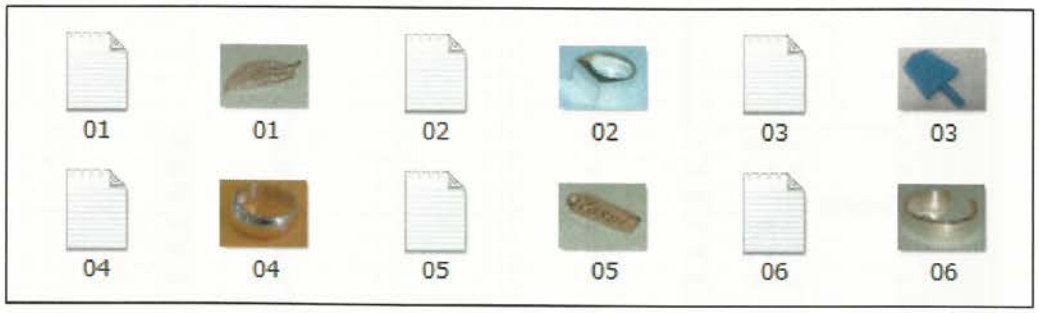
• Those files described as above are not windows excel files even they are as it is. However they are actually CSV files.

You will not able to open these files before you install CSV editor.

You cannot work on it with excel file.

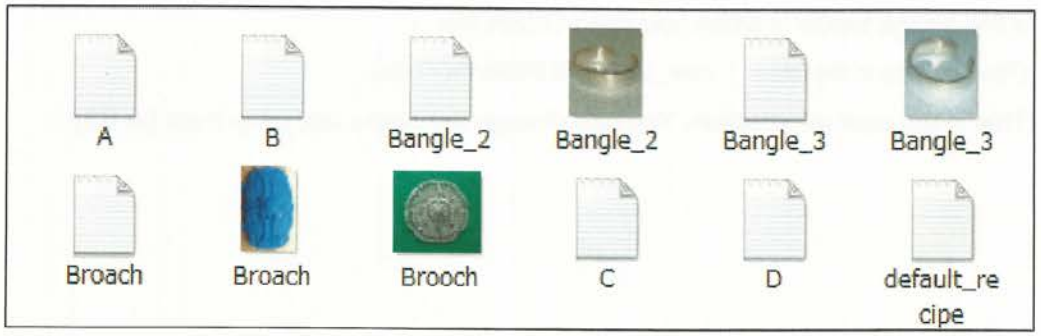
• This image is of MEMORY folder opened from one of our USB flash drive.

You can see numbers of recipe and pictures are in order.

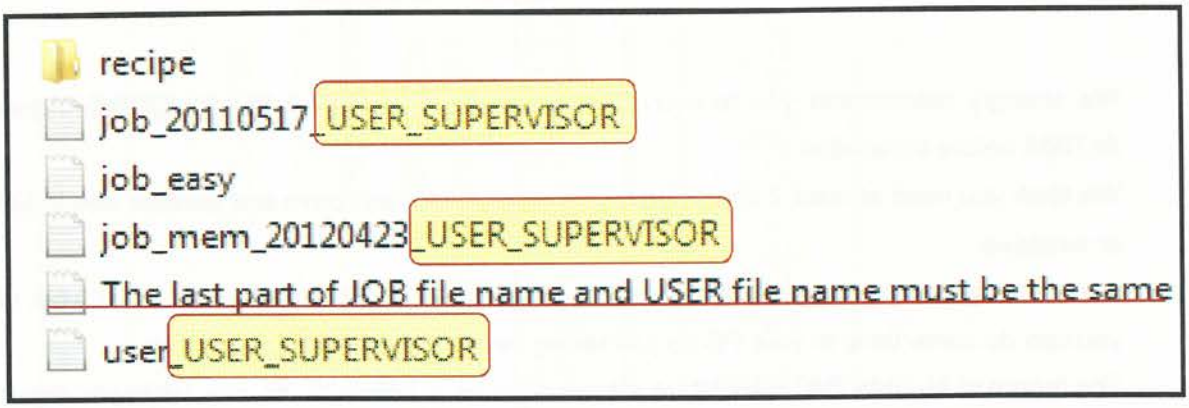


This image is of USB folder opened from one of our USB flash drive.

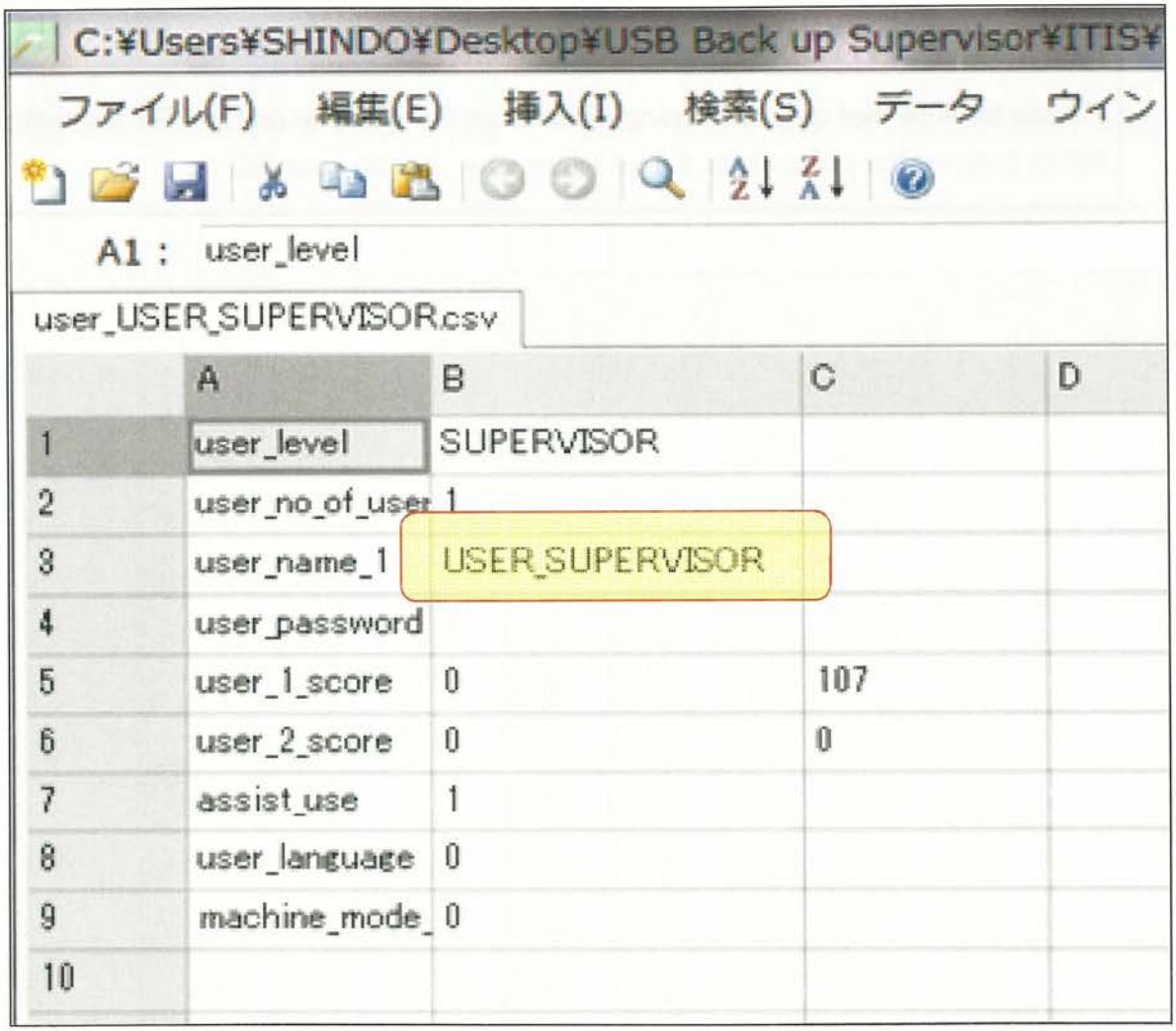
You can see more complicated lines as we have many combinations of recipe and pictures.



• Visible information for your easier understanding about notification TEXT file)



The last part of JOB file name and USER file name must be the same.
→ It is based on the name decided at B row, 3rd. line in the USER file.



	A	B	C	D
1	user_level	SUPERVISOR		
2	user_no_of_user	1		
3	user_name_1	USER_SUPERVISOR		
4	user_password			
5	user_1_score	0	107	
6	user_2_score	0	0	
7	assist_use	1		
8	user_language	0		
9	machine_mode_	0		
10				

12-3. BACK UP USER USB FLASH DRIVE

We strongly recommend you to copy and store the data in USB FLASH DRIVE included in ALTIMA before installation.

We think you need at least 2 copies, one in another USB flash drive and another one in SD card or whatever.

You can create back up USB flash drive following at DATA MENU pages described later, while you can do same thing in your PC by just taking back up of each user level data.

The format in ALTIMA DATA MENU is always done as SUPERVISOR only, while you can format as any user level in your PC by taking back up.

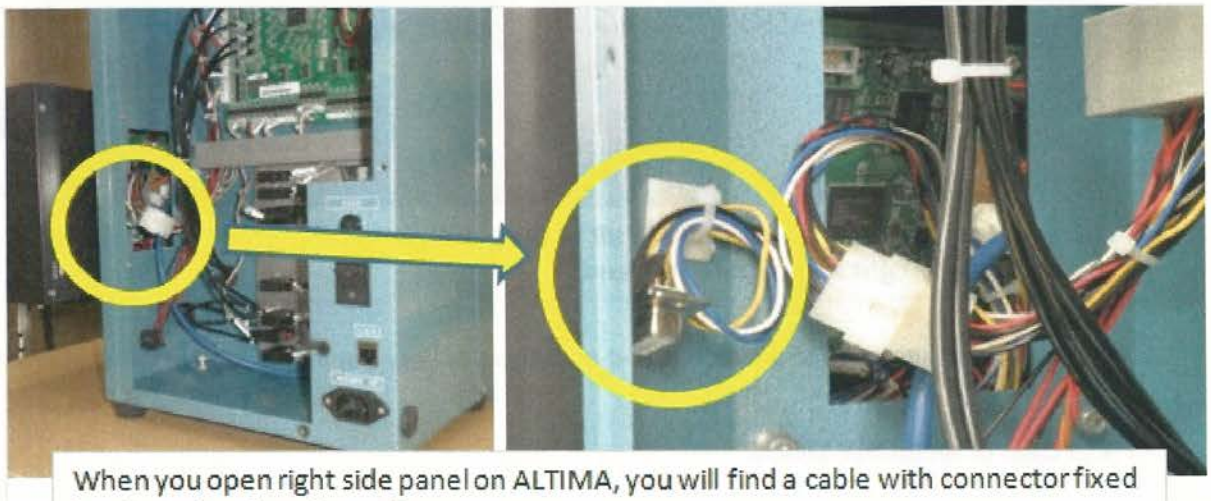
> ⚠ ATTENTION
>
> Please be sure that only one typing mistake on file name or text in CSV file makes you fail to achieve the purpose as above when you work on your PC.

13. IC TAGs

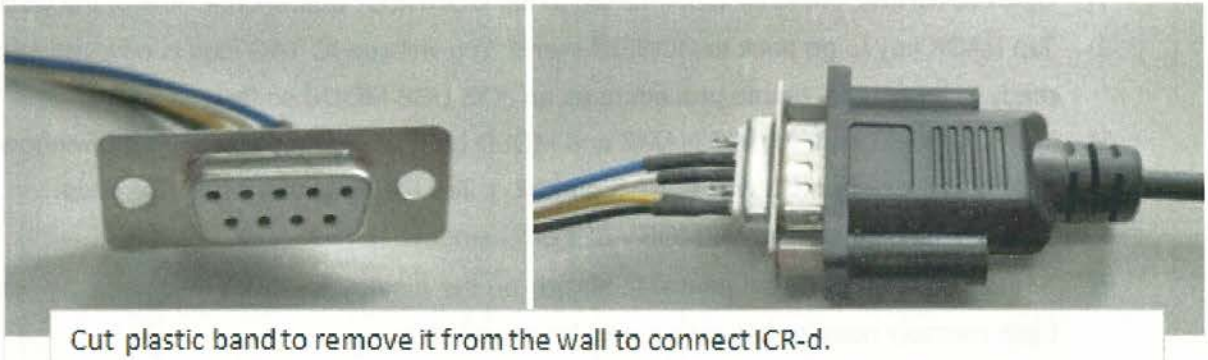
13-1. HOW TO USE IC TAGs ON ALTIMA

You can operate ALTIMA with IC tag as well as ICC.
Because of the differences of function, IC tags on ALTIMA traces rubber mold name, while recipe name on ICC.
The basic operation is almost same as ICC, just hold or put rubber mold which IC tag embedded on ICR-d to be selected recipe.
You have to connect optional ICR-d to serial cable as follows.

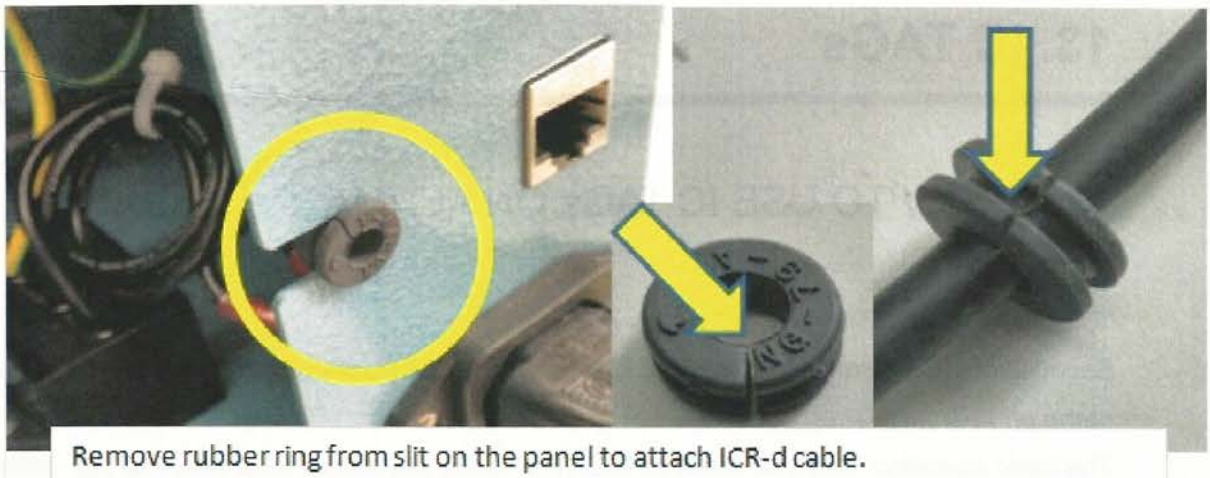
**** Please be sure to do it with power switch OFF.**



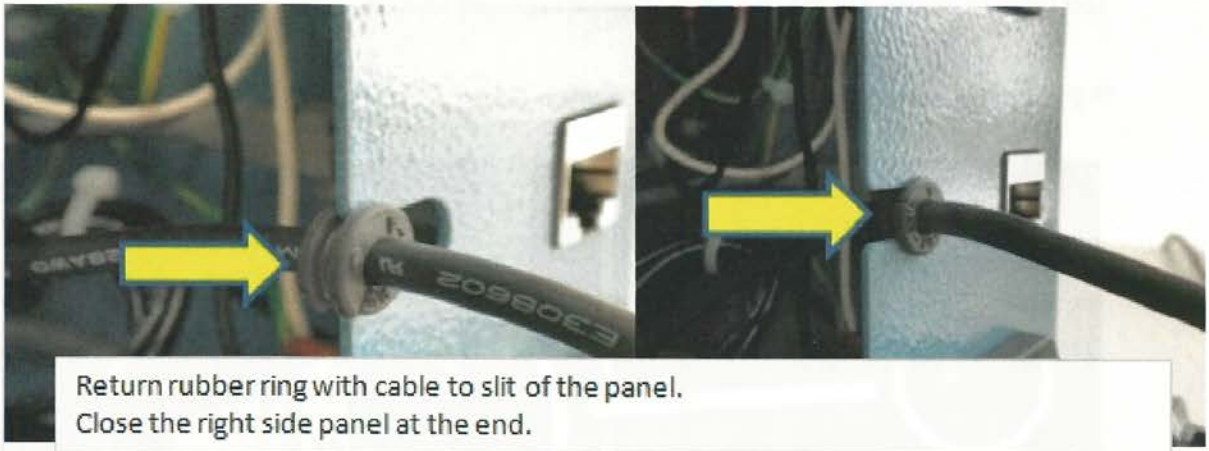
When you open right side panel on ALTIMA, you will find a cable with connector fixed by plastic band on the wall.



Cut plastic band to remove it from the wall to connect ICR-d.
Please be careful not to give any damage on cables and soldered part.



Remove rubber ring from slit on the panel to attach ICR-d cable.
The ring is C shaped for easy attach.



Return rubber ring with cable to slit of the panel.
Close the right side panel at the end.

You have initial process to activate ICR-d as follows at very beginning just after installation;

- In case of MEMORY MODE

Activate IC tag icon (only the 1st time after installation)

1) Open MACHINE menu by CONFIG tab to tap CONNECT button on 4th line of the window.
2) Tap BACK key to go back to CONFIG menu. You will see IC TAG icon is now activated and ready to be tapped. (same procedure as on JOB USB MODE so far)
3) You will see 2 Lines, IC TAG NAME and MOLD LIFETIME when you open the window.
4) Hold or put rubber mold with IC TAG on ICR-d. Tap READ button when it reacted.
5) Then the display turns to MEMORY SELECT window.
6) 9 Memory number (mold name) is shown on the display up to 90 memories by scrolling. Each memory number has recipe only for observation.
7) Select one number from them and tap OK button to confirm and return to previous window. Check the number on the window and tap SAVE button to save it to IC tag.
8) IC tag is reflected by 01 on MEMORY MODE if it is changed or not changed.
9) This procedure is also for brand new IC tags.

- In case of JOB USB MODE

Carry out 1) and 2) as above.

1) Same window opens as above if you tap IC TAG button from CONFIG menu.

2) You will see 2 Lines, IC TAG NAME and MOLD LIFETIME when you open the window.

3) Hold or put rubber mold with IC TAG on ICR-d. Tap READ button when it reacted.

You will see mold name shown by this.

4) Tap IC TAG NAME box to enter mold name when IC tag is empty.

Tap OK button and SAVE button to save it to IC tag.

5) Hold or put rubber mold with IC TAG on ICR-d at Desk Top. ALTIMA automatically select the JOB box.

6) ALTIMA always finds mold name only, while ICC finds recipe.

⚠ CAUTION

ALTIMA does not recognize Recipe registered by ICC. If you want to re-use the recipes, you have to take note and register on ALTIMA by manual

⚠ CAUTION

ALTIMA shows an alarm if you try to activate ICR-d without connecting.

13-2. USEFUL FUNCTION OF IC TAGs

It is much easier to add JOB by IC tags, because there will not be any mistakes on spelling.

The JOB will be automatically added at the end of list.

In case if only mold name is saved in the IC tag, JOB name and recipe will be automatically registered at the same time.

(When mold name, recipe file name and picture file name are the same)

JOB ID is also reflected. Please edit if you need after that.

14. USER LEVEL

14-1. WHAT IS USER LEVEL?

ALTIMA has 3 kinds of user level depending on shooters' skill.

- BEGINNER
- EXPERIENCED
- SUPERVISOR

The manager provides BEGINNER only easy design to get good results.
This is possible to save many recipes in USB memories.
Now the production is not affected too much by shooters thanks to recipe data.
He can arrange many jobs for other levels to provide.
He can even take advantage of this system to push up the level of each shooter improved.

AUTHORITY OF EACH USER LEVEL

FUNCTION	BEGINNER	EXPERIENCED	SUPERVISOR
EDIT RECIPE(TEMP.)	ALLOWED	ALLOWED	ALLOWED
SAVE RECIPE(TEMP.)	NOT ALLOWED	ALLOWED	ALLOWED
EDIT JOB	NOT ALLOWED	NOT ALLOWED	ALLOWED
DATA MENU	INVALID	INVALID	VALID
CONFIG	MODE, USER&SECURITY	MODE, USER&SECURITY	MODE, USER&SECURITY
			JOB LIST
			COUNTER
			WAX
			MACHINE
			DATE & SCHEDULE
			IC TAG
			DISPLAY
			LANGUAGE
			PAYMENT PASSWORD

14-1-1. BEGINNER

BEGINNERs are those who do not know what wax shootings and wax injectors are.
They often changes recipes and setting of machines which cause rejection.
So the operation is much limited and basically very simple operation is allowed.
The recipe data will be safely protected even if they try to change.

14-1-2. EXPERIENCED

EXPERIENCED are medium leveled workers with better skill grown by certain period experiences for shooting wax with better quality.
This level is majority of shooters and very important workers who are allowed to change recipes and overwrite to save when they find better recipe.
However they are not allowed to change and overwrite JOBs.

14-1-3. SUPERVISOR

SUPERVISORs are highest leveled workers who can find out the best recipes to get the best wax patterns which beginners and experienced workers cannot.
You can believe and allow them to do anything on ALTIMA basically.
They are allowed to register new JOB and recipe, edit and overwrite.

- We introduce one example how to handle 3 user levels as follows ;

Suppose if these 3 levels as 3 colors like traffic signal.
Red must be very careful; we have to be careful with beginners.
Yellow as careful; we have to be careful experienced people sometimes.
Green as safe; we can rely on supervisors.
You can put labels on each USB flash drive with those colors which make easily identify workers' level.
You may control the level by making them compare labor condition by color for instance.

- You can change USER LEVEL of any USB memories as follows ;

Open "MODE, USER & SECURITY" window from "CONFIG" tab.
You will find USER LEVEL function on 3rd line.
There are 3 levels on it and you can check its level and also change by tapping one of them.
However once you make its level down, for instance from supervisor to experienced, you will not be able to go back to supervisor again without entering password.
Please make sure you always need to enter password when you want to go up.
The default password is YASUI_ALTIMA. (You can change the password as follows;)
Tap CHANGE PASSWORD button under User level line, Type present password, Tap OK to type new password, Tap OK button to confirm.

15. ASSIST FUNCTION

ALTIMA has a splendid function which we have never had before.
What is amazing is that ALTIMA assists you to improve recipe for rejected wax very easily by just pointing out what kind of problem happens at which part and how seriously.
ALTIMA automatically adjust some of recipe instead of you.
Even if ALTIMA cannot find better recipe by this, you can repeat pointing out to improve it.
You will finally find the best recipe by the assistants of ALTIMA.
This is especially good for beginners.
You have to activate this function at MODE, USER & SECURITY icon for the first time.

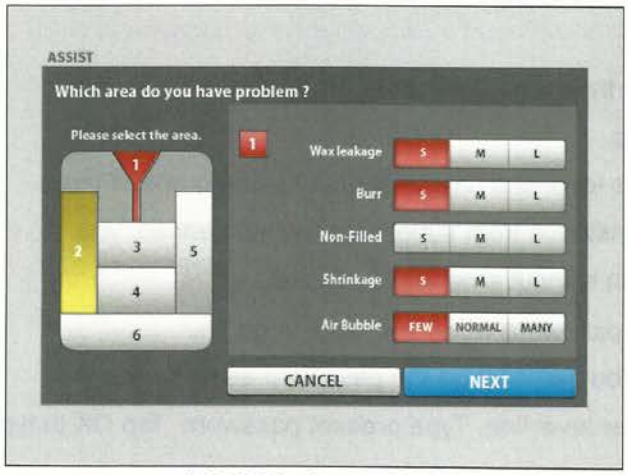
**This function does not mean to ensure to supply perfect answer always.
It is only assistance for better answer as quickly as possible.

Please try to understand details in display first before explaining how to use.

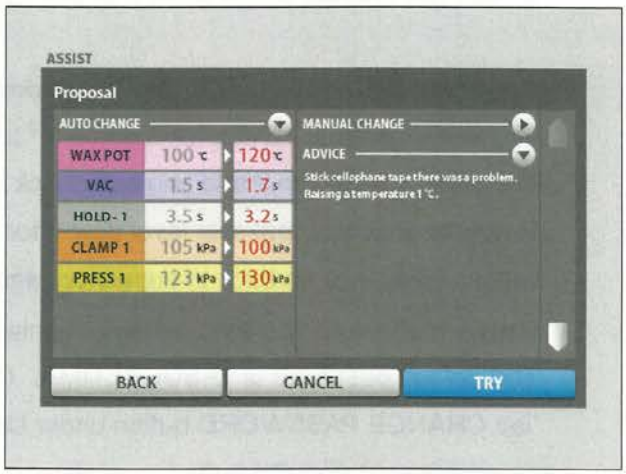
15-1. HOW TO MOVE TO ASSIST FUNCTION

1) You can open ASSIST window (1/2) by tapping button [ASSIST]
when the display is JOB LIST window or MEMORY LIST window on desk top.

2) You can open ASSIST window (1/2) by tapping button [ASSIST]
when the display is JOB window or MEMORY window on desk top.

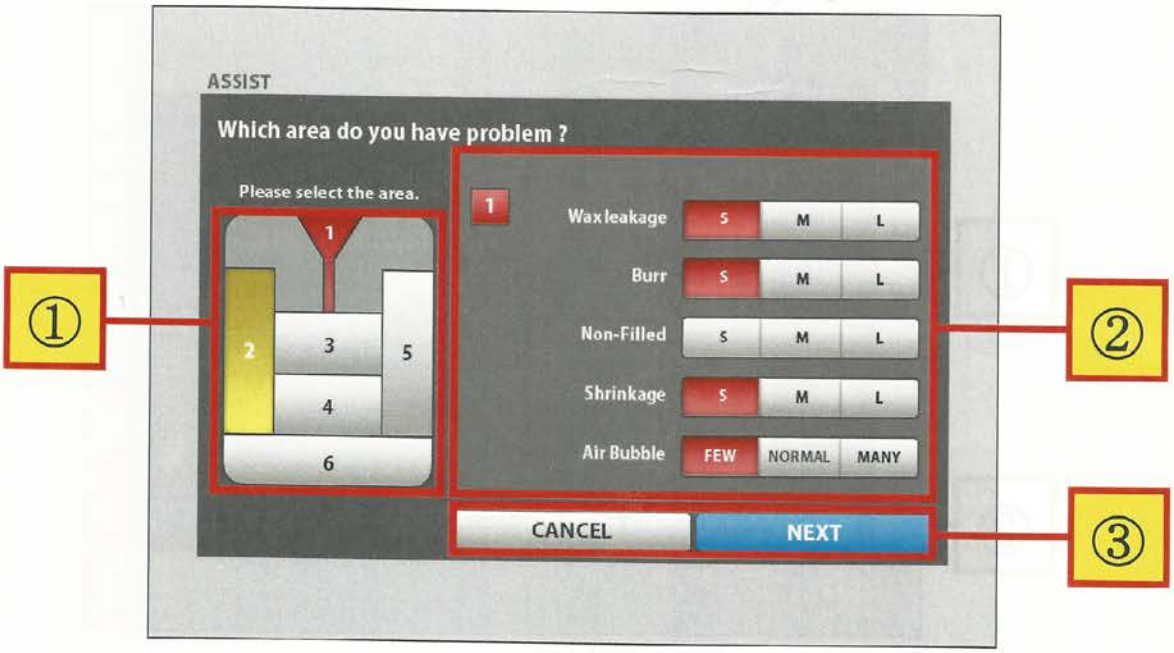


ASSIST window(1/2)



ASSIST window(2/2)

15-2. ASSIST DISPLAY(1/2)



① Rubber mold

You can point out where you have problem by tapping this display.

② Kind of problem and level

You can point out what kind of problem with which level (S, M, L) happens by tapping here.

You can point out several parts at once.

③ RUN

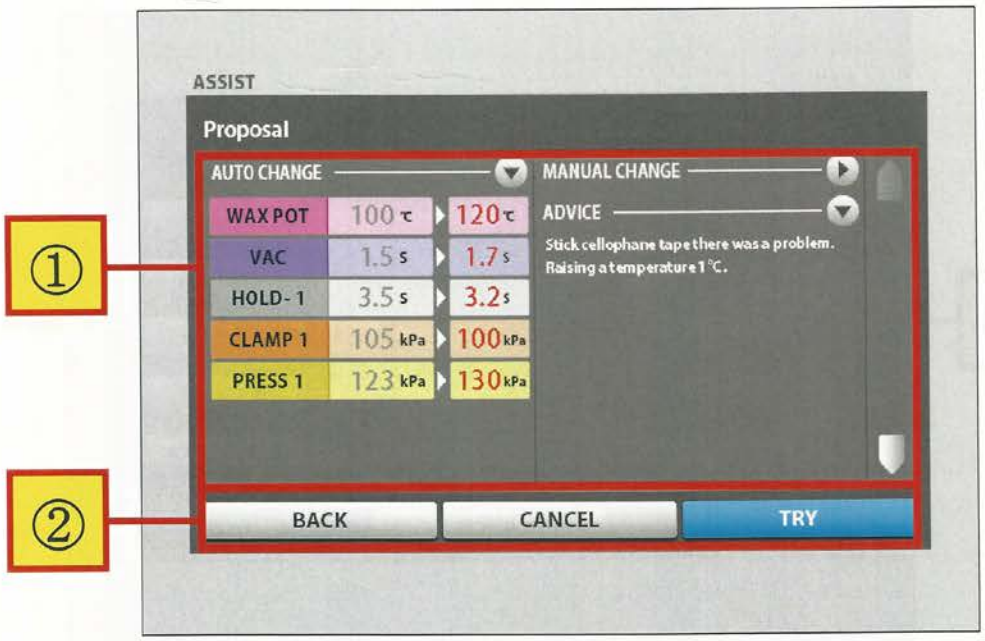
「NEXT」

Start calculation for new recipe.

「CANCEL」

Go back to desk top.

15-3. ASSIST DISPLAY(2/2)



① The result of calculation.

「AUTO CHANGE」

Open new result.

「MANUAL CHANGE」

Open item which cannot improve automatically.

Improve manually following advice.

「ADVICE」

Advice message is shown here.

「SCROLL BUTTON」

You can scroll the result of calculation.

⚠ DANGER

On next step, ALTIMA actually shoots by TRY button which can give you a damage.
Please do not forget to put rubber mold on clamp table before you touch TRY button

② RUN

「BACK」

You can go back to ASSIST window(1/2).

「CANCEL」

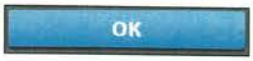
Go back to desk top.

REMINDER : BE CAREFUL, HOT WAX comes out !!

「TRY」

You can try to shoot with new recipe.

「OK」



Go back to desk top with new recipe saved.

The recipe will be displayed after trial.

15-4. HOW TO USE ASSIST FUNCTION

1) Tap the part on rubber to point out.
2) Select the level of problem from A, B and C.

[PROBLEM]

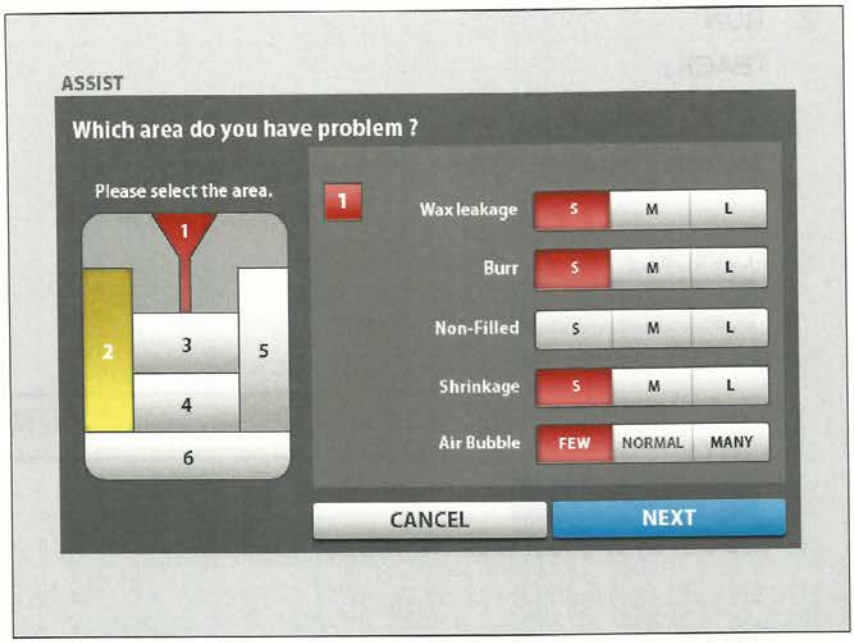
Wax leakage	...	How much leakage in which part
Burr	...	Fins
Non-filled	...	Under- filling
Shrinkage	...	Shrinkage
Air bubble	...	Bubbles

* You can select several problems

[LEVEL]

S (Small)	~	L (Large)
FEW (a few)	~	MANY(many)

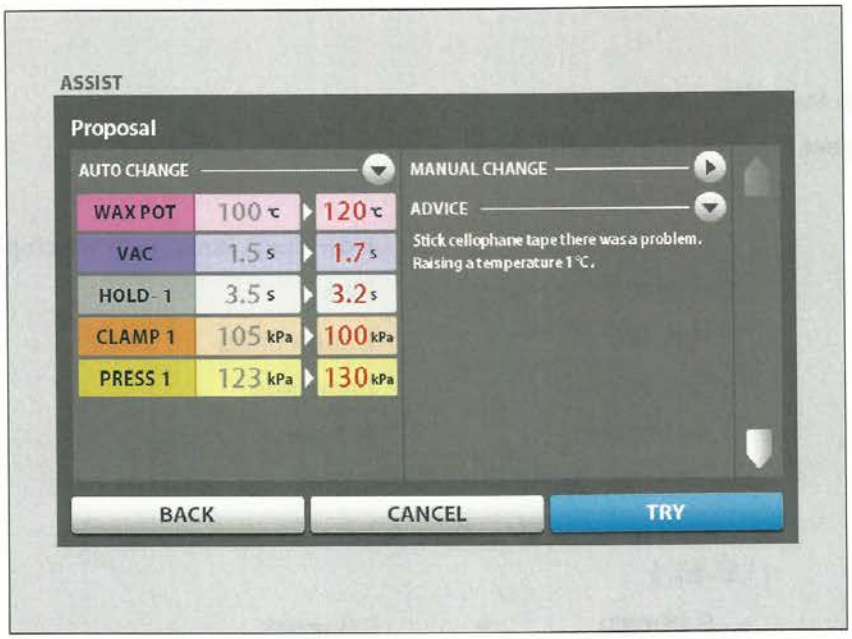
* The part selected turns red.
* The part entered its level turns yellow.



Display after entering level

3) Tap NEXT button after entering level.

The result of calculation will be shown.



Display after the result of calculation

4) Setting have to be done when you find message "MANUAL CHANGE" and "ADVICE"

5) Tap TRY

to try to shoot with new recipe.

You cannot save the result without trying.

6) Tap OK

when the result is OK.

Tap BACK

when the result is not OK to go back to ASSIST window (1/2) to repeat pointing out.

7) Tap SAVE button

long time to save the new recipe when you go back to desk top.

* Be careful, the recipe is not saved without SAVE button tapped.

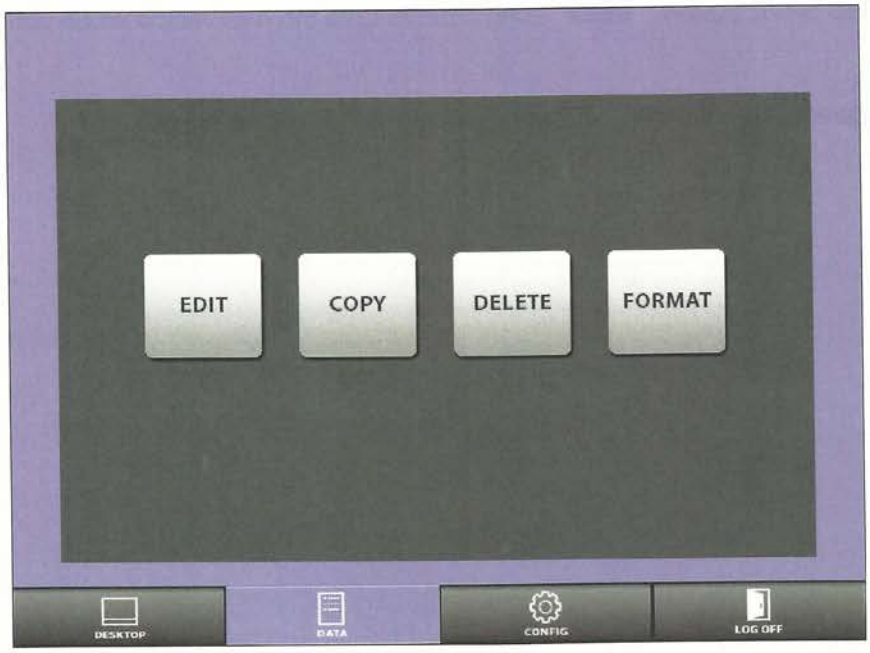
16. DATA MENU

In this menu it has four kinds of functions ; EDIT, COPY, DELETE and FORMAT.
Only SUPERVISOR can enter this menu, not for beginner nor experienced authority.

<How to enter DATA menu>

1)Tap DATA

button to enter.



<About Each MENU>

EDIT

You can edit RECIPEs in your USER USB flash drive.

COPY

You can copy JOBs, RECIPEs and SCHEDULEs in your USER USB flash drive .

DELETE

You can delete JOBs and RECIPEs in your USER USB flash drive .

FORMAT

You can format your USER USB flash drive .

16-1. EDIT

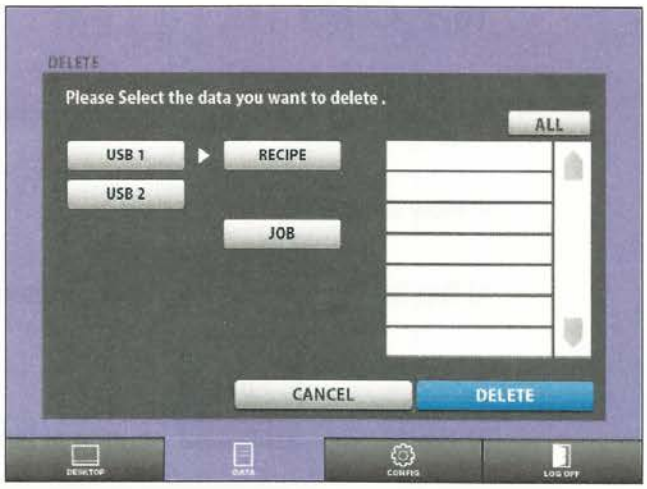
You can edit RECIPEs in your USER USB flash drive .

<How to enter EDIT window>

1)Tap DATA button to enter.

2)Tap EDIT button

at DATA window to enter.



CAUTION

The operation above will be invalid if no USB memory inserted in the slots.

<How to EDIT>

1) Please pick up and insert USB flash drive which already some recipes stored.

Tap USB1 button to select.

Tap USB2

button to select.

2) Select data

Tap RECIPE

button to select.

3) Tap EDIT

button to select.

RECIPE SEARCH window will be opened.

4) Select recipe you want to edit.

5) Tap CANCEL

button to go back to DATA menu window.

16-2. COPY

You can copy JOBs, RECIPEs and schedules to other USB flash drive .

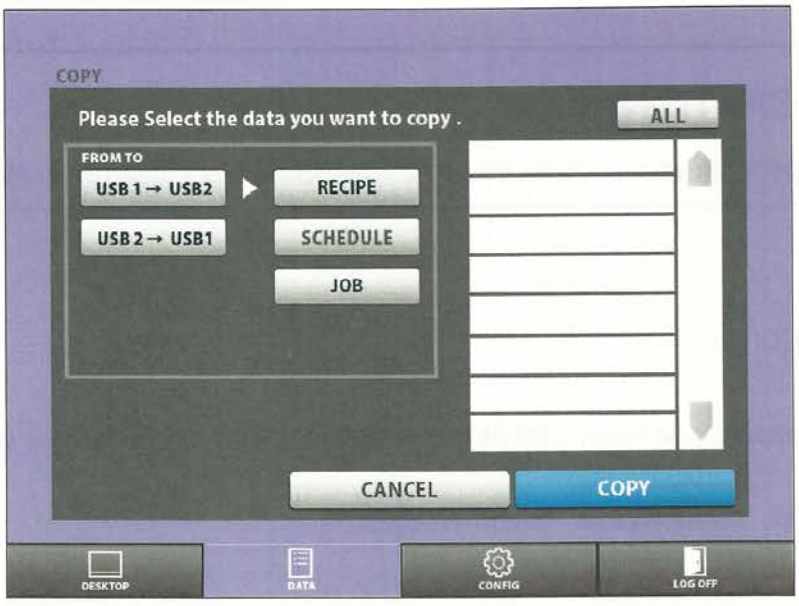
<How to open COPY window>

1) Tap DATA

button to enter.

2) Tap COPY

button at DATA window to enter.



> **CAUTION**
>
> The operation above will be invalid if no USB memory inserted in the slots.

<How to COPY>

1) Select USB flash drive .

USB1→USB2 [USB 1→ USB2] button is for copying from USB1 to USB2.

USB2→USB1 [USB 2→ USB1] button is for copying from USB2 to USB1.

2) Select which data you want to copy.

Tap RECIPE [RECIPE] button, SCHEDULE [SCHEDULE] button

or JOB [JOB] button.

※ You can select only one of them.

3) Select data you want to copy.

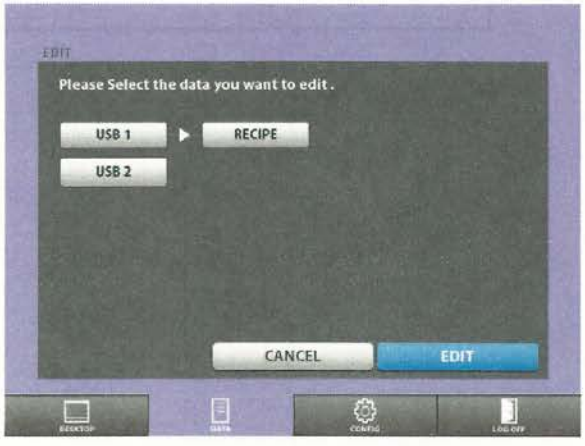
4) Tap COPY [COPY] button.

The recipe will be copied to the USB flash drive .

16-3. DELETE

You can delete JOBs and RECIPEs in your USB flash drive .

<How to open DELETE window>



1) Tap DATA [DATA] button to open DATA menu window.

2) Tap DELETE [DELETE] button at DATA window to enter.

CAUTION

The operation above will be invalid if no USB memory inserted in the slots.

<How to DELETE>

1) Select USB flash drive .

USB1→USB2 [USB 1→ USB2] button is for deleting from USB1 to USB2.
USB2→USB1 [USB 2→ USB1] button is for deleting from USB2 to USB1.

2) Select which data you want to copy.

Tap RECIPE [RECIPE] button or JOB [JOB] button.
※You can select only one of them.

3) Select data you want to delete in the list

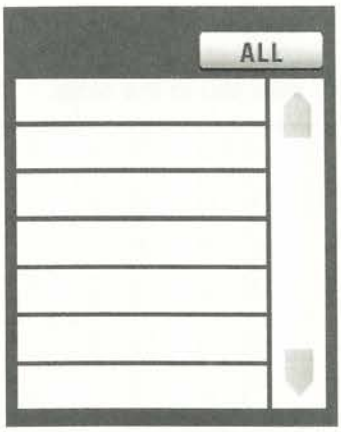
4) Tap COPY [COPY] button.
The recipe will be copied to the USB flash drive.

5) A pop up window is shown and asks you to delete or not.
Tap OK [OK] button when you are sure to delete the data.
The job or recipe you selected will be deleted.

Notice

You cannot recover the data once you deleted.

<How to use list>



LIST

You can tap one of data from the list to select and delete.
You can delete one more tapping selected data.
You can select more than one data.

You can scroll by scroll button to go up and down in the list.

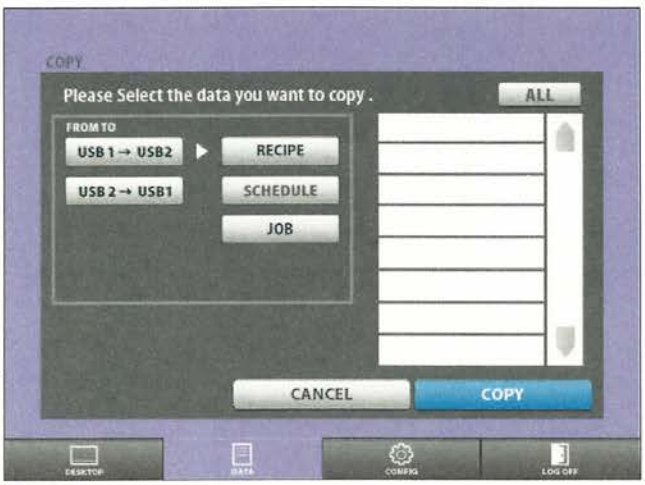
You can select all of data when you tap ALL button.
Make sure you cannot cancel all selecting lists by ALL button

<How it listed up in the display>

When you select button, each recipe will be displayed.

When you select button, USER name will be displayed.

16-4. FORMAT



You can format your USB flash drive.

<How to open FORMAT window>

1) Tap DATA button to enter.

2) Tap FORMAT button at DATA window to enter.

CAUTION

The operation above will be invalid if no USB memory inserted in the slots.

<How to FORMAT>

1) Tap USB1 [USB 1] button to select.
   Tap USB2 [USB 2] button to select.

2) Tap FORMAT [FORMAT] button.

3) A pop up window is shown and asks you to delete or not.

Tap OK [OK] button when you are sure to format.
The USB flash drive will be formatted.

NOTICE

All of data will be erased by formatting and cannnot recover the data once you formatted

17. CONFIG MENU

You have several configuration menus in this menu page like switching USER level, Managing JOB, WAX and Schedule, also Maintenance.

<How to open CONFIG menu window>

1) Tap CONFIG

to open the window.

CONFIG window for Beginner and Experienced

CONFIG window for USER SUPERVISOR

<About each icon>

MODE, USER & SECURITY

Here you can select operation MODE, USER LEVEL, ASSIST activate or not, set PASSWORD to ensure security.

JOBLIST

You can grasp all of JOBs as a list in one page. You can create new JOB, sort, copy and delete.

COUNTER

You can check how many shots have been done the day, and machine total shots in the past.

WAX

Configuration for injection WAX..

You can register WAX type, name and color. Also edit, copy, delete can be done.

MACHINE

You can check machine Spec. Configuration of Net work, ICR-d, Clamp size, Temp. + others.

DATE & SCHEDULE

You can check and plan machine schedule to decide when heat or pre-heat on this calendar.

Only for SUPERVISOR.

ICTAG

You can edit IC tag mold name. Also can check usage count of rubber mold.

Only for SUPERVISOR.

DISPLAY

Configuration for Display.

Suspend timer, Brightness, Default of Desk Top and unit of measure.

LANGUAGE

You can select language here.

PAYMENTPASSWORD

You can enter Passwords for Monthly payment here. Only for customers who use this system.

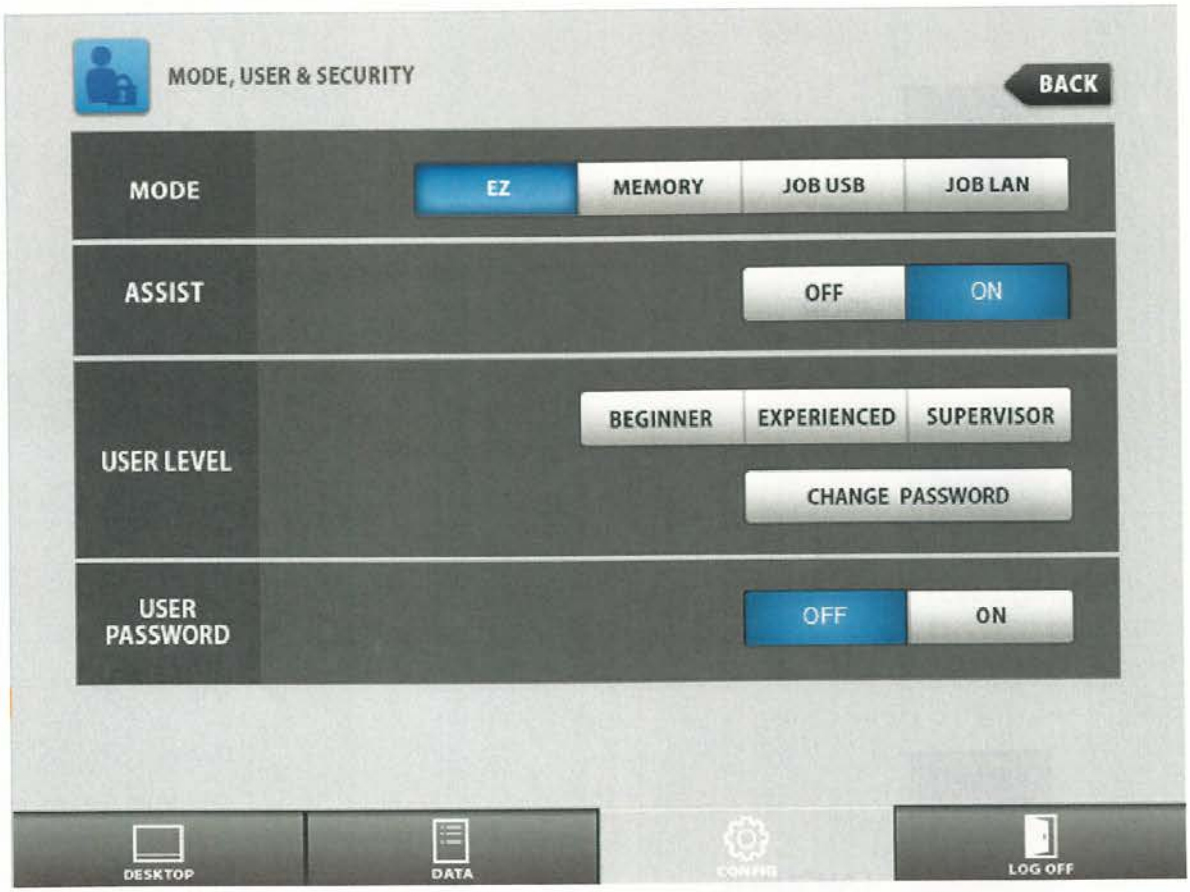
17-1. MODE, USER & SECURITY

Here you can select operation MODE, USER LEVEL, ASSIST activate or not, set PASSWORD to ensure security.

<How to enter "MODE, USER&SECURITY" window>

1) Tap "CONFIG" tab to enter.

2) Tap "MODE, USER&SECURITY" icon to enter.



<Details of Each page in CONFIG menu>

1) MODE

You can select "MODE" here. You have to reboot to activate the result.

2) ASSIST

This is for easy editing recipe to have better result by minimum process step by step.
You have to tap "ON" button here to activate this function.

3) USERLEVEL

You can select "USERLEVEL" as already described on previous pages.

4) USERPASSWORD

You can set Log in "PASSWORD" here.

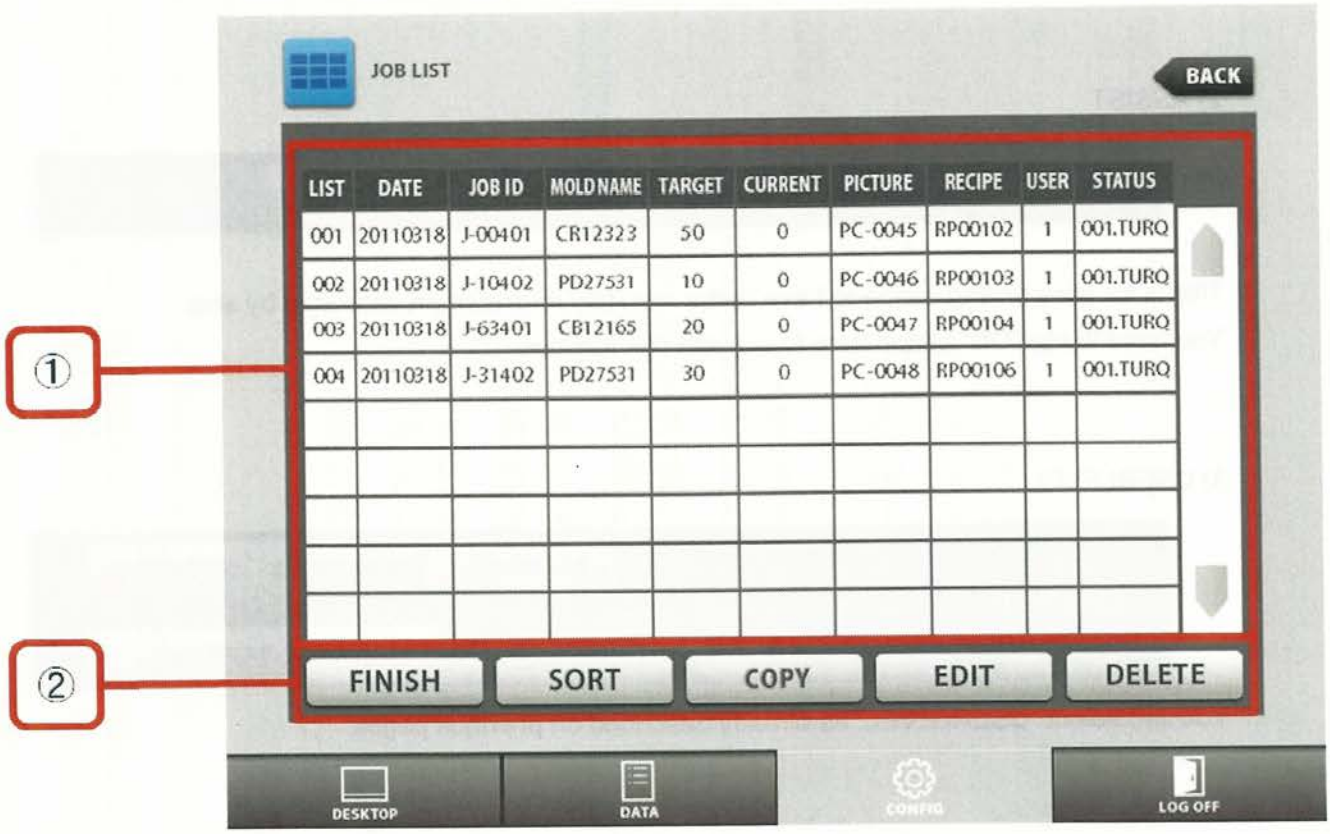
17-2. JOB LIST

Here you can administer JOBs.
New registration of JOB, editing and delete can be done.
The maximum JOBs which can be displayed is 45.

<How to open "JOBLIST" window>

1) Tap "CONFIG" tab to open CONFIG window.

2) Tap "JOBLIST" button to open.



①List area

②Operation area

Details as follows

17-2-1. JOB LIST

You can check what is registered here in this set up JOB LIST.

You can also create new JOB, sort, copy and delete JOBs.

1) LIST

You can grasp all of JOBs as a list in one page.

[Article]

LIST	... List number of JOB
DATE	... Date created (yyyymmdd)
JOBID	... JOB ID
MOLDNAME	... Mold name
TARGET	... Target of production number
CURRENT	... Actual number of shots
PICTURE	... Name of the image
RECIPE	... Recipe set for the JOB
STATUS	... Status of shot

"Scroll button"

They are for going up or down in the list.

2) Operation

[FINISH]

You can switch JOB status to[FINISH]

The JOB is moved at the end of the list on both list. The status changes 1 from 0.

[FINISH] button changes to [RESUME].

[RESUME]

You can switch JOB status to [RESUME]

The JOB is moved on the top of the list on both list. The status changes 0 from 1.

[RESUME] button changes to [FINISH].

[SORT]

You can change the position of JOB listed.

The result will be reflected on JOBLIST on desk top.

<How to SORT>

1) Select one of JOBs to sort in the list.

2) Tap [SORT] button.

3) Tap another JOB to sort. The JOBs changes the position one another.

[COPY]

You can copy JOB to blank line.

<How to COPY>

1) Select one of JOBs to copy in the list.

2) Tap [COPY] button.

3) Copy is made at the end of the list.

[EDIT]

You can edit JOB. *Recipe cannot be edited.

[DELETE]

You can delete JOB.

Select one of JOBs to delete. Tap OK

button to confirm.

> ⚠ NOTICE
>
> You cannot recover the JOB once you deleted.

17-3. COUNTER

You can check how many shots have been done the day and machine total shots in the past by tapping this icon.

Counter record is not erased even if main power OFF.

You cannot edit counter.

<How to open COUNTER window>

1) Tap CONFIG

tab to open CONFIG menu.

2) Tap COUNTER

icon to open COUNTER window.

- TODAY

Shows number of shots on the day.

- MACHINE TOTAL

Shows machine total number of shots in the past.

17-4. WAX

You can register WAX type, name and color. Also edit, copy, delete can be done.
This is very helpful to know especially for the past recipe with which wax to prevent big difference depending on wax character.
The maximum wax registered is 7.

<How to open WAX window>

1) Tap CONFIG tab to open CONFIG menu.

2) Tap WAX button to open WAX window.

1) WAX list

You can check what is registered here in this LIST.

You can also register new WAX, sort, copy and delete JOBs.

[Article]

LIST ... List number of WAX

MAKER ... Manufacturer of WAX

NAME ... Name of WAX

TYPE ... Type of wax

COLOR ... Color of wax (shown on desk top window)

"Scroll button"

They are for going up or down in the list.

2) Operation

[SELECT]

Tap this button when you select one of from the list. Actual operation will be described later.

「SORT」

You can change the position of WAX listed.

<How to SORT>

1) Select one of JOBs to sort in the list

2) Tap [SORT] button.

3) Tap another WAX to sort. The WAXs changes the position one another.

[COPY]

You can copy WAX to blank line.

<How to COPY>

1)Select one of WAXs to copy in the list.

2)Tap [COPY] button.

3)Copy is made at the end of the list.

[EDIT]

You can edit WAX.

Actual operation will be described later.

[DELETE]

You can delete WAX.

> ⚠ NOTICE
>
> You cannot recover the WAX once you deleted.

17-4-1. HOW TO SET AND EDIT WAX

S/N	MAKER	NAME	TYPE	COLOR
001	KERR	ACCU TURQUOISE BLUE	FLAKES	

1) MAKER

Name of manufacturer.

The number of letters is not limited but maximum 10 letters from the end will be on display.

2) NAME

Name of WAX (shown on detailed setting in JOB)

The number of letters is not limited but maximum 10 letters from the end will be on display.

3) TYPE

Type of WAX.

The number of letters is not limited but maximum 10 letters from the end will be on display.

4) COLOR

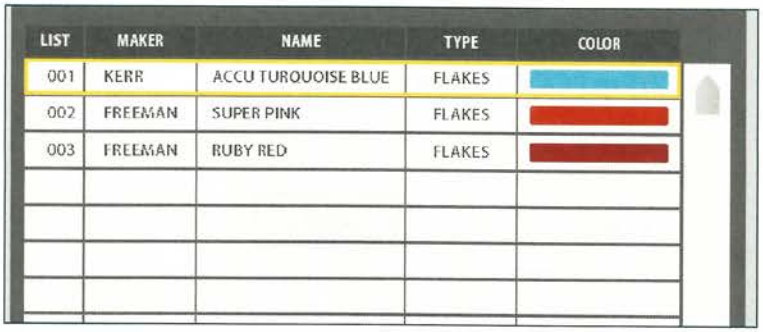
Color of WAX. (shown on desk top)

You can select from 16 colors

<How to set WAX>

1) Select WAX

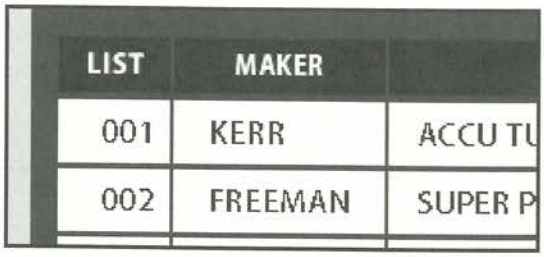
Tap "LIST number" to select.



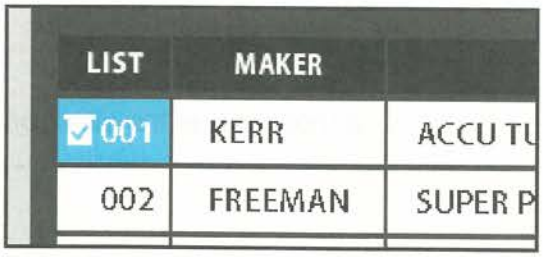
Selected WAX line 001

2) Tap SELECT button

Color changes in blue with check mark added on LIST number



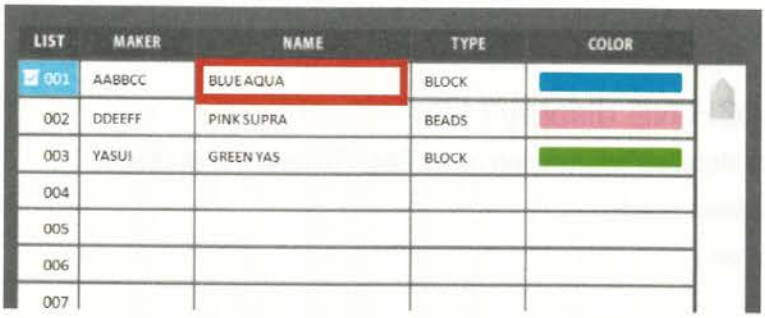
Before selected



After selected

<How to edit WAX>

1) Select and tap one of items (cell) to edit in the list.



LIST	MAKER	NAME	TYPE	COLOR
001	AABBCC	BLUE AQUA	BLOCK	
002	DDEEFF	PINK SUPRA	BEADS	
003	YASUI	GREEN YAS	BLOCK	
004				
005				
006				
007				

Selected item

2) Tap EDIT button.

3) Edit with displayed keyboard.

4) Tap OK button on keyboard to confirm.

17-5. MACHINE

<MACHINE display (1/3) >

You can check detailed machine specification, Configuration of IP address, Subnet mask and Mac address. Switching connection of ICR-d, Compensation of Z axis, Clamp size,

<MACHINE display (2/3)>

You can set preliminary-heating at this window.

<MACHINE display (3/3)>

You can set MAC address and select machine accuracy or operation speed here in this window.

<How to open MACHINE display>

1) Tap CONFIG tab to open CONFIG menu.

2) Tap MACHINE icon to open MACHINE display

You can change page by taping NEXT or BACK button.

17-5-1. MACHINE display (1/3)

You can check detailed information of ALTIMA firmware and others.

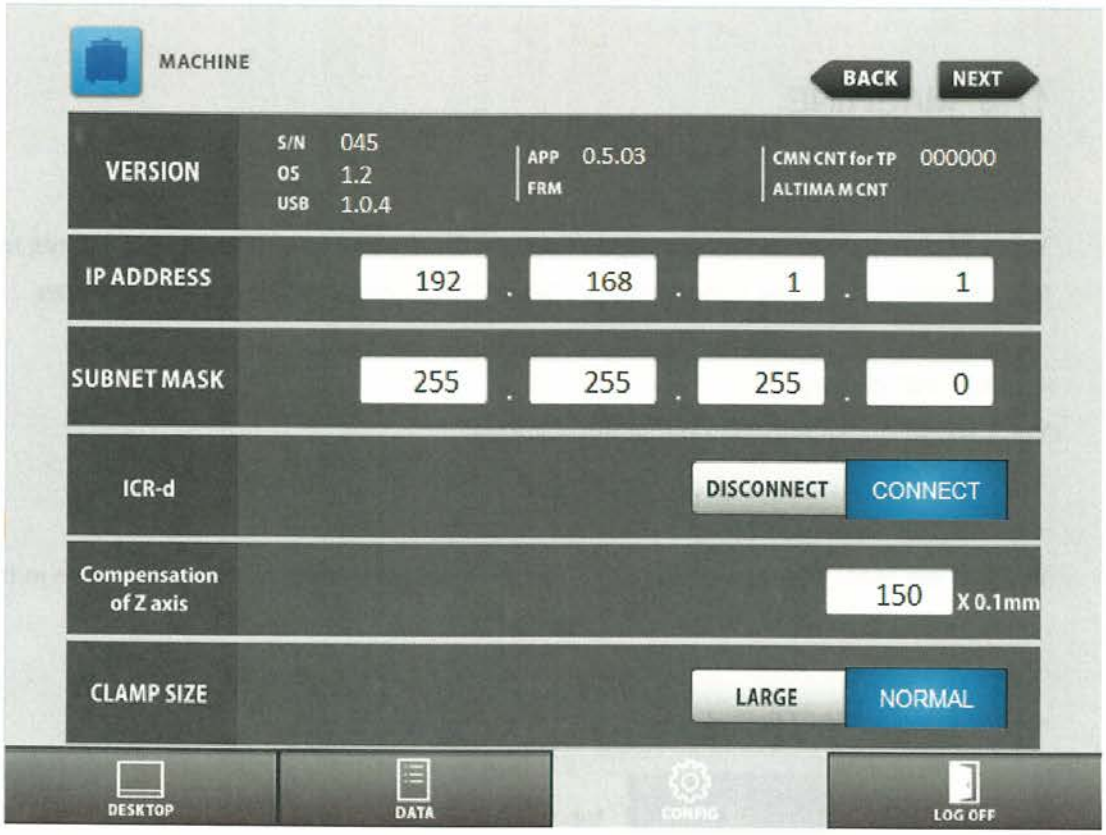
IP address, Subnet mask,

ICR-d connection

<How to open MACHINE display (1/3) >

1) Tap [CONFIG] button.

2) Tap MACHINE icon to open MACHINE display.



MACHINE display (1/3)

17-5-2. MACHINE display (2/3)

You can set preliminary-heating here at this window.

It is very effective with schedule function.

<How to open MACHINE display(2/3) >

1) Tap CONFIG

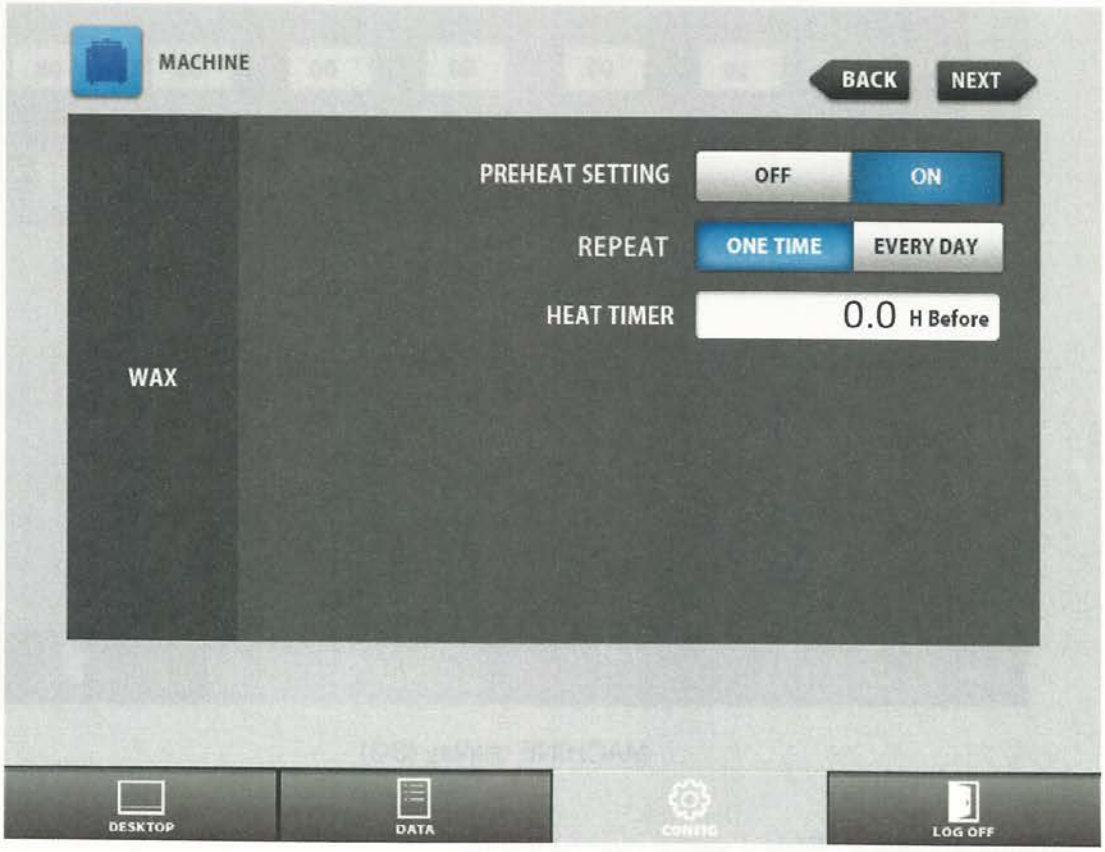
button to open CONFIG menu.

2) Tap MACHINE

button to open MACHINE display (1/3)

3) Tap arrow key

to open MACHINE display (2/3)



MACHINE display (2/3)

17-5-3. MACHINE display (3/3)

You can check MAC ADRESS of this machine.

You can select accuracy or speed of operation here.

< How to open MACHINE display (3/3)

1) Tap CONFIG

button to open CONFIG menu.

2) Tap MACHINE

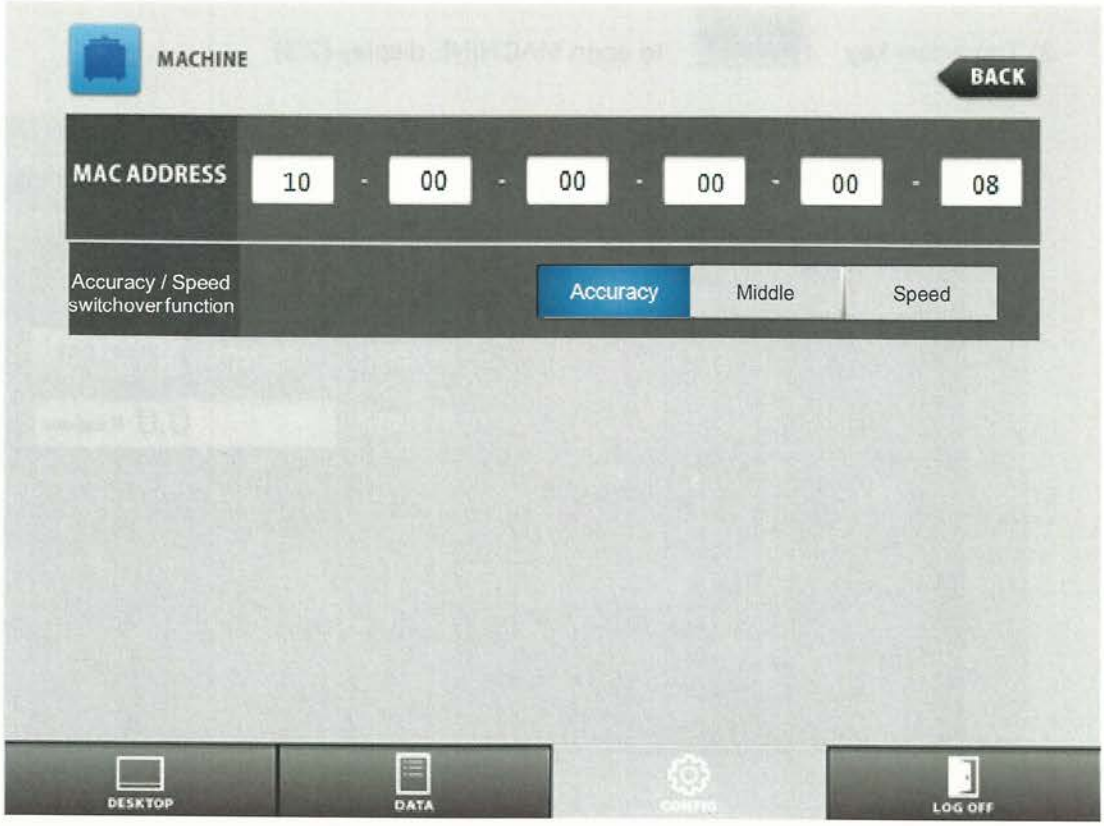
button to open MACHINE display(1/3)

3) Tap arrow key

to open MACHINE display(2/3)

4) Tap arrow key

to open MACHINE display(3/3)



MACHINE display (3/3)

* What is Accuracy / Speed switch over function?:
ALTIMA's biggest characteristic is accuracy and it takes longer time to achieve on each action in process. However you can chose priority at this display.
You can recognize the result at Left upper corner on Desk top window (below)

17-6. DATE&SCHEDULE

You can check and edit operation schedule monthly.

This schedule is for automatic pre-heating.(for Supervisor only)

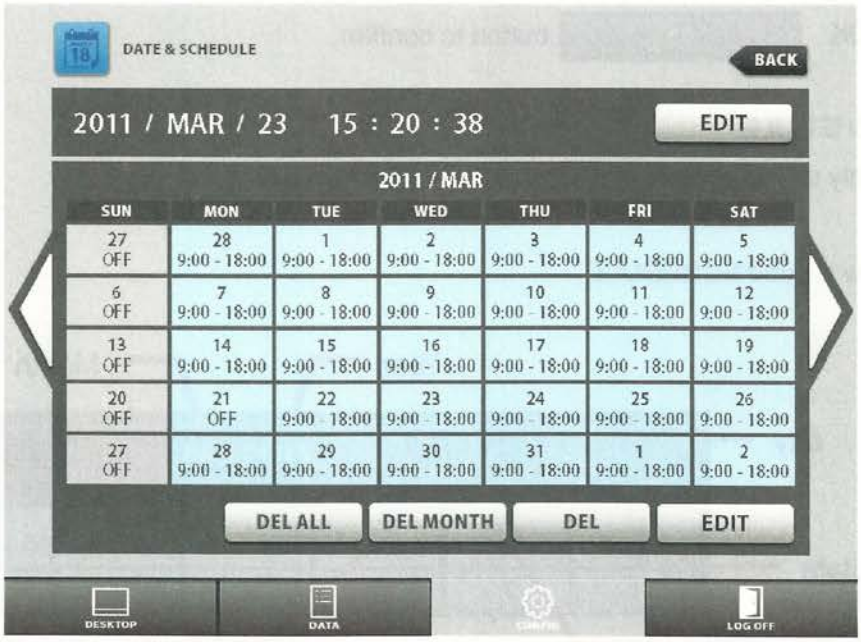
<How to open "DATE&SCHEDUL" window>

1) Tap CONFIG

tab to open CONFIG menu.

2) Tap DATE&SCHEDULE

icon to open.



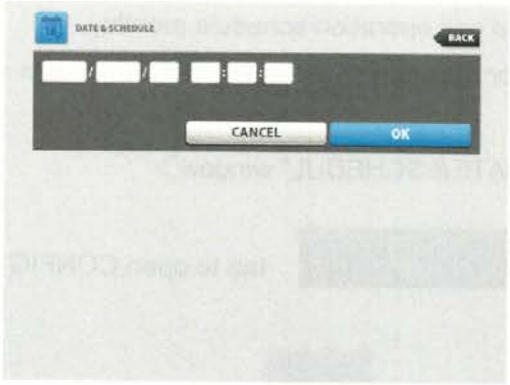
17-6-1. HOW TO READ SCHEDULE

You can check and delete schedule monthly.

1) Present date and time.

displayed on the top of the page.

Tap EDIT button to edit.



Edit window

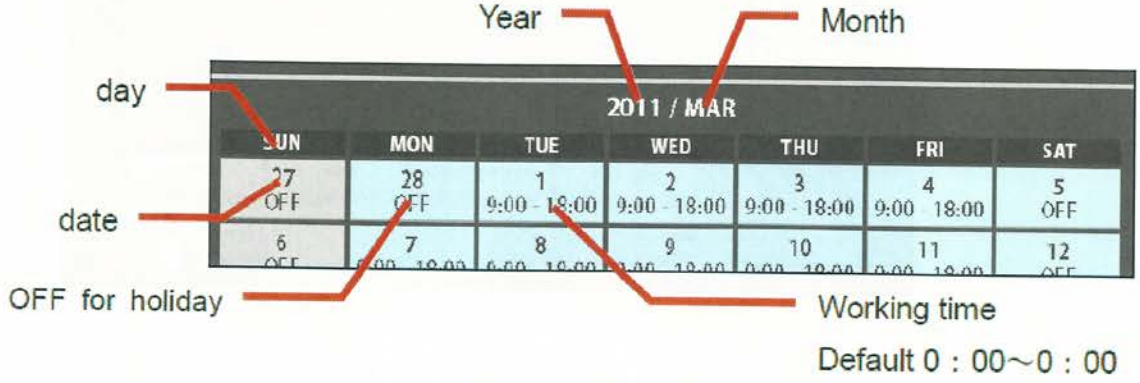
Select and tap item to be edited with displayed keyboard.

Tap OK button to confirm.

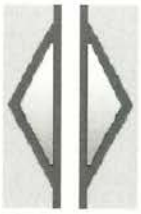
2) SCHEDULE

Monthly schedule is displayed on the middle of window.

<How to read SCHEDULE>



[Arrow key]



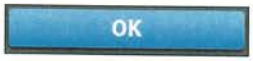
Arrow to Right for next page, arrow to Left for previous page.

3) How to operate

> **NOTICE**
>
> You cannot recover the WAX schedule once you deleted.

[DEL ALL]

You can delete all of schedule on the selected date and after of the year.

Tap OK 

button in confirmation window to delete all.

* Example

Select 7th May 2012 and Tap "DEL ALL"

button…

The schedule on 7th May 2012 and after is deleted.

The schedule before 6th May 2012 is not deleted.

The schedule on 1st Jan 2013 is not deleted.

[DEL MONTH]

You can delete all of schedule on the selected date and after of the month.

Tap OK

button in confirmation window to delete month.

* Example

Select 7th May 2012 and Tap "DEL MONTH"

button…

The schedule on 7th May 2012 and after is deleted.

The schedule before 6th May 2012 is not deleted.

The schedule on 1st Jun 2012 is not deleted.

[DEL]

You can delete schedule on the selected date.

Tap OK

button in confirmation window to delete day.

* Example

Select 7th May 2012 and Tap "DEL"

button...

The schedule on 7th May 2012 is deleted.

[EDIT]

You can edit schedule on the selected date.

17-6-2. HOW TO REGISTER SCHEDULE

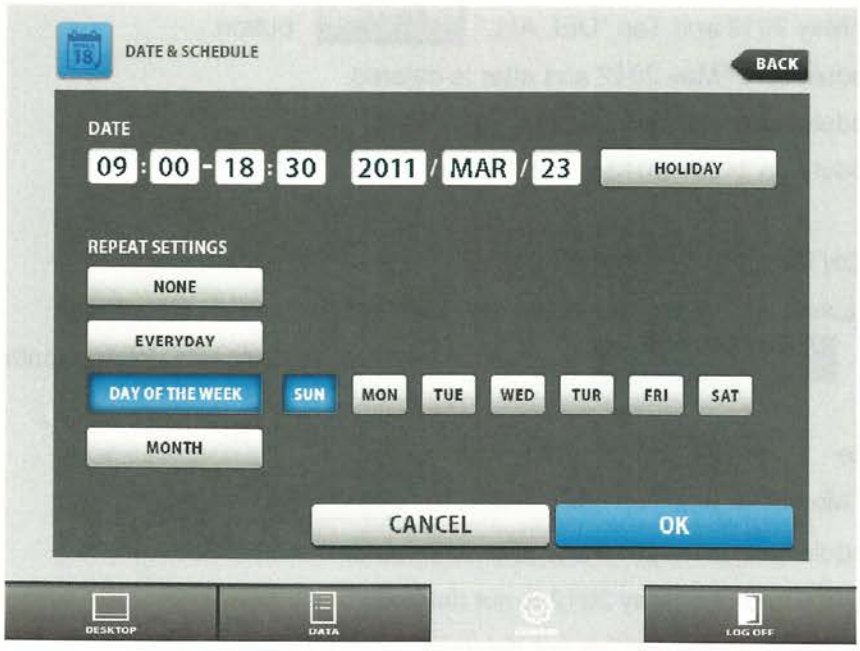
<How to register schedule>

1) Select the date and tap EDIT button to open edit window

2) Register time for heat ON and OFF tapping small frame on left upper corner

3) Tap OK

button to save the edit and go back to DATE & SCHEDULE window.



<Detail of register schedule>

1) DATE

Edit date and time.

The default time for working time is 0:00 - 0:00

Keyboard window will open by tapping time frame.

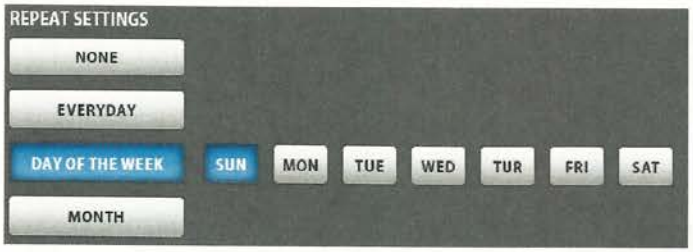
2) HOLIDAY

You can set the day as holiday by tapping this button.

The working time changes to "OFF" when you set holiday.

Holiday

3) REPEAT SETTING



You can set same working time for other day at once.

Holiday setting as well.

[NONE]

No repeat setting, only for the day selected

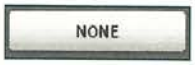
.※You cannot select this button with EVERYDAY

and DAY OF THE WEEK

at a same time.

[EVERYDAY]

You can set same working time on all of days in the month as well as holidays.

.※You cannot select this button with NONE 

and DAY OF THE WEEK

at a same time.

[DAY OF THE WEEK]

You can set same working time on the day selected by these buttons (Holidays also)

.※You cannot select this button with NONE

and EVERYDAY

at a same time.

[MONTH]

This setting must be done with combination of EVERYDAY

button and

DAY OF THE WEEK button.

You can set same working time on all of days in the year as well as holidays when you select EVERYDAY

button at a same time.

You can set same working time on the day selected by these buttons (Holidays also)

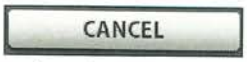
when you select DAY OF THE WEEK

button at a same time.

4) Operation

[OK]

Tap this button to save edit and go back to "DATE & SCHEDULE" window.

[CANCEL] 

Tap this button to cancel and go back to "DATE & SCHEDULE" window.

NOTICE

ALTIMA does not heat when you log off without schedule registered.

17-7. IC TAG

Here you can edit name of IC tags.

You can check shot number with the rubber mold. (for Supervisor only)

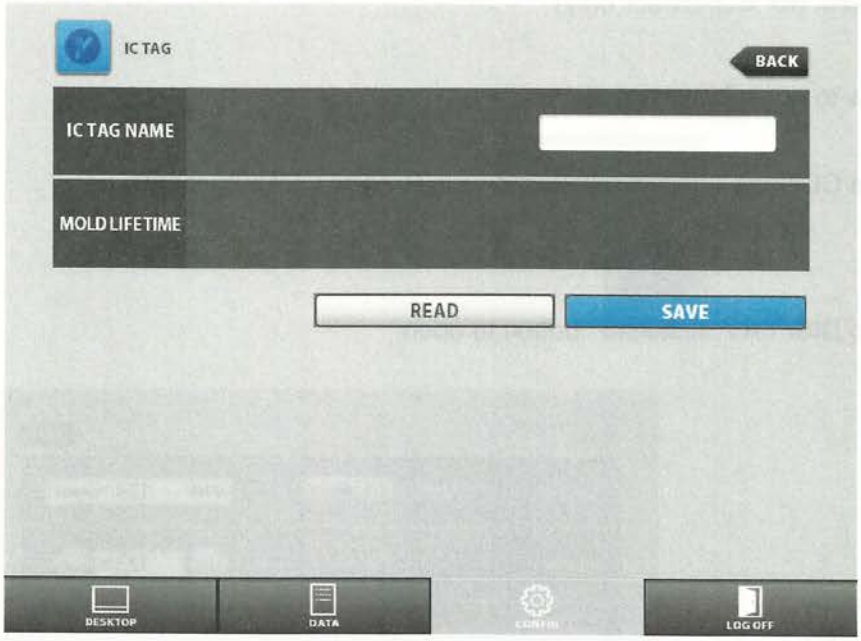
<How to open IC TAG window>

1) Tap CONFIG

tab to open CONFIG menu.

2) Tap IC TAG

button to open.



3) IC TAG NAME

You can edit name of IC tag here.

The maximum letters up to 12.

Tap this frame to open keyboard.

4) MOLD LIFE TIME

You can check how many times the rubber's been used.

You cannot edit the number.

5) Operation

[READ]

Tap this button to read IC tag and show IC tag name on the frame.

6) [SAVE]

Tap this button to write the name in IC tag.

17-8. DISPLAY

You can switch suspension power ON or OFF, adjust brightness, desk top window and unit of measure. (for Supervisor only)

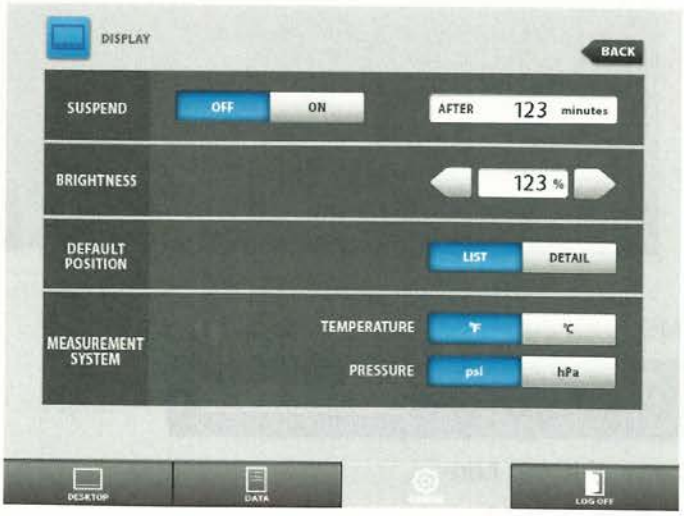
<How to open DISPLAY window>

1) Tap CONFIG

tab to open CONFIG menu.

2) Tap DISPLAY

button to open.



3) SUSPEND

You can activate Automatic power OFF function.

Select ON for activate, timer can be set from 1-999 minutes.

4) BRIGHTNESS

You can adjust the brightness of the display.

Tap button to decrease, tap button to increase.

You can also long tap for continuous adjusting.

You can also tap number and open keyboard to set directly.

The range is 0 -100%

5) DEFAULT POSITION

You can change default window.

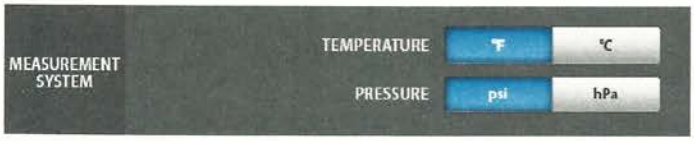
You will see LIST window when you turn the power ON by selecting "LIST" button.

You will see DETAIL window when you turn the power ON by selecting "DETAIL" button.

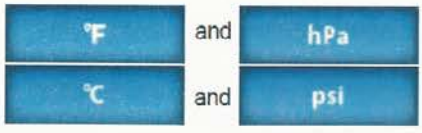
『LIST』 window

『DETAIL』 window

6) MEASUREMENT SYSTEM



You can change measurement system.

Combination of  not allowed.

Combination of not allowed.

All of setting value of recipe will be converted by the unit selected.

17-9. LANGUAGE

You can select language

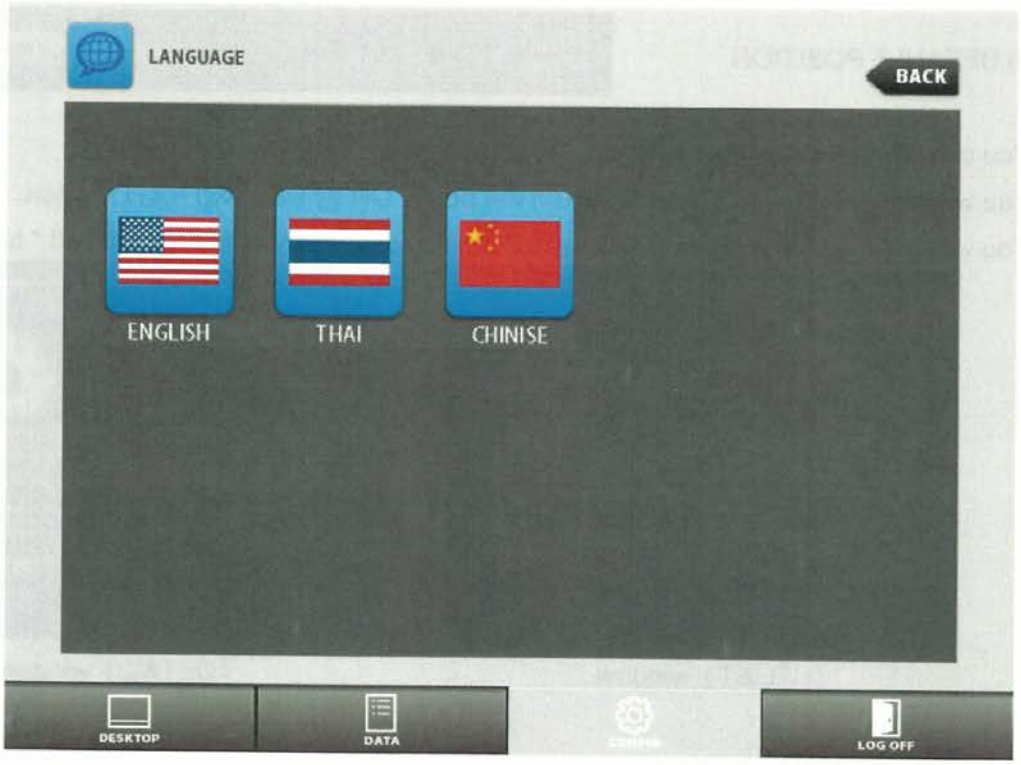
<LANGUAGE window>

1) Tap CONFIG

tab to open CONFIG menu.

2) Tap LANGUAGE

button to open.



<How to switch language>

1) Just tap one of the icons you want.

※You have to reboot to make the result active .

17-10. PAYMENT PASSWORD

You can enter Passwords for Monthly payment here. Only for customers who use this system.

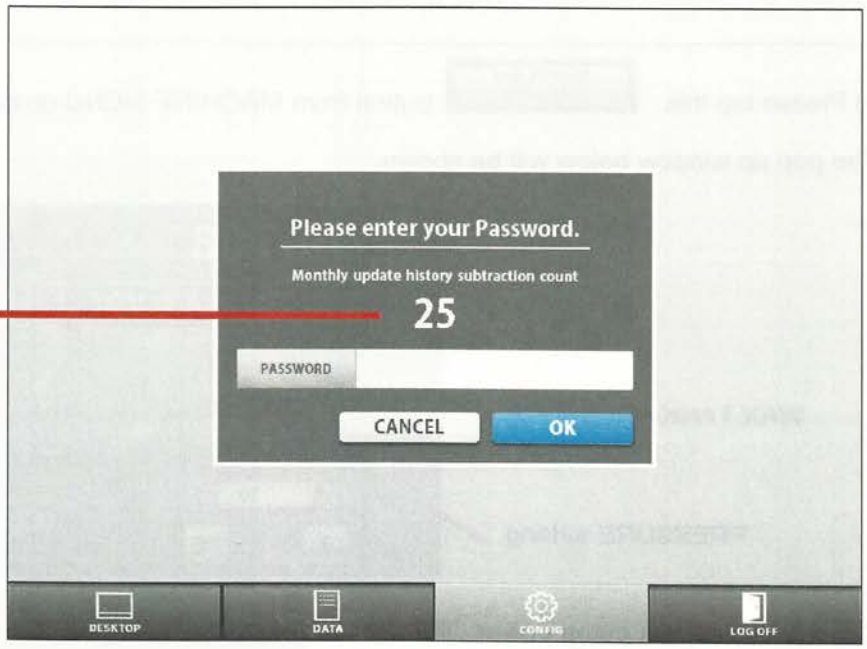
<How to open PAYMENT PASSWORD window>

1) Tap CONFIG

tab to open CONFIG menu.

2) Tap PAYMENT PASSWORD

button to open.



The rest of months to be paid

3) PASSWORD

You can enter password.

4) Monthly update history subtraction count

The rest of months to be paid.

17-10-1. WHAT IS MONTHLY PAYMENT?

Monthly payment system is to pay machine payment every month.

ALTIMA stops working if you forget to pay.

ALTIMA accepts anytime for any months not only every month one by one.

18. AFTER FINISHING INJECTION WORK

18-1. REMOVE WAX from VAC tank

When you finish the day's job on ALTIMA, please drain wax from vacuum tank.

<How to drain wax from vacuum tank>

> **CAUTION**
>
> **Please be careful handling this operation as wax is very hot.**

1) Please tap this

button from MACHINE MENU on desk top window.

The pop up window below will be shown.

2) Turn the vacuum pump power OFF.
3) Check if the lid is completely closed.
4) Three way valve must be horizontal position.
5) Tap arrow key to set pressure setting 10kPa(psi)
6) Put wax receiver anything like bowl or pan. (the space 160mm width, 90mm height)
7) Open drain valve on vacuum tank on the right. (Vertical position to open)
8) Increase the pressure gradually.

Three way valve and wax receiver

* Minimum pressure should be set to avoid splashing of drain wax.
* Reduce pressure when finishing.

9) Set pressure 10kPa(psi) again after draining.
10) Close drain valve (Horizontal position to close)

11) Let three way valve in vertical position.

12) Tap CLOSE

button.

18-2. REMOVE WAX from WAX tank

When you want to use another kind of wax, please drain wax from wax tank as follows.

<How to drain wax from wax tank>

CAUTION

Please be careful handling this operation as wax is very hot.

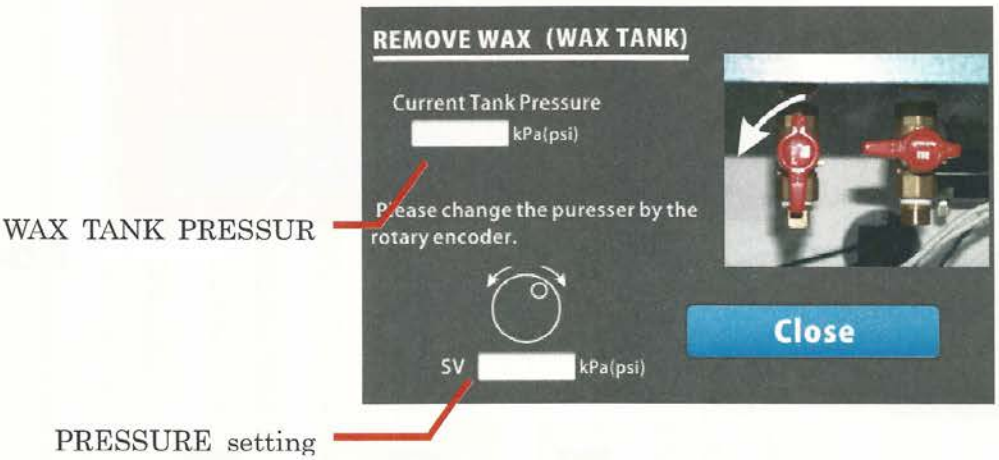
1) Please be sure that wax inside is dissolved enough.

2) Check if the lid is completely closed.

3) Tap this

button from MACHINE MENU on desk top window.

The pop up window below will be shown.



4) Tap arrow key to set pressure setting 10kPa(psi)

5) Put wax receiver anything like bowl or pan. (the space 160mm width, 90mm height)

6) Open drain valve on wax tank on the left. (Vertical position to open)

7) Increase the pressure gradually.

* Minimum pressure should be set to avoid splashing of drain wax.

* Reduce pressure when finishing.

8) Set pressure 10kPa(psi) again after draining.

9) Close drain valve (Horizontal position to close)

10) Tap CLOSE

button.

19. TROUBLE SHOOTINGS

19-1. ERROR MESSAGES

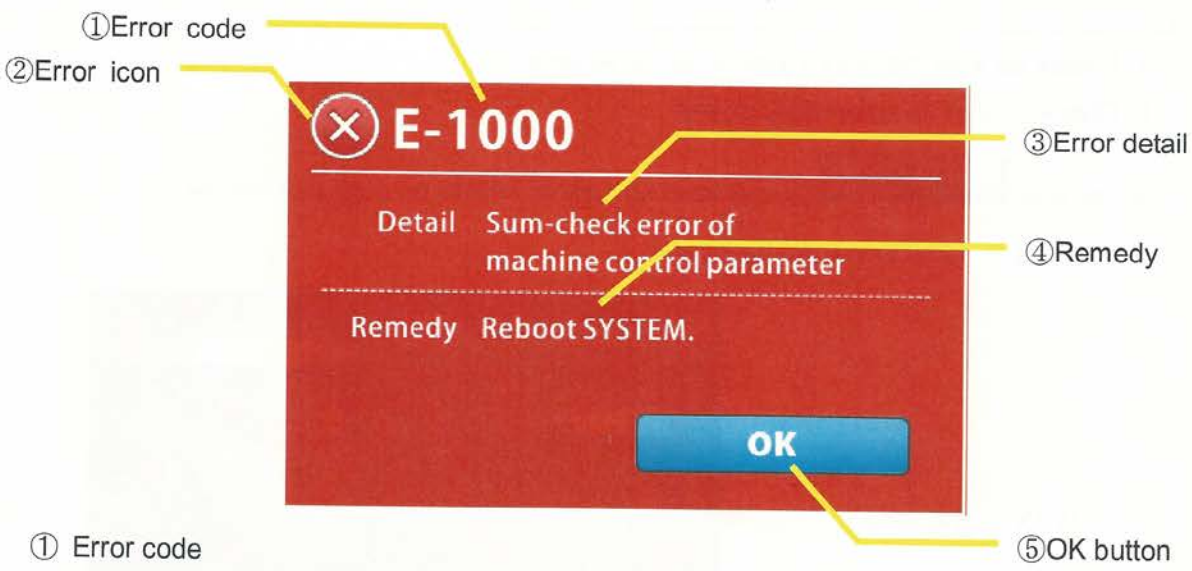
ALTIMA shows messages when something happens.

You cannot operate ALTIMA while message is displayed.

Injection will be suspended when error detected.

Injection will not be suspended when only warning is displayed.

Example of error message



① Error code

Code of error.

② Error icon

3 kinds of icons will be shown Error, warning, information.

③ Error detail

Detail of error.

④ Remedy

Countermeasures.

⑤ OK

Tap OK button to go back to previous page.

19-2. ERROR CODE LIST

Category	Error code	Level	Description	Remedy
Starting / Maintenance	0739	Error	Vacuum error at MAX VAC LEVEL, MACHINE MENU	Check pump, electric supply and condition, tubings
	1000	Error	Sum-Check error of machine control parameter	Reboot
	1001	Error	Setting-Range error of machine control parameter	Check parameter setting range
	1010	Error	Failure of zero reset for nozzle.	Initialize (vacuum pump OFF)
	1011	Error	Failure of zero reset for clamp unit	Check YV03 (exhaust)
	1012	Error	Failure of zero reset in the tank	Check YV03 (exhaust)
	1020	Error	Failure to measure the remaining wax	Air leak, exhaust error, replace YV01
	1021	Warning	Wax level is getting low	Add wax
	1031	Error	User USB flash drive write error	Replace USB flash drive
	1032	Error	Capacity error on USER USB flash drive	Delete some files for more room
	1033	Error	System USB flash drive write error	Call distributor
	1035	Error	DATA USB flash drive write error	Call distributor
	1036	Error	USER USB flash drive format error	Follow the pop up message
	1038	Error	ICR-d communication error	Check wiring, reboot, call distributor
	1041	Error	USER authority injustice on JOB LAN MODE	Remove USB flash drive
	1045	Error	IP or MAC address setting error	Try to set again, call distributor
	1049	Error	Different wax detected when' Machine replacing' at JOB LAN MODE	choose another machine
	1050	Error	Different clamp size detected when' Machine replacing' at JOB LAN MODE	choose another machine
	1051	Error	Time out error with WaxNet	Check LAN connection
	1052	Error	No JOB found when down lording JOB from WaxNet	Create JOB at WaxNet
	1053	Error	Time out error at pre-heating.	Check heater
	1054	Error	SYSTEM USB flash drive broken	Follow the pop up message
	1055	Error	SYSTEM USB flash drive 1 broken	Follow the pop up message

	1056	Error	SYSTEM USB flash drive 2 broken	Follow the pop up message
	1057	Error	Replacing SYSTEM USB flash drive	Follow the pop up message
	1058	Error	Data copy failed	Replace USB flash drive
	1059	Error	Injustice position of SYSTEM USB flash drive	Replace USB flash drive
	1060	Error	Starting failure	Follow the pop up message
	1090	Warning	Consumption of potentiometer (Z)	Order spare part
	1091	Warning	Consumption of magnetic valve	Order spare part
	1093	Warning	Maintenance Recommendation (Thermister)	Order spare part
	1094	Warning	Maintenance Recommendation (Gasket)	Order spare part
	1095	Warning	Maintenance Recommendation (Concern with air leakage)	Check tubings and fittings
	1096	Warning	Consumption of potentiometer (Y)	Order spare part
	1003	Error	Internal clock error	Call distributor
	1003	Error	FTP server start error	Call distributor
Before operation	2000	Warning	Temperature Warning (Wax tank)	-
	2001	Warning	Temperature Warning (Nozzle)	-
	2002	Error	Unreceived the recipe	Retry, Call distributor
	2003	Error	Different wax from recipe	Follow the pop up message
	2004	Error	Different clamp size at start button	Follow the pop up message
Temp. control	2200	Error	Heater error Wax tank	Check heater
	2201	Error	Heater error nozzle	Check heater
Control Clamp position	3100	Error	Stage UP / DOWN error	Call distributor
	3110	Error	Unsuitable setting (Mold position)	Set mold in correct position
	3120	Error	Clamp position error Y axis	Call distributor
	3190	Error	Internal error on Stage Control	Call distributor
	3191	Error	Internal error on Y axis	Call distributor
Control Clamping	3200	Error	CLAMP(1) error	Check pressure supply and tubings
	3201	Error	CLAMP(2) error	Check pressure supply and tubings
	3202	Error	CLAMP Discharge error	Air leak
	3203	Error	C-TIME error	Try to set again, call distributor
	3290	Error	Internal error on Clamp Control	Call distributor
Control forward	3300	Error	Stage "FORWARD" error	Call distributor
	3301	Error	Stage "FORWARD" discharge error	Check tubings and fittings
	3390	Error	Internal error on Forward Control	Call distributor

Control nozzle	3400	Error	Pressure error	Call distributor
	3401	Error	P-TIME error	Try to set again, call distributor
	3404	Error	Vacuum Performance Decrement	Check pump, electric supply and condition, tubings
	3405	Error	Vacuum leakage at start button	Check pump, electric supply and condition, tubings
	3490	Error	Internal error on Nozzle Control	Call distributor
Operation panel	4000	Error	Command Format Error	Call distributor
	4001	Error	Undefined command receiving error	Call distributor
	4002	Error	Command parameter error	Call distributor
	4003	Error	BCC error	Call distributor
	4004	Error	Communication error	Call distributor
	4005	Error	Mode is not correct	Call distributor
	0731	Warning	Picture down lord suspended by too big sized file	Resize it

** Contact distributor about errors not mentioned above or not solved by this.

19-3. EMERGENCY STOP BUTTON

Please push Emergency stop button in front of ALTIMA, when you want to stop the function of heating and shooting.

The button will be fixed unless you release it by manual. Nothing can be operated on this condition.

IMPORTANT

Please confirm safety before reset emergency very carefully.

Pop up window when emergency

1) Turn the emergency button on the arrow direction to unlock the knob.

Emergency button

2) Tap OK button.

** You can ask our distributor for better service with smoother and precise investigation by reporting them log files from ALTIMA.

How to pick up log files:

Put formatted USB flash drive into slot 2.

Tap HELP button located on the left upper corner on desk top window.

The button will be changed to REC ● button.
The black circle ● turns red ● when tap again.

Push start button to shoot and pick the log file up.
Remove USB flash drive from slot 2 to report.

20. CONSUMPTIONS

ALTIMA has some consumption as follows;

1) LCD

This is also consumption as well as back up light mentioned at 4-10, 8).

It is possible to have some small defective like dot omission or spotting sometimes happens from the very beginning or in a few years.

Please note those defective are completely exempt as well known as common sense among general industry market.

2) Solenoid valves

The purpose of wax flow control in high temperature is very hard for general industrial solenoid valves. So this is also consumption not as like the one installed on previous model.

3) Thermisters

4) Rubber sealing materials

On wax pot and inside of valves.

5) DC power supply

Depending on the quality of electricity, it can be.

6) USB flash drive

Flash drive cannot store data very long period.

Please be sure to keep copy (back up) as mentioned at 10-3.

7) Rotary potentiometer

This is a kind of precise detector of Z axis for MOLD POS.

According to the specification of manufacturer, the life time of this part for the purpose on ALTIMA would be a few years.

* Please ask your distributor for detailed information.