

# ICE CREAM MACHINE



**INSTRUCTION MANUAL**

## I. Basic parameter

| Model   | Size(L x W x H) | Voltage/Frequency | Power | Net Weight |
|---------|-----------------|-------------------|-------|------------|
| MK-4800 | 24*64*65CM      | 110-220V/50~60Hz  | 500W  | 38KG       |
| MK-5800 | 40*68*64CM      | 110-220V/50~60Hz  | 1400W | 92KG       |
| MK-6800 | 40*68*64CM      | 110-220V/50~60Hz  | 1500W | 100KG      |
| TK-1500 | 30*70*71CM      | 110-220V/50~60Hz  | 1200W | 100KG      |
| MK-129  | 67*73*133CM     | 110-220V/50~60Hz  | 1800W | 100KG      |
| MK-836  | 67*73*133CM     | 110-220V/50~60Hz  | 2200W | 140KG      |
| TK-938  | 67*73*133CM     | 110-220V/50~60Hz  | 2000W | 140KG      |
| TK-948  | 67*73*133CM     | 110-220V/50~60Hz  | 2200W | 165KG      |
| TK-968  | 67*73*133CM     | 110-220V/50~60Hz  | 3000W | 180KG      |
| TK-988  | 67*73*133CM     | 110-220V/50~60Hz  | 3700W | 200KG      |

## II. Working environment and mix requirement

As a commercial use ice cream machine the following conditions would be required:

This machine should be set in the place where can dissipate heat and ventilate well.

The machine should be far from direct sunshine and heat source. The heat dissipating side o the machine should be no closer than One meter to the wall. And the other sides should be keep a space of at least 0.3 meter to the wall.

Try not place this machine in a dusty environment.

Working environment temperature: 35.6F---95F(5~35°C)

Mix temperature: 35.6F---95F(5~35°C)

Notice: Working temperature and mix temperature may effect the freezing time, capacity and production of this machine.

### III. Electric power source

Voltage: 115v

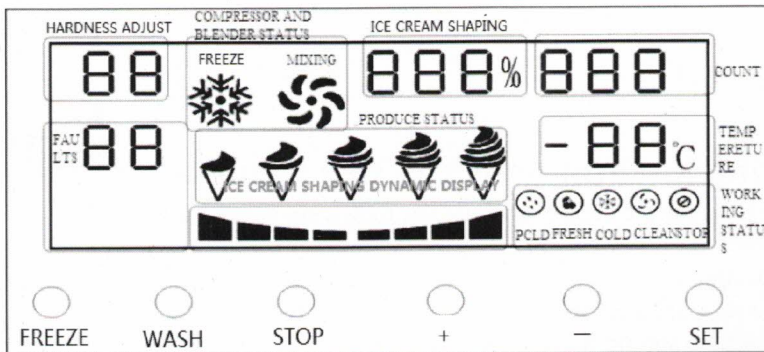
Frequency: 60HZ

### IV. Functional Features

1. Intelligent motor speed identification: It can automatically identify and adjust the beater speed to fit a round speed range from 80r/m to 1000r/m motors.
2. 16 ice cream hardness settings: You can set the hardness suitable for you.(Default setting is 3)
3. Ice cream shaping shown in percentage(%), the ice cream shaping process in display dynamical
4. Fresh function(Precooling) is optional: Hopper pre-cooling is optional to keep mix in fresh temperature.
5. setting functions: To allow the user set the ice cream processing very flexibly.
6. Ice cream cone dispensing counting: It can show how many ice cream cones you have dispensed.

### V. Operation instruction

Display board



Display board

Nine area: gear area, compressor and blender working situation, hardness area, process of making ice cream area, fault code area.

(1) Amount of ice cream cone area

This area is for showing the info about the amount of ice cream cone, when we enter into the parameter setting condition, it will show the modification data.

(2) Temp display area

This area is for display the temp of cylinder.

(3) Working status indication area "Precool" means the precooling system, if the light is on, then the function is on, if the light is off, then the function is off also. if the precooling compressor is working, then the light will twinkle. Precooling function is optional, please check with your dealer if your machine with precooling function

"Fresh" means the fresh function.

(4)、the process of making ice cream indication

area. Under the mode of FREEZE:

When Hardness lower than 20%, the first ice cream light is twinkling, others are on. When Hardness lower than 20% ~ 39%, the second ice cream light is twinkling, others are on

When Hardness lower than 40% ~ 59%, the third ice cream light is twinkling, others are on

When Hardness lower than 60% ~ 79%, the fourth ice cream light is twinkling, others are on

When Hardness lower than 80% ~ 99%, the fifth ice cream light is twinkling, others are on

When Hardness up to 100%, all of the ice cream light is twinkling.

(5) Compressor and blender working situation indication area When we are doing the cleaning job, the mixing light is on.

When we do the produce or fresh job, the mixing light and produce light are on together.

(6) Hardness indication area

This area will show the hardness % of the ice cream when we produce or fresh. 100% means the ice cream is ready.

## VI. Operation of button

MAIN SWITCH: To give the machine power and let it standby ready to work.

FREEZE: To turn on the compressor and stirring motor to start making ice cream.

Push this

button and the machine to enter into Freeze mode. The motor will start first and after 5 seconds the compressor start.

CLEAN: To turn on the motor and drive the auger. It can (1) stirring the water to wash the inside cylinder, and (2) to stirring the mix in cylinder when the compressor is in pause. STOP: To stop working and make the machine standby + : 1. Push this

button for 2 seconds

to let the hardness display icon flash, then push gain to add the hardness. 2. When you enter the SET mode, push + or — to adjust the parameter settings. — : Push this button for 2 seconds to let the hardness display icon flash, then push gain to add the hardness. 2. When you enter the SET mode, push + or — to adjust the parameter settings.

SET : Push this button for 5 seconds to enter into parameter setting mode.

## VII. Working mode

(1) Standby mode, means when when you turn on the main switch and set up the machine and before press any button.

(2) Cleaning mode, the motor is running and the clean indication light is on. After 5 minutes, it will shut off the motor automatically.

(3) Produce mode, the produce indication light is on, then the motor will start to work, 5 seconds later, big compressor will start up automatically. When the ice cream is ready, motor will shut

off, then compressor off. After 5 minutes, motor and compressor restart automatically.

(4) Fresh mode, when we start the fresh system, it will carry out the produce action every 2 hours under the standby pattern. Every time less than 10 minutes. (Optional according to your machine)

## VIII. Parameters

The intelligent control board could set 9 groups of parameter, including password input, automatic restart time, refrigeration timeout time, freshness interval, precooling temperature, reset on ice cream counting, hardness correction factor, under voltage maintenance and speed automatic identification.

When order the machine, you could choose the menu above, or designate the parameters if they need password, even all of them don't need. If you don't need a password to input

menu, the password protection function would be failure. The factory default menu number is n00-n08, which to input the password. n00 means blank for password. when we switch the menu, we can use n00-n08 in order, if the next menu is unavailable, then the switch menu progress

will turn back to the main menu as "n00-n08", for example, if n01 is unavailable, from n00 to n01, it will switch to n02 directly. under the standby situation, press "set up" over 5 seconds, then we can get into n00 menu.

Remark: before power on again, the password is valid all the time.

| number | operation           | type                   | remark                                                                                                                                                               |
|--------|---------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n00    | Use "add" and "sub" | Enter password         | Password is 003                                                                                                                                                      |
| n01    | Use "add" and "sub" | automatic restart time | unit: minute; under the produce pattern, finish the production and no dispenser, we can reset the automatic restart time. Press "set up" to switch to the next menu. |

|     |                                                             |                                    |                                                                                                                                                                                                                                                                                                                                  |
|-----|-------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n02 | Use"add"<br>and "sub"                                       | Produce<br>over time               | Unit:minute;under the produce pattern, the working time of compressor is over than the setting time.but the ice cream cant be hard enough as the certain one.what's more, during the produce mode no discharge,then the produce over time fault will happen.Press "set up" to switch to the next menu.                           |
| n03 | Use"add"<br>and "sub"                                       | Fresh ness<br>interval             | Unit:minute,under the freshness system and standby mode,the fresh system will remain the quality of the ice cream material inside the cylinder, and set time for fresh interval.Press "set up" to switch to the next menu.                                                                                                       |
| n04 | Use"add"<br>and "sub"                                       | Precool temp                       | Unit: C degree,under the precooling system,this data control the time for precooling system boot.when the temp up to the top(setting),and over the specific time The precooling compressor will start.when the temp down to the lowest limit(setting), precooling compressor shut off.Press "set up" to switch to the next menu. |
| n05 | Press"add"<br>"sub"at the<br>same time<br>over<br>5seconds. | Amount of<br>ice<br>cream cone     | It will indicate the amount of ice cream cone that be taken out.                                                                                                                                                                                                                                                                 |
| n06 | Use"add"<br>and "sub"                                       | Hardness<br>modification<br>factor | This number is use for new machine setting.hardness modification factor is for all the data of pulley speed.the bigger number ,the harder ice cream.Press "set up" to switch to the next menu.                                                                                                                                   |

|     |                                                             |                                          |                                                                                                                                                                                                         |
|-----|-------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| n07 | Use"add"<br>and "sub"                                       | Low volt<br>protection<br>data           | Unit : V, Press "set up" to switch to the<br>next menu.                                                                                                                                                 |
| n08 | Press"add"<br>"sub"at the<br>same time<br>over<br>5seconds. | Speed<br>automatic<br>identificat<br>ion | If we have identify the pulley speed.it will<br>show the rpm.<br>if not,or the rpm number has been<br>deleted.it will show"<br>---". Press "set up" to exit to the<br>parameter setting.<br>(Remark:1 ) |

Remark :after we replace the motor or other parts that related with the pulley speed,we have to execute the pulley speed identification one time,enter into"n08"menu,deleted the original speed data.then we start the cleaning system over 10 mins,speed automatic identification is done.

Note:we have to start the cleaning system to carry out the motor pulley speed identification work under the situation of hopper without any material.

## IX.Common faults and solutions

When the system appear faults, all the output will be closed and will display the fault code, as the same time the buzzer will alarm. To the common faults listed below.

| Fault code | Troubles                     | Possible Reason        | Solutions                         | Remark |
|------------|------------------------------|------------------------|-----------------------------------|--------|
| 01         | Power supply voltage too low | Input voltage too low  | Allocate power voltage stabilizer |        |
| 02         | Power supply voltage too     | Input voltage too high | Allocate power voltage stabilizer |        |

|    |                                        |                                                                                                            |                                                                                                                                   |                                                       |
|----|----------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
|    | low                                    |                                                                                                            |                                                                                                                                   |                                                       |
| 03 | velocity transducer fault              | 1.install incorrect<br>2.position of magnet on the belt pulley not correct<br>3.velocity transducer damage | 1.consolidate the velocity transducer<br>2.correct the position of the magnet<br>3.replace a same model velocity transducer       |                                                       |
| 04 | Belt slip                              | 2.Blender fault                                                                                            | 1.adjust the belt<br>2.repair the blender                                                                                         |                                                       |
| 05 | Refrigerating not enough               | refrigerating system fault                                                                                 | Recondition refrigerating system                                                                                                  | Part of the                                           |
| 06 | Frozen cylinder                        | 1.ice cream material mix too much water<br>1. Start refrigerating mode when the cylinder empty             | 1.follow the instruction to mix the ice cream material<br>2.strictly prohibit to start refrigerating mode when the cylinder empty | Part of the model without temp checking function      |
| 07 | Freezing cylinder temperature too much | 1、 ice cream material too hot<br>2、 environmental temperature too high                                     | Put the ice cream material into the freezing cylinder when it is cooling                                                          |                                                       |
| 08 | Lack of material of left cylinder      | Protection of left cylinder when lack of material                                                          | Add ice cream material                                                                                                            | Part of the model without low level checking function |
| 09 | Lack of material of right cylinder     | Protection of right cylinder when lack of material                                                         | Add ice cream material                                                                                                            | Part of the model without                             |



|    |                                       |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                   |                                                    |
|----|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
|    |                                       |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                   | low level checking function                        |
| 10 | Timeout shut off                      | <ol style="list-style-type: none"> <li>1. the gear setting is too high</li> <li>2. produce timeout setting too short.</li> <li>3. cooling system fault</li> </ol>                                                                                       | <ol style="list-style-type: none"> <li>1. set the suitable gear</li> <li>2. Modify the produce timeout time</li> <li>3. check the cooling system</li> </ol>                                                                                                       |                                                    |
| 11 | high voltage switch protection        | Compressor voltage too high                                                                                                                                                                                                                             | Recondition refrigerating system                                                                                                                                                                                                                                  |                                                    |
|    | No display after starting machine     | <ol style="list-style-type: none"> <li>1. No electric supply or power plug not insert</li> <li>2. transformer not insert or the wire connect display board with mainboard not insert</li> <li>3. Fuse damage</li> <li>4. Circuit board fault</li> </ol> | <ol style="list-style-type: none"> <li>1. check the power supply</li> <li>2. reinsert the transformer wire or the wire connect display board and mainboard</li> <li>3. replace the fuse after eliminate abnormal</li> <li>4. recondition circuit board</li> </ol> | Checking the PC board should be professional staff |
|    | Display board not clear or incomplete | <ol style="list-style-type: none"> <li>1. the wire connect display board and mainboard not insert</li> <li>2. Circuit board fault</li> </ol>                                                                                                            | <ol style="list-style-type: none"> <li>1. reinsert the wire connect display board and mainboard</li> <li>2. recondition the circuit board</li> </ol>                                                                                                              | Checking the PC board should be professional staff |

### Attentions:

If the hardness degree of machine is set too hard and machine does not stop working, please adjust it and reduce the hardness

in time. If machine is not adjusted in time, machine will stop and come into Auto Stopping Protecting Mode after keeps on working for 25 minutes without taking out ice cream.

When you try new kind of ice cream material, please adjust machine in a proper hardness degree. Working in an improper hardness for a long time will damage machine, and is not in warranty service.

When adjusting machine value, please don't change the rotate speed correcting value to avoid damage normal work of machine.