

## 1.2 INFORMATION ABOUT THE MACHINE



### 1.2.1 General information

Machines intended for indoor use only and for commercial purposes such as ice cream and pastry workshops.

Machine installed on the floor, producing and dispensing Soft Ice Cream, with mix containers accommodated in chilled cabinet.

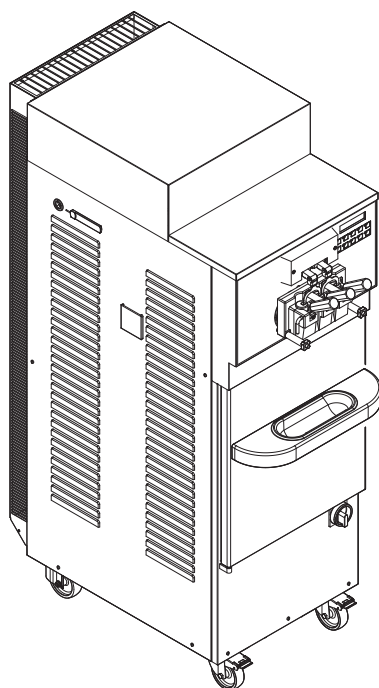
**ICETEAM 1927** recommends to always use high quality mix for ice cream production in order to satisfy your customers, even the most hard-to-please ones. Any saving made to the prejudice of quality will surely result into a loss much bigger than the saving itself. Bearing in mind the above statements, please take heed of the following suggestions:

- Make your mixes yourselves from high quality natural ingredients or buy them from reliable companies.
- Follow closely instructions given by your mix supplier for the preparation of the mixes.
- Do not alter your mix supplier's recipes, by adding, for instance, water or sugar.
- Taste ice cream before serving it and start selling it only if entirely satisfactory.
- Make sure your staff always keeps the machine clean.
- Have your machine always serviced by assistance companies authorized by **ICETEAM 1927**.

### 1.2.2 Machine layout

#### NOTE

*The dimensions reported below may change depending on type of condensation.*



### 1.2.3 Technical features

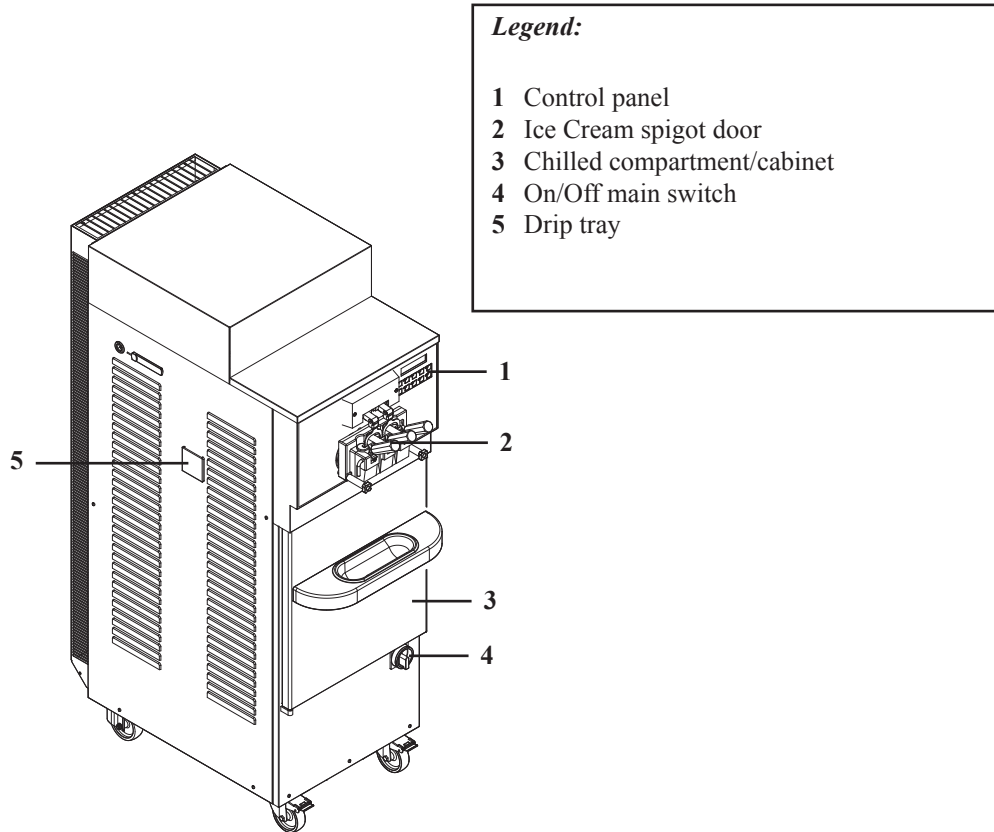
Model	Hourly production kg	Capacity		Flavors n	Electrical supply **			Installed power kW	Condensation	Dimensions			Net Weight kg
		Hopper L	Bag in Box L		Volt	Cycle	Phase			Width	Depth	Height	
603 INOX	60	12+12	10+10	2+1	400	50	3	5	Air/Water	54	90 air 80 water	163	285

\*\* Other voltage are available. For specific values, refer to name plate appliaed on the machine and on first page of this handbook.

*The following characteristics are purely indicative. ICETEAM 1927 reserves the right to make all the changes whenever necessary and without being bound to previous statements to the purchaser.*

*Hourly production may vary depending on the type of mix used, its feeding temperature and the characteristics of the desired final product.*

## 1.2.4 Machine unit location



## 1.3 INTENDED USE

603 E models must only be used conforming with contents of paragraph 1.2.1 "General Information", within the functional limits listed below:

- Voltage:  $\pm 10\%$
- Min. air temperature:  $10^{\circ}\text{C}$
- Max. air temperature:  $43^{\circ}\text{C}$
- Min. water temperature:  $10^{\circ}\text{C}$
- Max. water temperature:  $30^{\circ}\text{C}$
- Min. water pressure: 1 bar
- Max. water pressure: 5 bar
- Max. air relative humidity: 85%

Any use of the machine non compliant with the intended use is not allowed.

### WARNING

**ICETEAM 1927 will NOT be held responsible for any damage or injury to persons and/or property, in case the machine is used for any purposes or in any manner other than that originally intended.**



## 1.4 NOISE

The equivalent continuous A-weighted sound pressure level in a workplace for water-cooled as well as air-cooled machines is less than 70 dB(A).

## 1.5 MACHINE STORAGE



The machine must be stored in a dry and damp-free place.  
Before storing the machine, wrap it in a cloth in order to protect it against dust or other impurities.

## 1.6 DISPOSAL OF PACKAGING MATERIALS



When opening the packing crate, divide packing stuff per type and get rid of them according to laws in force in machine installation country.

## 1.7 WEEE (Waste Electrical and Electronic Equipment)



In compliance with the European Directive 2002/96/EC, also known as WEEE, the presence of this symbol on the side of the product or packaging means that the product must not be disposed of with normal urban waste. Instead, it is the user's responsibility to dispose of this product by returning it to a collection point designated for the recycling of unused electrical and electronic equipment. Separate collection of this waste helps to optimize the recovery and recycling of any reclaimable materials and also reduces the impact on human health and on the environment. For more information concerning the correct disposal of this product, please contact your local authority or the retailer where this product was purchased.



## 2. INSTALLATION

### 2.1 ROOM NECESSARY FOR MACHINE USE

The machine must be installed in such a way that air can freely circulate all around its sides. Enough room must be left free around the machine, in order to enable the operator to act without constraint and also to immediately leave working area, if necessary. The minimum room for accessing the working area should be at least 150 cm, which takes into account the space taken up by open doors, if any.

#### WARNING

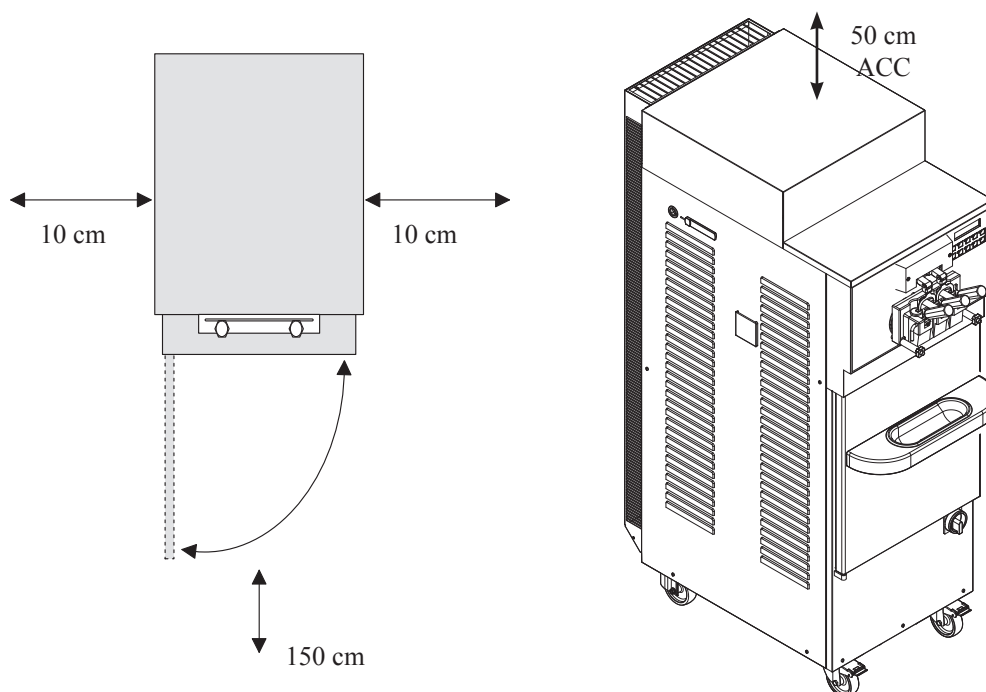
**Machines with air-cooled condenser must be installed at least 50 cm away from the back wall in order to allow free air circulation around the condenser.**

#### WARNING

**Clean the floor under and near the machine frequently in order to prevent paper and other foreign bodies from obstructing regular air flow.**

#### NOTE

*An insufficient air circulation affects operation and output capacity of the machine.*



### 2.2 POSITIONING THE MACHINE

The machine is fitted with wheels to ease its positioning. The wheels feature mechanical lock mechanisms which, once engaged, prevent the machine from moving and shifting to a different position. The machine must be positioned at right angles on a horizontal bearing surface (max. tilt: 2°).

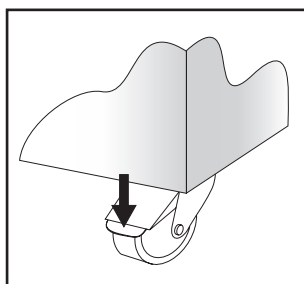


Fig. 9



## 2.3 WATER SUPPLY CONNECTION (Cooling water - Machines with water-cooled condenser)



The machine must be connected to the water supply respecting the applicable national requirements; moreover the water mains pressure must not exceed 0.5 MPa (5 bar). The connection pipes are provided by the installer and must comply with IEC61770. Used pipes cannot be reused.

Machines fitted with a water-cooled condenser need to be connected to running water supply or to a cooling tower.

Water must have a pressure of 1 Bar at least and a delivery at least equal to the expected hourly consumption. Water consumption increases if temperature of water is above 20°C.

Connect inlet pipe to water supply installing a shut-off valve, and outlet pipe to a drain pipe, installing rubber pipes for pressures up to 5 Bar.



### WARNING

**Do not leave the machine in a room with temperature below 0°C without draining water from the condenser**

### 2.3.1 Water valve adjustment

Valve adjustment must be carried out in such a way that no water flows out when machine is at standstill and water starts circulating when refrigeration system is turned on



## 2.4 ELECTRICAL CONNECTIONS

The power supply system must comply with the national regulations in force in the place of installation and provided with an efficient ground connection.

The manufacturer is not responsible for any malfunction or for injury to persons and/or damage to property resulting from connection to a non-compliant electrical system.

The appliance must be installed according to the current regulations for electrical installation, by competent and qualified technical personnel meeting the technical and professional requirements provided for by the legislation in force in the country of installation.

Before connecting the machine to the mains, check that the mains characteristics meet those of the machine specified in the identification plate applied to the machine itself.

Check that the power supply network is provided with a disconnection device, in compliance with the installation rules, ensuring complete disconnection from the mains for each pole (differential circuit breaker), in the conditions of overvoltage category III. The opening distance of contacts must be at least 3 mm.

Check that the trip level of the differential circuit breaker is  $\leq 30\text{mA}$ .

The machine is supplied with power cable; in case of three-phase machine with neutral, the blue conductor of the power supply cable must be connected to the system neutral.



### WARNINGS

**The machine is fitted with an electric supply cable including a yellow/green cable, which MUST be connected to an appropriate grounding of the electric system.**

### 2.4.1 Equipotential connection

Connection to external equipotential terminal is indicated by symbol

It is present on the side or on the back of the machine, not to be connected to the protection ground. The conductor to be used has a cross-section at least equivalent to the one of the connected conductor with greatest cross-section.



### 2.4.2 Replacing the power cable

If the machine power cable is damaged, replace it immediately with a cable with the same features. Replacement must be carried out by qualified personnel only.



## 2.5 CLEANING

Eliminate dust from your machine and remove the protective product which was spread on it before delivery.

Use a soft cloth and water, with addition of a mild non aggressive soap-detergent if necessary.

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### WARNING

**Avoid using solvents, alcohol or detergents that could damage machine parts or pollute the functional production parts.**

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## 2.6 TOP-UPS

Motor installed in the machine is of the type with lubrication for life; no action of checking/replacing or topping up is necessary.

Gas filling necessary to the circuit is carried out at ICETEAM 1927 factory during the machine post production testing; top-ups or filling are not required if the machine is new.

If any gas top-up or filling becomes necessary, this must be made solely by skilled engineers, able to determine the reason of such occurrence.

## 2.7 MACHINE TESTING

The machine is tested after production at ICETEAM 1927's premises; the requested operational and production functions are inspected and verified.

Machine test at the end user's premises must be carried out by authorized technical personnel or by one of ICETEAM 1927 engineers.

After positioning the machine and connecting it properly to the supply lines, proceed with the operations related to the functional check and with the operating test of the machine.





### 3. INSTRUCTIONS FOR USE

#### 3.1 MACHINE SAFETY WARNINGS

When using industrial equipment and plants, one must be aware of the fact that moving parts (rotary motion), high voltage components, as well as parts subject to high temperatures, etc. may cause serious damage to persons and things.

The persons in charge of safety must ensure that:

- An incorrect use or handling is avoided
- Safety devices are neither removed nor tampered with
- The machine is regularly serviced
- Only original spare parts are used especially as far as those components with safety functions are concerned (ex.: protection microswitches, thermal relays)
- Suitable personal protective equipment is worn.

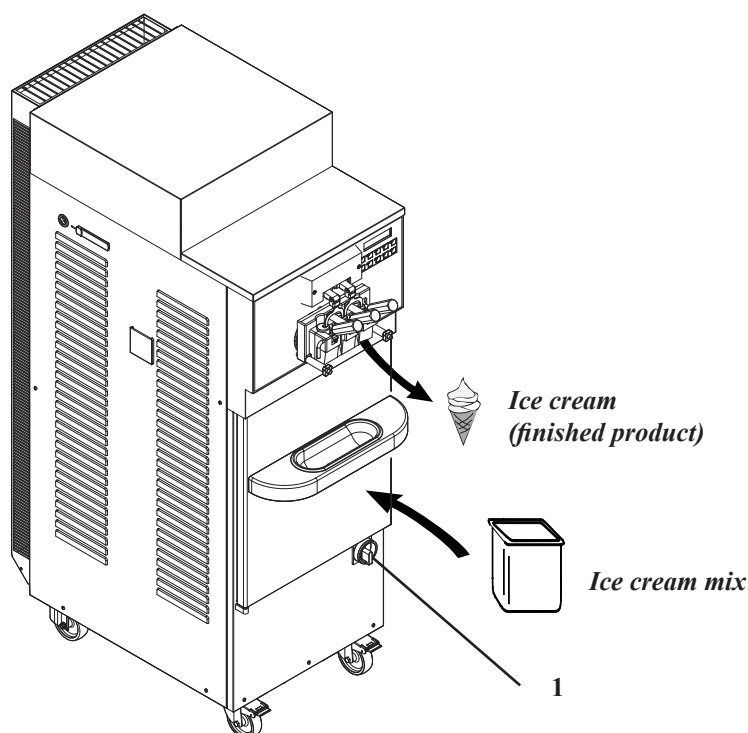
To achieve the above, the following is necessary:

- An instruction manual relevant to the machine should be available at the work station.
- Such documentation must be carefully read and requirements must consequently be met.
- Only suitably skilled personnel should be assigned to electrical equipment.



#### 3.2 MACHINE CONFIGURATION

The machine has a motor to drive the beater, and a cooling system with water or air condenser. Feed mix into the suitable tubs accommodated in the cabinet and start the automatic production cycle, until ice cream reaches the ideal consistency set by **ICETEAM 1927**; use the minimum and maximum mix quantity per cooling cycle specified in the chart provided in Sect. 1. When the cycle ends, the soft ice cream can be extracted through the spigot door.



#### 3.3 OPERATOR CONTROLS

##### 3.3.1 Main switch

Turn switch (Ref.1) to "1" to turn on the machine. Turn it to "0" to turn it off.



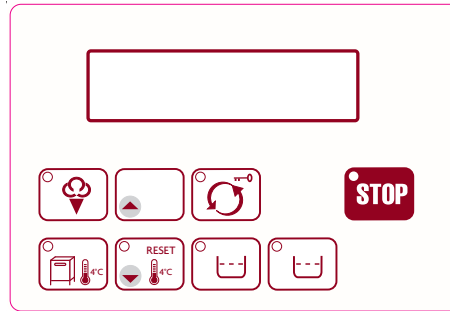
## 3.4 CONTROLS



### 3.4.1 Electronic control panel

The machine has an electronic control panel on the operator side; each button has a specific symbol according to its function.

When the machine is turned on, machine model and software version are displayed on the screen. When the touchpad accepts a command it will produce a beeping sound.



### 3.4.2 Button functions




#### STOP Button

When in Stop mode the machine is stopped and the relevant LED is on. From Stop it is possible to access any machine function. It is always NECESSARY to return to Stop first to perform a manual change of function.

If you leave the machine in Stop mode when mix is above the minimum level in the active side (step U11, see user programming table) and the level rod is enabled (step U14), after 30" the message "Why in STOP??" will start flashing and an intermittent beep will be emitted, so as to alert the user to set the machine to Production or Storage modes.

#### Tube hour reset

From STOP, once the pump tubes have been replaced (when they have reached the maximum number of working hours), the user can reset the counters by pressing


the "Level" key  relevant to the side of the counter to be reset for 3"; the following message will be displayed for 60":

0:33:21 Fri  
Tube 1 Procedure

At this stage, by opening the pump cover for side 1, the following message will be displayed for a few seconds:

10:33:21 Fri  
Tube 1 Hour Reset

and the procedure will be automatically quit.

This procedure can be repeated for side 2, by keeping the relevant "Level" key  pressed for 3" and opening the pump 2 cover.



#### PRODUCTION key

Production can be accessed only if mix is above the minimum level in all tubs.

The product is cooled in the cylinder till its set consistency value is reached.

The display will read

Ice cream Ready!  
TEV +19°C      W -03

The first (top) line indicates whether ice cream is ready on both sides (Ice Cream Ready!), or not yet ready on either side (Do not Serve!), or ready on one side only (as in "Ready Wait" which indicates that ice cream is ready on side 1 only).



If the display reads “Do not Serve!” (or “Wait” for one side), it means that the ice cream has not yet reached its set consistency and it is therefore necessary to wait. The second line indicates the cabinet temperature followed by the number of days until the next required washing (W= Wash).

Press PRODUCTION key to scroll through the menus described below:

Cabinet	↓	+014°C
↓	+009°C	↓ +006°C

The first line (top) of this menu shows the Cabinet temperature:

↓ = on, when cooling the cabinet; +014°C = temperature in the cabinet (TEV).

The second line shows the temperature of the Cylinders:

↓ = on, when cooling the cylinder, namely +009°C = temperature in cylinder 1 (TEC1), +006°C = temperature in cylinder 2 (TEC2)

Hot=089	Hot=085
Set=100	Set=090

The first line (top) of this menu shows HOT=089 HOT=085: reading of current consistency in the cylinders. To change consistency, see paragraph 3.6 "User programming".

The second line reads: Set=100 Set=090: consistency settings for the two sides

Daily cones
1234 1234 1234

This window shows the Cones of the day (starting from 0:00 to 23.59) for the right, left and middle sides:

Daily cones are reset:  
- after midnight

Total Cones
0923456780

This window shows the Total Cones, i.e. the total number of cones dispensed from the right, left and middle sides:

Tube1 hours	12:31
Tube2 hours	23:49

This window shows the operating hours of the pump tube expressed in hours and minutes (hh:mm).

**Note:**

*After replacing the pipes that have reached the maximum number of operating hours, the user may reset the counters from this page by opening the protection cover of one or both pumps and holding the production key pressed for 3". Now it is possible to close the cover of the relevant pump (see also "Change Pipe 1" in the alarm section).*



TC1-006	TC2-008
TE1-013	TE2-012

This window shows the sensors (neither °C nor °F are displayed):

TC1 = Cylinder 1 Thermostat  
 TC2 = Cylinder 2 Thermostat  
 TE1 = Cylinder 1 Evaporator Thermostat  
 TE2 = Cylinder 2 Evaporator Thermostat



TEV+006 TGV-008  
123:123:123:123

TEV = Cabinet Thermostat  
TGV = Cabinet Defrost Thermostat

The four values shown in the second line are meant for the technician.

Press PRODUCTION again to return to start page.



#### INCREASE Button

It serves to increase the values that can be edited for those functions where edits are permitted, and to scroll events.



#### STORAGE/DECREASE Button

When this button is pressed, the temperature of the product in the cabinet and in the cylinders is brought to 4°C.

This button also serves to decrease the values that can be edited for those functions where edits are permitted.



#### CABINET STORAGE Key

To access this function press the relevant button for 3".

Accessing Cabinet Storage, the LED of the relevant button flashes for 60" to indicate that the set function must keep only the cabinet to the set temperature.

In fact, Cabinet Storage has the function to bring the product to 4°C (programmable) only in the cabinet.

#### WARNING

**This function cannot be used if there is product in the cylinders since they are not stored.**

Upon entering Cabinet Storage the display shows:

Cabinet ↓ +015°C  
Conserv. Cabinet

The first line (top) of this menu shows cabinet temperature.

↓: The arrow indicates that cooling is in progress.



#### CLEANING/KEYBOARD LOCK Button

When this button is pressed, the pumps and the beating process run for 30" and then the machine automatically returns to Stop.

Once Cleaning mode is activated, the display shows the following:

TC1-008 TC2-005  
Beat.+Pump ON

Press Cleaning key to scroll through the menus described below:

TC1-008 TC2-005  
Pump ON

The beating process is disabled while the pumps remain active.

If Cleaning button is pressed, the display shows:

TC1-008 TC2-005  
Beater ON



The beater is activated.

Press Cleaning key again to return to start page.

### KEYBOARD LOCK


To facilitate machine cleaning, hold the Cleaning button pressed for 3 seconds in any mode so as to disable all buttons; the Cleaning button LED will flash. To enable the buttons, press the Cleaning button again for 3 seconds; the machine will stay in the same mode as when the buttons were disabled.



### NO MIX

When the mix level is low in either side, the first line on the display shows "Mix 1 Out" or "Mix 2 Out" steadily, as appropriate and an intermittent acoustic warning will be activated.

The second line displays the number of cones that can be drawn (Last Cones).

The corresponding LED  will turn on and the display will show:

Mix 1 Out!  
Last 5 Cones

After the last 5 cones have been drawn, the display shows:

Mix 1 Out!  
No more Cones

In this instance, left cylinder cooling will be shut down until more mix is added to the tub. After adding mix, the machine will automatically go back into production mode.

**Note:**

*When the "Mix Out!" message is on, it is not possible to enter the following Production pages.*



## 3.5 ICE CREAM DISPENSING HANDLE

To dispense Ice Cream, place a cup or cone under the dispensing spigot and lower handle slowly, turning the cup or cone properly to achieve a conical shape. When the portion has reached the desired size, close the dispensing lever and quickly pull the cone or the cup down in order to sharpen the tip.

**Note:** *Dispense Ice Cream without exceeding the production speed shown in the table provided in Sect. 1.2.3 "Technical features".*





### 3.6 USER PROGRAMMING

Press Stop and Storage keys simultaneously to access User Programming ("Manager Menu" will be displayed) and release them.

At this point, the display will show the first User programming step.

**Hours**  
**Step U01      10**

The first line shows the description and the second the number of the step (U=User) and the value. Press Increase or Decrease keys to edit the value.

Stop to access the next step.

See programming table.

Step	Display	Note	MIN	MAX	TYPICAL
U01	Hour		0	23	
U02	Minutes		0	59	
U03	Day of the week		Sun	Sat	
U04	Day of the month		1	31	
U05	Month		Jan	Dec	
U06	Year		2000	2099	
U07	Language	Ita, Eng, Fra, Deu	Ita	Deu	Eng
U08	Start Prod. Time		00	23+no	08
U09	Start Stor. Time		18	23+no	23
U11	Active side		Y-N	Y-Y	Y-Y
U13	Enables tube PR		N-N	P-T	*
U14	Lev. Snsr. Enable		no	yes	yes
U16	HOT 1		0	120	100
U17	HOT 2		0	120	100

#### U08 Start Prod.Time

Set the time at which Distribution will automatically start. If set to "no", automatic Distribution is disabled.

#### U09 Start Stor. Time

Set the time at which Storage will automatically start.

If set to "no", automatic Storage is disabled.

#### U11 Active Side

It has three possible settings (Y-N, N-Y, Y-Y). Set the side on which you want to work:

Y-N = left; N-Y = right; Y-Y = both

#### U14 - Lev. Snsr. Enable

If mix containers other than the supplied tub are used, the level sensors inside the cabinet – which are not fit to operate with such containers – may be disabled by setting the relevant step to NO. In this case, the number of last cones will be set to 0.

#### U16 HOT 1

Cylinder 1 (left) consistency value. Increasing this number will increase ice cream hardness. Decreasing it will decrease hardness.

#### U17 HOT 2

Cylinder 2 (right) consistency value. See previous step.

To quit programming, avoid pressing any key for about 30 seconds, or press Production or Cleaning. The machine will now return to STOP.

### 3.7 PRELIMINARY OPERATIONS, WASHING AND SANITIZATION

Before starting the machine for the first time, it is necessary to thoroughly clean its parts and sanitize all parts coming into contact with the ice cream.

The Instructions for removing, washing and refitting of parts are given in Section 5 of this manual.



### 3.8 STARTING THE MACHINE AND ICE CREAM PRODUCTION


#### 3.8.1 Putting mix into the tubs

- 1- Open cabinet door, fill tubs with mix (mix must be at 4°C), fit connection pipes and level sensors into mix tubs.
- 2- Place tubs into cabinet and close the door.
- 3- In the case of machines fitted with water-cooled condenser, open water shut-off valve.
- 4- Turn main switch to "1".
- 5- Lower the dispensing handle and press CLEANING (the corresponding LED is on). The display shows "Beating + Pump ON". When product starts flowing out, close the dispensing handle and wait for the machine to switch to Stop automatically.
- 6- Press the PRODUCTION key.
- 7- After about 3 minutes, ice cream dispensing can start.
- 8- Dispense ice cream without exceeding maximum production rate of the machine, as shown in the table provided in Sect. 1.2.3 "Technical features". If you keep within this rate of production and top up the machine with fresh mix, you will not experience interruptions, even during rush hours.



When the mix level is low in either side, the first line on the display shows "Mix 1 Out" or "Mix 2 Out" steadily, as appropriate.

The second line displays the number of cones that can be drawn (Last Cones).

The corresponding LED  will turn on and the display will show:

Mix 1 Out!  
Last 5 Cones

After the last 5 cones have been drawn, the display shows:

Mix 1 Out!  
No more Cones

In this instance, left cylinder cooling will be shut down until more mix is added to the tub. After adding mix, the machine will automatically go back into production mode.




### 3.8.2 Putting Bag in Box into machine

The machine may be used with mix containers other than the supplied tubs.


If using stiff containers, follow these instructions:

- 1- Disable step U14 (Lev. Snsr. Enable) in user programming by setting it to "no".
- 2- Open cabinet door, fit connection pipes into mix containers (Bag in Box), place containers in cabinet and close cabinet door.
- 3- In the case of machines fitted with water-cooled condenser, open water shut-off valve.
- 4- Turn main switch to "1".
- 5- Lower the dispensing handle and press CLEANING (corresponding LED on); the display shows "Beat. + Pump ON". When the product starts flowing out, close the dispensing handle and wait for the machine to switch to Stop automatically.
- 6- Press the PRODUCTION key.
- 7- After about 3 minutes, ice cream dispensing can start.
- 8- Dispense ice cream without exceeding maximum production rate of the machine, as shown in the table provided in Sect. 1.2.3 "Technical features". If you keep within this rate of production and top up the machine with fresh mix, you will not experience interruptions, even during rush hours.

When the mix level is low in either side, the first line on the display shows "Mix 1 Out" or "Mix 2 Out" steadily, as appropriate.

The corresponding LED  will turn on and the display will show:

Mix 1 Out!  
No more Cones

In this instance, left cylinder cooling will be shut down until a fresh mix container is placed into the machine. After loading the container, press the  button to place the machine back into production mode.

#### **Note:**

*Soft containers may also be used when the optional container supporting bracket and specific connections are installed.*

## 3.9 LONG IDLE TIMES

In case of long idle times of the machine, in which the product is not dispensed, set the machine to STORAGE by pressing the relevant key.

You will also save a lot of electricity because the compressor runs only when necessary in order to store the product at the right temperature.

To restart dispensing ice cream, press the PRODUCTION key and within a few minutes the ice cream will be at the right serving consistency.

## 3.10 OPENING PROCEDURE

### 3.10.1 Spigot door sanitization

- Soak a brush in the sanitizing solution and brush ice cream outfeed hole and the area around the spigot door piston several times.
- Wash, rinse and sanitize drip tray and drip drawer.
- Wipe the machine front side and the spigot door area with a clean sanitized towel.
- Make sure that the machine is in production mode (see paragraph 3.8).

## 3.11 CLOSING PROCEDURE

### 3.11.1 Spigot door sanitization

- Soak a brush in the sanitizing solution and brush ice cream outfeed hole and the area around the spigot door piston several times.
- Wash, rinse and sanitize drip tray and drip drawer.
- Wipe the machine front side and the spigot door area with a clean sanitized towel.



## 4. SAFETY DEVICES

### 4.1 MACHINE SAFETY SYSTEMS

#### WARNING!

It is strictly forbidden to operate the machine in case the safety-related devices have been disabled, altered or tampered with.

ICETEAM 1927 will NOT be held responsible for any damage or injury to persons and/or property, in case any safety-related devices, designed to grant the safety of operator and machine, have been disabled, altered or tampered with.



#### 4.1.1 Spigot door safety magnetic switch

Each time the door is opened, a magnetic switch, which stops the machine operation, is triggered. This prevents operator from getting in touch with moving parts. "Spigot door Open" is displayed on the screen. Close the spigot door to resume regular machine operation.

### 4.2 ALARMS

The machine signals possible alarms by showing them on the display and flashing the message. If an alarm was triggered and then reset, the alarm remains visible on the display in a steady way (not flashing).

To reset the warning message, press Storage/Reset



The machine can be used to produce ice cream even if an alarm is on; in case of critical alarms, the machine sets to STOP and the relevant message will be displayed. If this occurs, press STOP and do not use the machine until it is repaired.

The table below shows a list of possible alarms:



ALARM	DESCRIPTION
<b>Table Updated M.</b>	Each time the programming table is edited (either by the user or by a technician) this message is displayed for a few seconds and simultaneously stored in the event log. Warning only.
<b>Table Updated R.</b>	The message is displayed when exiting programming table, when it is changed from TCinterface or in remote.
<b>Al.Cyl.1/2Probe (TEC1 / TEC2)</b>	Cylinder probe faulty. This is a critical alarm: consequently, the machine sets to Stop during Storage. During Production it does not quit the function, because in this case consistency is anyway controlled.
<b>Al.Cabin Probe (TEV)</b>	Cabinet probe faulty. Since it is a critical alarm, the machine sets to Stop during both Production and Storage.
<b>Al.Evap.1/2 Probe (TE1 / TE2)</b>	Cylinder evaporator probe alarm. This alarm does not cause the machine to stop (it keeps on running in the current function).
<b>Al. IceCab.Probe (TGV)</b>	Cabinet evaporator probe malfunction. This alarm does not cause the machine to stop (it keeps on running in the current function).
<b>Alarm HOT MC</b> <b>Single-phase machines only</b>	Active on single-phase machines ONLY If the compressor motor absorption control triggers (HOT MC exceeds the value set in step T82) for a number of times corresponding to the number set in step T83, the machine sets to Stop and it displays "Alarm HOT MC". See step T82.
<b>Inverter Alarm</b>	Check beater inverter conditions and replace it if necessary. This alarm triggers machine Stop.
<b>No more cones 1/2</b>	With mix below level, in Production mode, the machine can dispense the number of cones set in step Last Cones. Then the machine automatically sets to Storage displaying the message No more Cones on the relevant side (also memorized in the event log). The alarm can be reset by pressing the Decrease key.



<b>Pump Cov. Open 1/2 (IMS MP)</b>	Pump Motor Safety Magnetic Switch. Signals opening of pump cover and disables it: it is also necessary to correctly carry out the tube hour reset procedure from Stop mode.
<b>Easy W. in hs</b>	Warning activated with C1M enabled. When C1M procedure is enabled it must be carried out every 3 days. When 9 (fixed) hours are left to the end of C1M Wash Days (and every hour thereafter) the message “Easy W. in hs” is displayed where “h” are the hours left to carry out a complete C1M, as the C1M must start and end within this time. The message can be reset by pressing the Decrease key. If the C1M washing cycle is not carried out within the preset time, the machine switches to Storage mode and does not allow Production until said washing cycle is carried out. In this case the message on the display becomes “Full Wash Now !!”.
<b>MB Comm. Error</b>	Check the connection between inverter and TC control unit. This alarm triggers machine Stop.
<b>Easy Wash End</b>	Easy wash ended.
<b>Ice Cylinder (ICE)</b>	With enabled level sensor (U14=yes)  Cylinder freezing read by TE1/TE2 probe. When in Production mode, if the value of TE1 (or TE2) becomes lower than the value set in step Ice Cylinder, the machine switches to reached HoT mode and stores the Ice Cylinder alarm in the event log. This alarm may be due to insufficient mix feeding into the cylinder. Check pump efficiency.
<b>Invert Phases!</b>	It is necessary to invert the 2 phases on the three-phase cable so that the beater turns in the correct direction. This condition is tested only for the first minute after the machine is turned on.
<b>Full Wash in hs</b>	When 9 (fixed) hours are left to the end of Wash Days (and every hour thereafter) the message “Full Wash in hs” is displayed where h are the hours left to complete washing cycle. The message can be reset by pressing the Decrease key. If the washing cycle is not carried out within the preset time, the machine switches to Storage mode and does not allow Production until said washing cycle is carried out. In this case the message on the display becomes “Full Wash Now !!”.
<b>Full Wash Now !!</b>	See “Full Wash in hs”. Complete washing cycle must be carried out.
<b>Power Off</b>	Power off, displayed only in the event, indicates a moment when power was off.
<b>Mix Out 1/2</b>	The display indicates Mix Out when the mix is below the level sensor. When the mix is below the minimum level and upon Production, a number of cones same as/or higher than the value set in step Last Cones are dispensed, not only will Mix Out be displayed, but the machine will also show “No more Cones”. For the machine side without Mix. If this message was triggered in Production when the timer T24 elapses, it can be reset by pressing the Reset key and the Mix Filling procedure will start
<b>MWG OK</b>	For the machines featuring the DIALOG teleservice system, upon machine installation, in STOP function, press the increase key for 10” in order to check the connection to the teleservice control unit. This message indicates that the check has been successfully performed. This check can be repeated every time the data transmission check between TC control unit and teleservice control unit, also known as MWG control unit, proves to be necessary.
<b>NO MWG</b>	It indicates that the aforementioned test has been unsuccessfully performed
<b>Do Not Serve !</b>  <b>see also:</b>  <b>Wait    Serve</b>	In Production mode, whenever the consistency drops below the value programmed in the step Hot Block, “Do Not Serve !” or “Wait    Serve” will be displayed (when at least on of the two sides has the desired consistency, LH side, for example). If, in such a case, you try to dispense cones, all outlets are disabled (MA of the side that has not reached the desired consistency yet and even MC if both sides are not ready) until microswitch (or photocell for 401) is reset. As soon as it is released, both MA and MC re-start in order to bring ice cream to its proper consistency.

<b>Why in STOP ??</b>	If the machine is left in the Stop position with mix above the minimum level and level rod enabled (U14), after 30" the flashing message "Why in Stop ???" will be displayed and an intermittent beep will be emitted. This alerts the user to select either Production or Storage. The message is cleared by pressing the Reset key (Stor). The message will reappear only when switching again to Production or Storage and then to Stop.
<b>Spigot Opened (IMS)</b>	Magnetic Safety Switch (IMS). Being a safety alarm, the machine sets to Stop mode. If opened for a few seconds, the Wash message is reset.
<b>Pressure Switch (PR)</b> <b>Pressur.Switch 2 (703)</b>	Pressure switch triggered. The machine Stops: - if it is triggered for the third time (the number of triggers is reset once the desired consistency is reached in Production mode); - if the pressure switch contact remains open for two consecutive minutes. Check the cooling water flow or the machine position compared to the fan position for air-cooled machines.
<b>Power On</b>	See paragraph hour Tube Reset.
<b>Replace Tube 1/2</b>	Power supply returns after power loss. The event is logged and displayed in any function except for STOP and CLEANING.
<b>Overload Beat.1/2 (RTA)</b>	This message is displayed every time the machine switches to Production, after a number of hours of pump motor operation, the N is set in step T31. It indicates that the tube must be replaced. The message does not cause the machine to stop and can be reset each time with the special Reset key. The message can be permanently erased through the procedure described in the Stop function (as an alternative, also refer to the procedure in the Production function) or with step T86, see below. When setting at step T31 is reached for the first time, an event is saved.
<b>Overload Beat.1/2 (RTA)</b>	Beater motor thermal relay triggered. The machine Stops.
<b>Overload Compres (RTC)</b> <b>Overload Compr.2 (703)</b>	Compressor motor thermal relay. The machine Stops.
<b>Timeout Prd. 1/2</b>	During Production the amount of time for which the beater motor runs is closely monitored. If it remains ON for 15 minutes (Timeout Prd) without reaching HoT, the machine shifts into a state of "HoT reached" with alarm stored in the events. The timer is reset at MIR and when MA is turned on. If the consistency is still below Hot Block 1 (T09) at any time, the machine switches to Stop and the alarm message "Timeout Prd." is displayed. Check the quantity of mix in the cylinder, the pump in the cabinet, and the refrigeration system.
<b>Check tube 1 (2)</b>	With level sensor and pressure switches enabled (respectively at steps U14 and U13) the machine indicates to check the position of the mix draw tube.

### 4.3 NO VOLTAGE

In case of power supply failure, the machine will set to STOP if it was in Cleaning or in Stop.

If the machine was in Production or Storage when power is restored the machine checks the TEV cabinet temperature and the duration of the blackout:

- if this time is longer than that specified in the table below, the machine will anyway set to Storage with the washing request and the message “Lavare Adesso !” or “Wash Now !”.
- if the time is shorter than that specified in the table below, the machine will return to the function active before the blackout and only the message “Mancata Tensione” or “Power On”, logged also in the events, will be displayed.

TEV Temperature	Time
68°C - 50°C	30 minutes
49°C - 15°C	10 minutes
14°C - 10°C	20 minutes
9°C - 4°C	2 hours

## 5. REMOVING, CLEANING AND REFITTING OF PARTS IN CONTACT WITH THE PRODUCT

### 5.1 GENERAL INFORMATION

Cleaning and sanitization must be carried out at the end of every production as a habit and with utmost care in order to guarantee the production quality in the observance of necessary healthy rules. If dirt is left enough time to dry out, this increases the risk of stains, marks and damage to surfaces. Removing dirt is much easier if it is done immediately after use because some elements containing acid and saline substances might corrode the surfaces. A prolonged soaking is not recommended.



### 5.2 WASHING CONDITIONS

- **Avoid using solvents, alcohol or detergents that could damage machine parts or pollute the functional production parts.**
- When washing manually, never use powder or abrasive products, abrasive sponges or pointed tools. There is a risk of dulling the surfaces, removing or deteriorating the protective film present on the surface and scoring the surface.
- Never use metal scouring pads or synthetic abrasives and avoid any other means containing ferrous particles that could cause oxidization or compromise the integrity of the surfaces.
- Avoid using detergents containing chlorine and its compounds. The use of detergents such as bleach, ammonia, hydrochloric acid and limescale removers can attack the steel composition, marking and oxidizing it irreparably and causing damage to the parts made of plastic materials
- Do not use dishwashers and their detergent products.



### 5.3 TIPS

- Use a non-aggressive detergent solution to wash the parts.
- Manually wash the parts in water (max 60°C) using a non-aggressive detergent and the cleaning brushes supplied as standard.
- To sanitize the disassembled parts leave them in the sanitizing solution for the time indicated by the solution manufacturer (use the sanitizing product following the manufacturer's instructions, the type and sanitizing agent concentration must comply with 40 CFR § 180804) and rinse them before refitting.
- Use drinking water (bacteriologically pure) to rinse the parts.
- When the washing procedure has been completed and before reassembly, dry each component thoroughly with a clean and soft cloth that is suitable for coming into contact with foodstuffs, to avoid leaving any humidity rich in mineral salts and chlorine that could attack the metal surfaces and leave opaque traces.



#### **ICETEAM 1927 recommends the use of a cleaning/sanitizing solution to wash the machine.**

The use of a cleaning/sanitizing solution optimizes the washing and sanitizing procedures in that it eliminates two phases of the procedure (a rinse and a washing phase). Basically, the use of a cleaning/sanitizing solution saves time by facilitating and simplifying washing/ sanitizing procedures.

#### **WARNING**

**Every time the machine is washed and the parts that come into contact with the ice cream mix are disassembled, it is essential to carry out a visual inspection of all the parts made in thermosetting, plastic, elastomer-based and silicon-based materials and metal (such as sliding shoes, pump gears, beaters, etc. ).**

**All parts must be integral and not worn, without cracks or splits, or opaque if originally polished/transparent.**

**ICETEAM 1927 declines any liability for damages caused by imperfections and/or undetected breakages and not promptly solved by the replacement with original spare parts. The manufacturer is available for consultation and for any specific requests made by the customer.**





## 5.4 HOW TO USE CLEANING/SANITIZING SOLUTION

Prepare a solution of water and sanitizing detergent following the instructions shown on the label of the product being utilized.

Washing/sanitizing by soaking

- Remove larger residues by hand
- Remove finer residues with a jet of water
- Immerse the parts to be cleaned into the solution
- Let the solution react for the time indicated on the label of the product being utilized
- Rinse the parts with care, using plenty of clean drinking water

## 5.5 ICE CREAM SYSTEM EMPTYING



- 1- Remove mix draw tube from hopper and remove hopper from cabinet.
- 2- Press the CLEANING key and leave machine in this position for a few minutes.
- 3 - Slowly lower the dispensing handles and collect all the product flown out in a large container.
- 4 - When all the product has flown out of the machine, bring dispensing handles back to closed position and press the STOP key.
- 5- Immerse the pump connection pipe into a bucket containing cleaning/sanitizing solution.
- 6- Press the CLEANING key and leave machine in this position for a few minutes.
- 7- Remove the pump connection pipe from the bucket and lower the dispensing handles, draining the machine from all the water used for washing it.

## 5.6 SCHEDULED CLEANING

This machine has an automatic system commanding the wash of parts in contact with product every 3 days (72 hours).

This system, identified as "WASH", disables the dispensing function at the end of the 3rd day after the latest cleaning. On the display, the message "WASH" appears.

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### Warning

**Remove and refit moving parts with the machine on STOP.**

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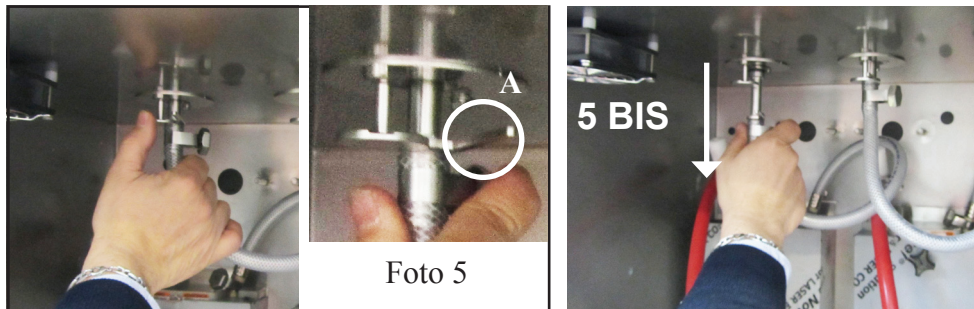
### Warning

**Remove the seals using the special O-Ring puller supplied**

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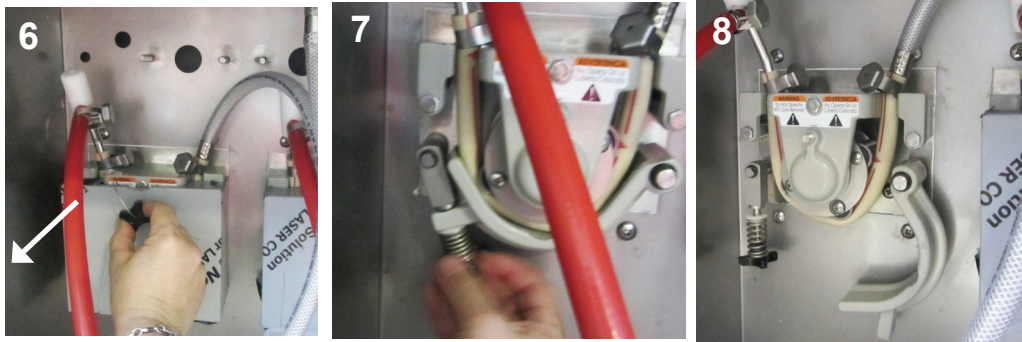
### 5.6.1 Pump removal

- 1- Release the pump hose by moving lever "A" to the right (picture 5). Remove the pump hose from the upper side of the cabinet by pulling it downwards (picture 5 bis).

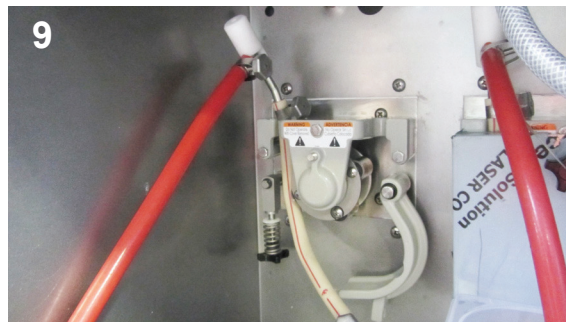




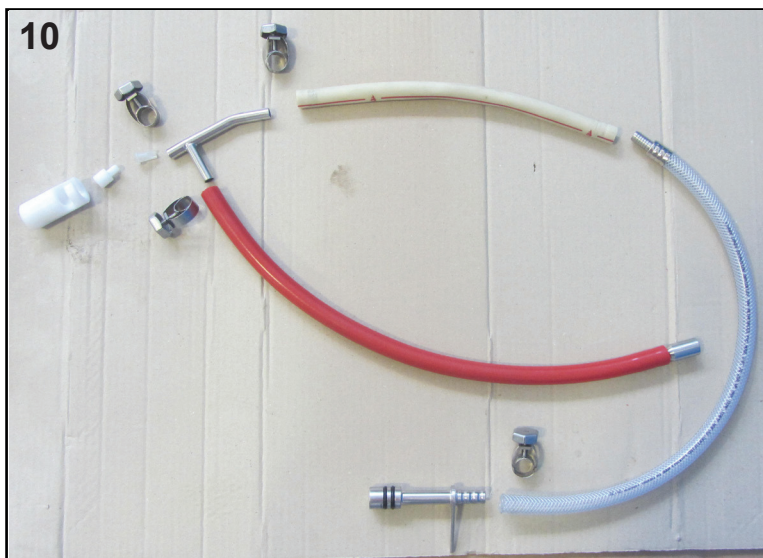
- 2- Loosen the knob on the pump cover and remove cover (picture 6)
- 3- Loosen the knob on the pump to open the jaw clamp (pictures 7 and 8).



- 4- Release pipe from pump (picture 9).



- 5- Now the whole circuit of the pump pipes is released. Loosen the clamps as required and extract the various components from the pipes to achieve the condition shown in picture 10.



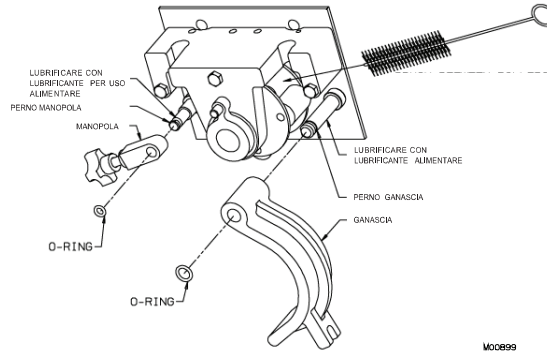


- 6- Remove the O-rings and release the jaw and the knob from the pump.
- 7- Soak a brush into the cleaning/sanitizing solution and wash the pump.

### Warning

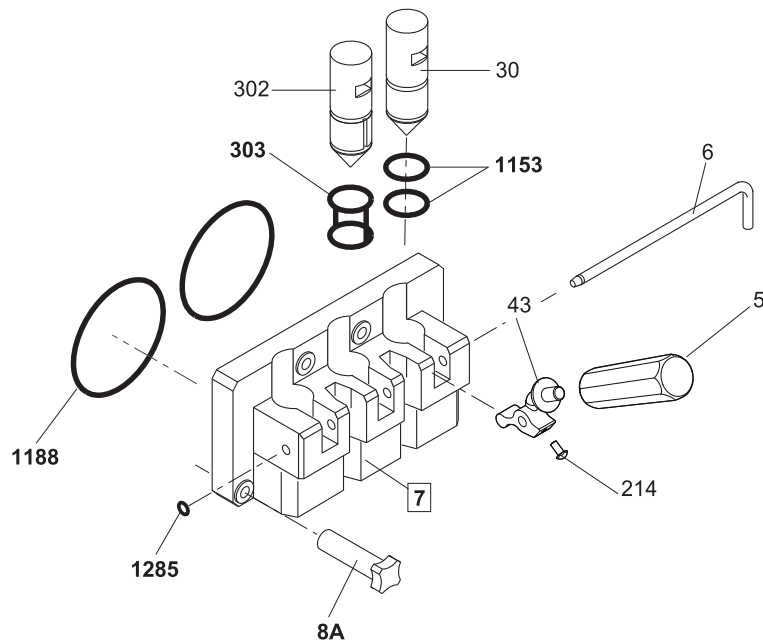
**Do not leave the jaw soaked in the solution or in water, as the inside gets corroded.**

- 8- Lubricate the jaw pin and the knob pin with the food grade lubricant supplied.



### 5.6.2 Spigot door removal

- 1- Loosen the two fastening knobs (Ref.8A) and remove the door by pulling it from the front side.
- 2- Slide out pin (Ref.6) and remove dispensing handles (Ref.5).
- 3- Remove pistons (Ref.30 and 302) using the dispensing handle (Ref.5).
- 4- Remove all seals using the special puller supplied as standard.

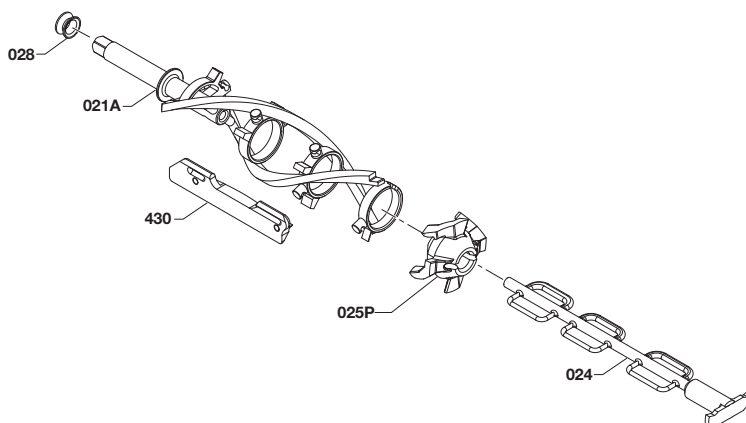


### 5.6.3 Beater removal

- 1- Extract beater (ref. 21) from the cylinder.
- 2- Extract seal (ref. 28) from the beater shaft.
- 3- Remove terminal (ref. 25P) and idler (ref. 24).
- 4- Remove the 3 beater blades (ref. 430).

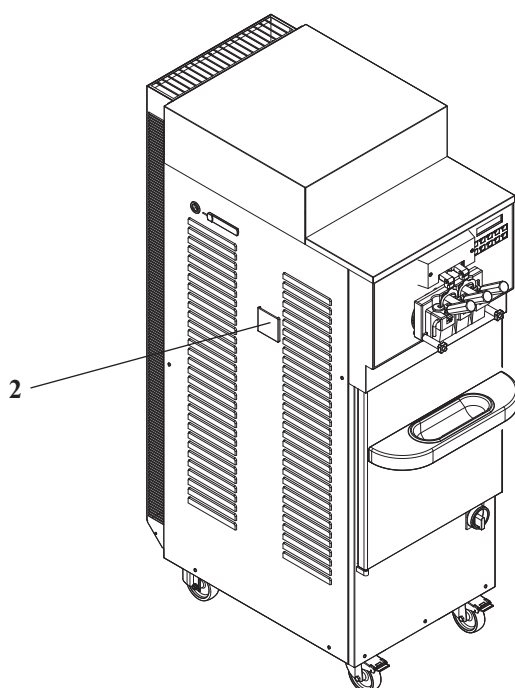
#### WARNING

The beater seal is a key component. Check it for wear and tears on a regular basis. It must always be in place on the beater shaft and must always be lubricated during all operations, or the mix will drip down into the drip tray.



### 5.6.4 Cleaning of cabinet and drip tray

- 1- Open the cabinet and thoroughly clean all the parts, using a sanitized cloth.
- 2- Slide out drip tray (Ref. 2), wash and sanitize it and finally refit it into its seat.





### 5.6.5 Washing and sanitizing components



1. Remove larger residues by hand.
2. Remove finer residues with a jet of water
3. Soak the parts to be cleaned in the cleaning/sanitizing solution.
4. Leave the cleaning/sanitizing solution to work for the time indicated on the product packaging.
5. Rinse the parts with care, using plenty of clean drinking water.
6. Place the components on a clean tray to air-dry.
7. Soak a brush in the cleaning/sanitizing solution and clean the cylinder
8. Spray cleaning/sanitizing solution on the back side of the cylinder.
9. Spray cleaning/sanitizing solution on the walls of the cabinet and remove it using a sanitized cloth.

Repeat steps 7, 8 and 9 several times.

### 5.6.6 Refitting parts in contact with the product

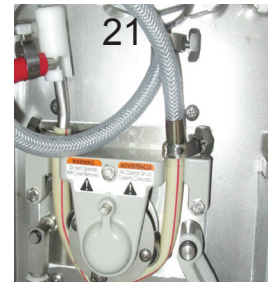
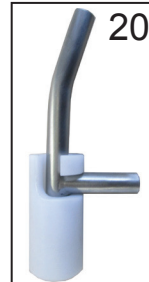
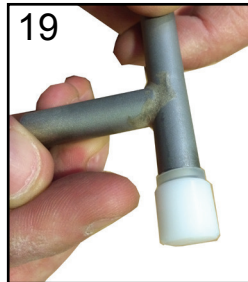
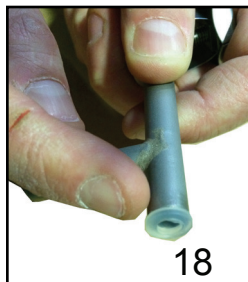


*Note:*

*Proceed with the refitting of the parts after they have been thoroughly cleaned and sanitized and after lubricating all the seals with grease.*



- 1- Refit beater, idler, beater terminal and seal and insert the assembly inside the cylinder.
- 2- Refit the door and secure it by means of the knobs, making sure they are tightened correctly.
- 3- Refit pump circuit proceeding in the reverse order to disassembly (see par. 5.6.1). Be sure to take the following precautions:
  - Refit the valve to the metal pipe first and then the plug and the air feeding tube stop (see pictures 18, 19 and 20).
  - After reassembling the pump circuit (i.e. the pump pipes), fit it to the pump with the red line on the white pipe facing the operator (see picture 21)



### 5.6.7 Sanitizing

- 1- Refit all the machine parts previously washed and fit the pump priming pipe in a container filled with cleaning/sanitizing solution.

**Note:**

***Strictly follow the instructions given on the packaging of the cleaning/sanitizing detergent used.***

- 2- Press CLEANING to let the machine run for a minute.
- 3- Always follow the instructions of the sanitizing product supplier and, prior to starting the machine, repeat operations 1 and 2 using running water after draining the sanitizing solution through the suitable handles.

**Note:**

***It is important not to touch the parts with your hands or with wiping tissues anymore after they have been sanitized.***

- 4- Insert mix tubs into cabinet, fit pump priming pipe and level sensor into tubs. Follow the instructions at paragraph 3.8 to start production.

### 5.6.8 Hygiene

Ice cream fat contents are ideal fields for proliferation of mildew and bacteria.

To eliminate them, parts in contact with mix and ice cream must be thoroughly washed and cleaned as above specified.

Stainless steel materials as well as plastic and rubber ones used for the construction of these parts and their particular design make cleaning easy, but cannot prevent the growth of mildew and bacteria if not properly cleaned.

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**WARNING**

**Before starting again with production, rinse thoroughly with water only, in order to remove any residue of sanitizing solution.**

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## 5.7 "C1M" CLEANING PROCEDURE

This procedure, which has to be carried out every 3 days, allows to reduce the frequency of the programmed machine washing (par. 5.5) to only once a month.

When entering the Production function, the following message will be displayed:



Easy Wash gg-3

indicating the number of days until the "C1M" cleaning procedure is performed. Once this washing is completed, the day number counter sets back to 3.

The described procedure can be applied both to machines supplied with level sensor and to machines in which latter is not used (see par. 3.6, step U14).

### WARNING

**Make sure that all procedures below are carried out correctly.  
If the STOP key is manually pressed before the procedure is completed, the day number counter does not set back to 3.**

To start the procedure, activate the Cleaning function by pressing key , once you enter this function, keep the up arrow key  pressed for 3". On display:

level sensor

No level sensor

Remove Tanks  
Take Tube/Sensor


Remove Tanks  
Press Key ^

1. Disconnect mix draw pipes and the level sensor from hoppers. Remove hoppers and hopper covers from cabinet.

### WARNING

**Mix inside hoppers must be thrown away.**

2. Place mix draw pipes in a container together with level sensors if the machine features them. If level sensors are used, plastic containers must be used.


For machines without level sensor, press key  to continue. On display:

level sensor

No level sensor

Put water

Put water  
Press Key ^

3. Pour drinking water in the container and for machines without level sensor, press key .

4. At this point, the beaters will start running and after 5" the display will suggest to open the pistons so that residues of ice-cream mixed with the added water can be removed.

level sensor

No level sensor

Open Piston

Open Piston


5. Once the pistons are open, beating will continue for 15", after which the display will require to close the piston:

level sensor	No level sensor
Close Piston	Close Piston

6. Once the pistons are closed, pumps will activate for 30", shown on the display: during this time interval, the machine, if provided with level sensor, will make sure that latter is covered. Should this not be the case, it will show:

level sensor	No level sensor
Pause 00:29 Put Water	Pause 00:29 Wait

In this case, beaters and pumps will be disabled if, on a machine provided with sensor, the mix is below the level.

7. When the time of 30" is over, pumps and beaters come to a stop and the display will show the need to open pistons (for machine not provided with level sensor, key  must be pressed to continue):

level sensor	No level sensor
Open Piston	Open Piston

8. After piston opening, beaters and pumps will be re-activated for 80" and the display will show:

level sensor	No level sensor
Pause 01:19 Wait	Pause 01:19 Wait

Beaters and pumps will be disabled when pistons are mistakenly closed or, on machine provided with sensor, when the mix is below the level.


9. When this time is over, the machine will switch beaters and pumps off, suggesting to close pistons:

level sensor	No level sensor
Close Piston	Close Piston

10. Once closed, the machine will indicate the need to pour water:

level sensor	No level sensor
Put water Press Key ^	Put water Press Key ^

11. Once the key is pressed, you return to step 6 and the same operations (80"-timer) are carried out twice more. After the 80"-timer in the third cycle is over, pumps will be disabled and after additional 15" beaters will be disabled as well.

12. At this point, the display will show a series of operations to be carried out in sequence, requiring each time the authorization to continue by pressing the key , after a minimum time of 20".

First of all, pistons must be removed from spigot door,

level sensor	No level sensor
Dismount pistons Press Key ^	Dismount pistons Press Key ^

In a separate container, clean and sanitize pistons without necessarily removing seals, making sure to remove all product and lubricant residues.

level sensor	No level sensor
Sanit. Pistons Press Key ^	Sanit. Pistons Press Key ^

Leave pistons in a sanitizing solution for the time indicated on the sanitizer label.

level sensor	No level sensor
Spigot door sanit. Press Key ^	Spigot door sanit. Press Key ^

Without removing spigot door, proceed with its sanitization with sanitizing solution, spray and brushes, cleaning carefully piston housings and all spigot door holes. With a sanitized cloth, clean machine front side and drip tray.

level sensor	No level sensor
Refit Pistons Press Key ^	Refit Pistons Press Key ^

Refit pistons on spigot door,

Indication to empty container will follow.

level sensor	No level sensor
Empty Bucket Press Key ^	Empty Bucket Press Key ^

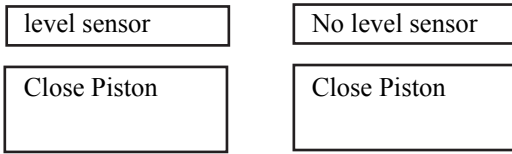
Drain water from cleaning container.

13. At this point, cylinder sanitization phase will begin and the machine will show:

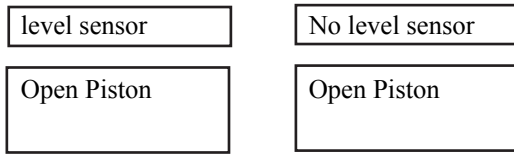
level sensor	No level sensor
Put Sanit. Press Key ^	Put Sanit. Press Key ^

Fill draw pipe container with cleaning/sanitizing solution (5 liters) and, as in the case of water loading, let cleaning/sanitizing solution flow in the machine.

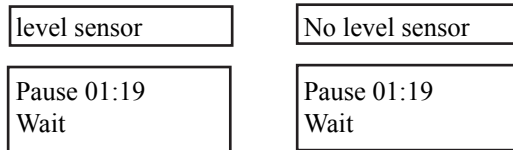
**14. Machine will require to close pistons:**



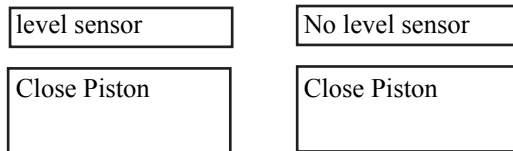
and re-open pistons:



so that sanitizer can be best spread and at this point, beaters and pumps will be enabled for a time set at 80":

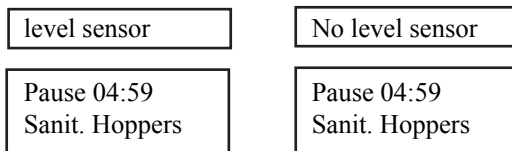


When the 80" are over (or earlier, when the mix is below the level if the machine is provided with relevant sensor), the machine will stop beaters and pumps, requiring to close pistons:



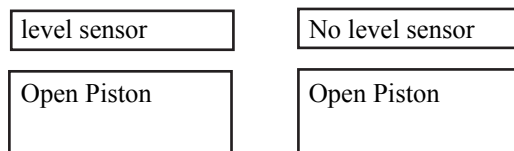
and you go back to point 13. After the second 80"-count is over (or earlier, when the mix is below the level if the machine is provided with relevant sensor), the machine will suggest again to close pistons, keeping pumps and beaters running for 30", so that cylinders can be filled correctly and then switched off.

**15. The machine will start counting a 5-minutes-time for cylinder sanitization and the display will suggest to proceed with hopper sanitization:**



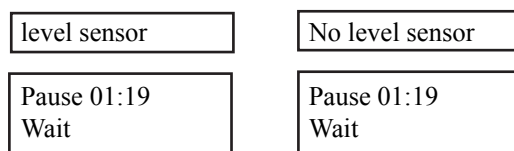
While waiting, separately sanitize hoppers and relevant covers.

**16. when the 5' are over, the machine will enable a beep indicating to open pistons:**



starting a 80"-time with enabled pumps and beaters in order to drain all sanitizer from the machine.

Beaters and pumps will be disabled when pistons are mistakenly closed or, on machine provided with sensor, when the mix is below the level:



17. When this time is over, pumps will stop and, after a further 15"-delay, beaters will stop, too.

The display will suggest to press key  and then require to close the piston:

level sensor	No level sensor
Close Piston	Close Piston

Once this is done, the machine will show on the display:


level sensor	No level sensor
Empty Bucket	Empty Bucket Press Key ^

18. A rinse with drinking water will be required:

level sensor	No level sensor
Put water Press Key ^	Put water Press Key ^

and you return to point 16 (in this case, the sequence is followed to drain rinse water from the machine), then carry out operations until point 17. However, this time the display will show:

level sensor	No level sensor
End Procedure Press Key ^	End Procedure Press Key ^

By pressing key , the machine will be set to STOP.

## 6. MAINTENANCE

### 6.1 SERVICE TYPE

#### WARNING

Any maintenance operation requiring opening of machine panels must be carried out with machine at standstill and disconnected from the power supply.

**It is forbidden to clean and lubricate moving parts!**

"Repairs to the wiring, mechanical, air supply or cooling systems, or to parts of same must be carried out by qualified and authorized personnel and if necessary, according to the routine and extraordinary maintenance schedules as envisaged by the customer with reference to specific intervention methods, according to the use for which the machine is destined".



Operations necessary for correct machine operation are such that the majority of routine maintenance interventions are integrated into the production cycle.

Maintenance operations, such as cleaning of parts in contact with the product, replacing of seal, disassembling of beater assembly are to be carried out at the end of the working day, so as to speed up maintenance operations required.

Below is a list of ordinary maintenance interventions:

#### - Seal cleaning and replacement

Seal must be cleaned according to the procedures described in section 5 of this manual. It must be replaced after visual inspection and when product is found to be leaking inside drip tray.

#### - Cleaning of beater assembly, spigot door assembly, pump, pressure switch and level sensor

According to procedures described in section 5 of this manual.

#### - Cabinet cleaning

It must be carried out at the end of each shift.

#### - Cleaning of drip tray and condensate collector tray

It must be carried out at the end of each shift.

#### - Machine panel cleaning

To be carried out daily with neutral soap, seeing to it that cleansing solution never reaches beater assembly at its inside.

#### - Cleaning and sanitization

According to procedures described in section 5 of this manual.

#### - Peristaltic pump tube replacement

Suggested replacement interval is every 30 days, or anyway when corresponding message appears.

#### WARNING

Never use abrasive sponges to clean machine and its parts, as it might scratch their surfaces.



### 6.2 WATER COOLING

In the case of water-cooled machines, water must be drained from condenser circuit at the end of the season in order to avoid troubles in the event that the machine is stored in rooms where temperature may fall under 0°C.

Slide out inlet and outlet pipes from their seats and let water flow out from circuit by starting the machine for a few seconds.







### 6.3 AIR COOLING

Clean condenser, periodically, so as to remove dust, paper and whatever prevents air from circulating. For cleaning, use a brush with long bristles or a bolt of compressed air.

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#### WARNING

**When using compressed air, use personal protective devices in order to avoid accidents; wear protective goggles.**

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#### WARNING

**Never use sharp metal objects to carry out this operation; the correct operation of a refrigeration system largely depends on how clean the condenser is.**

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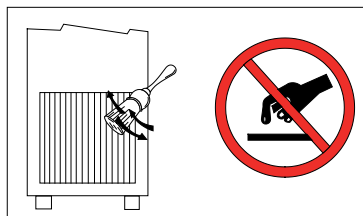


Fig. 21

### 6.4 ORDERING SPARE PARTS

In the event of breaking or wear of one or more parts, request the new ones directly to an authorized ICETEAM 1927 dealer, always detailing machine type and serial number printed on identification plate located on the back of the machine.

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#### WARNING

**Before using spare parts and/or supplied parts intended to come into contact with the product on the machine, it is absolutely necessary to clean and sanitize them as indicated in sec. 5 of this manual**

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## 6.5 SUPPLIED SPARE PARTS TABLE

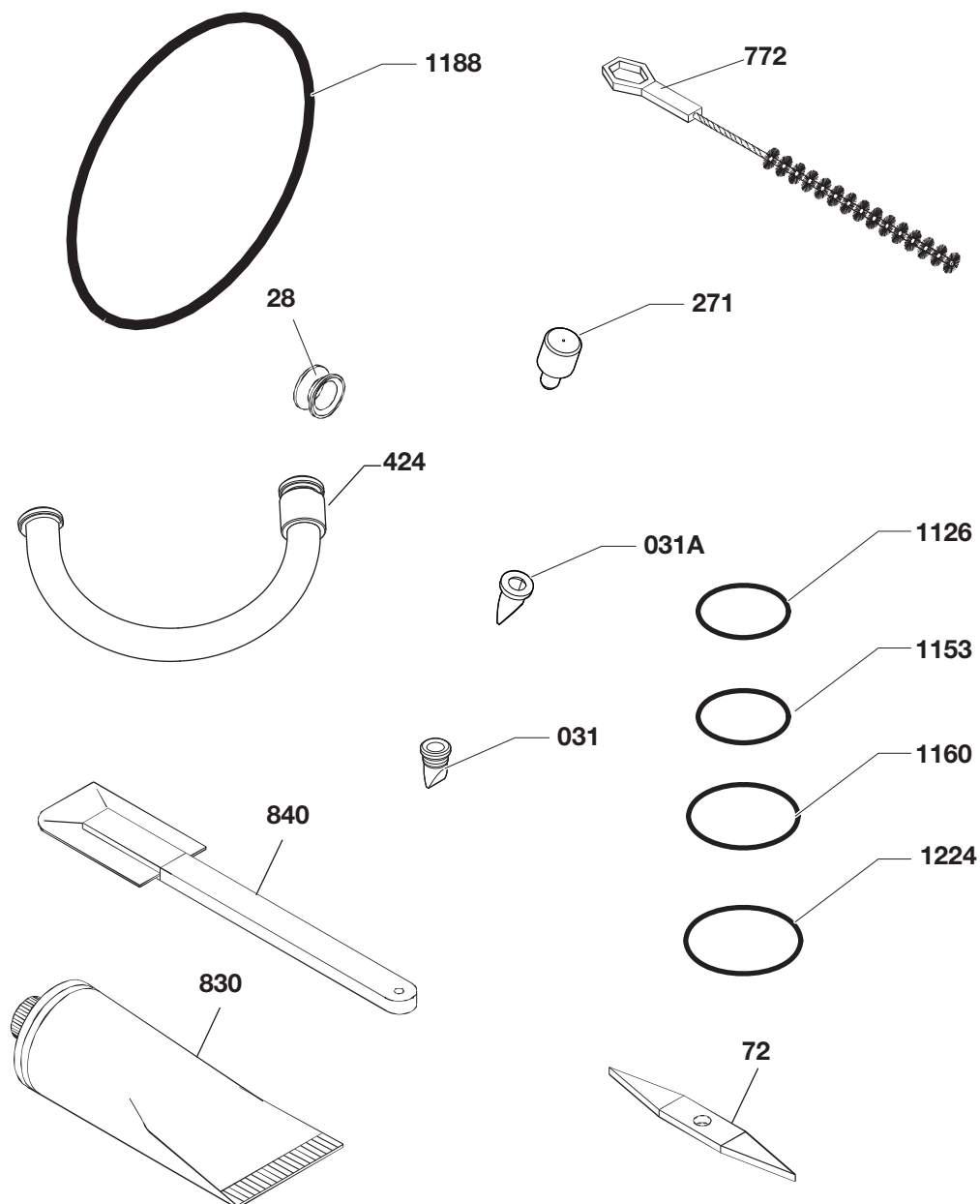


Fig. 22

Description	Position No.
Beater seal	28
Draw tube valve	31
O-Ring puller	72
Special O-Ring	303
Peristaltic pump tube	424
Brush	772
Food-grade lubricant tube	830
Ice cream spatula	840
O-Ring	1126
O-Ring	1153
O-Ring	1160
O-Ring	1188
O-Ring	1224



## 7. TROUBLESHOOTING

MALFUNCTIONS	CAUSES	SOLUTIONS
<b>Compressor starts and stops after a few seconds so ice cream does not reach right consistency</b>	Water-cooled machine: no water flow	Open condensation water shut-off valve  Make sure no tube is squashed or excessively bent
	Air-cooled machine: Air is not circulating	Check free space around machine
<b>After 15 minutes of freezing mix is not freezing The machine enters STOP mode</b>	No gas	Check for leak, weld and recharge
<b>Machine works but no ice cream is dispensed by the spigot door</b>	No sugar in the mix	Wait for ice cream inside cylinder to defrost, activate the cleaning function, then modify or change the mix
<b>Machine works but ice cream is too soft</b>	Too much sugar in the mix	Modify or change the mix
<b>Mix in tray</b>	Seal not in place or worn	Install seal if missing. Change seal if worn.
<b>Ice cream leaks from behind spigot door</b>	Seals not in place or not properly installed.	Check and restore
<b>A bacterial test proved ice cream has a high bacteria content</b>	Too many bacteria in the mix	Improve production procedure by sanitizing all containers, spoons, etc. and have the mix analyzed before it is put into the machine.
	Machine insufficiently cleaned and sanitized	Empty and wash machine carefully. Sanitize as indicated under chapter 6 of this manual.

