



DELTA

USER MANUAL NG MACHINES R290

ICE CUBE MAKERS / UNDERCOUNTER MODELS

NDP60

NG80

NG100

NG120

NG180

NG260

NG360

USER MANUAL NG MACHINES: ALFA / GALA
Ice Cube Makers - Self Contained Models

DELTA

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THIS MANUAL IS PART OF THE PRODUCT. READ IT CAREFULLY IN ORDER TO USE AND MAINTAIN THE EQUIPMENT CORRECTLY.
IT IS IMPORTANT TO KEEP IT FOR FUTURE TROUBLESHOOTING AND REFERENCE.

Warning

This appliance is intended to be used in household and similar applications such as staff kitchen areas in shops, offices and other working environments; farmhouses and by clients in hotels, motels and other residential type environments; bed and breakfast type environments; catering and similar non-retail applications.

The installation of this equipment should be done by the Technical Assistance Service department.

The socket should always be placed on an accessible location.

When positioning the appliance, ensure the supply cord is not trapped or damaged.

Do not locate multiple portable socket-outlets or portable power supplies at the rear of the appliance.

ALWAYS disconnect the power supply from the machine BEFORE any cleaning or maintenance service.

Any change needed on the electrical installation for the appropriate connection of the machine, should be exclusively performed by qualified and certified professional personnel only.

Any use by the ice maker not intended to produce ice, using drinking water, is considered inappropriate.

It is extremely dangerous to modify or to intend to modify this machine, and will void warranty.

This appliance is not intended for used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children being supervised not to play with the appliance.

Risk of child entrapment. Before you throw away your old refrigerator or freezer take off the doors.

This machine is not intended to be used outdoors nor exposed to the rain.

Connect to potable water supply only. To see "Installation" chapter.

The machine should be connected using the power cable supplied with the equipment.

IT IS MANDATORY TO GROUND THE EQUIPMENT. To avoid possible electric shock on individuals or damages to the equipment, the machine should be grounded pursuant local and/or national regulations.

THE MANUFACTURER SHALL BE HELD HARMLESS IN CASE OF DAMAGES ARISING DUE TO THE LACK OF THE GROUND INSTALLATION. To see "Installation" chapter.

In order to assure the proper operation and efficiency of this equipment, it is extremely important to follow the recommendations of the manufacturer, SPECIALLY THOSE RELATED TO CLEANING AND MAINTENANCE OPERATIONS, which should be performed mostly by qualified personnel only.

CAUTION:

Do not try to perform repairs. The intervention of non-qualified personnel, besides of being dangerous, could result in serious malfunctioning. In case of damages, contact your distributor. We recommend always using original replacement and spare parts.

Perform all discharge and recovery of materials or waste according the national regulations in force.

ITV reserves the right to make changes in specifications and design without prior notice.



This signal indicates "Risk of fire / Flammable materials" because of the use of flammable refrigerant.

For compression-type appliances that use flammable refrigerants should additionally consider the substance of the warnings listed below:

- Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction.
- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- Do not damage the refrigerant circuit.
- Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer.
- Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

In case of a flammable refrigerant leakage:

- Do not generate flames close to the appliance.
- Do not switch on/off or plug in/off the appliance.
- To ventilate immediately the area where appliance is located by opening doors and/or windows.
- To call to an authorized technical service.

Disposal of the ice maker: ITV encourages to follow the regulations of each country regarding eco-friendly disposal of electric and electronic devices such this one. User who is wanting to dispose of this equipment must contact the manufacturer and follow the method to appropriate differentiated collection for the subsequent treatments.

Reception of the Machine

Inspect the outside packing. In case of damages, MAKE THE CORRESPONDING CLAIM TO THE CARRIER. To confirm the existence of damages, UNPACK THE MACHINE IN THE PRESENCE OF THE CARRIER and state any damage on the equipment on the delivery document or on a separate instrument.

Always state the machine number and model. This number is printed on three locations:

(1) Packing: On the outside, it contains a label with the manufacturing number.



(2) Exterior of the Equipment: At the rear side of the equipment, there appears a label with the same characteristics as the previous one.

(3) Nameplate: At the back of the machine.



Check that in interior of the machine the installation kit is complete and comprises:

- Ice scoop, four legs and manual.
- Warranty and serial number.

CAUTION: All packing elements (plastic bags, carton boxes and wood pallets) should be kept outside the reach of children, as they are a source of potential hazard.

Installation

THIS ICE MAKER IS NOT DESIGNED FOR OUTDOOR OPERATION.

An incorrect installation of the equipment may cause damages to individuals, animals or other materials, being the manufacturer not responsible for such damages.

CAUTION:

The NG machines are designed to operate at room temperature between 41°F (5°C) and 109.40°F (43°C).

There may be some difficulties in ice- cube removal under the minimum temperatures. Above the maximum temperature, the life of the compressor is shortened and the production is substantially lower.

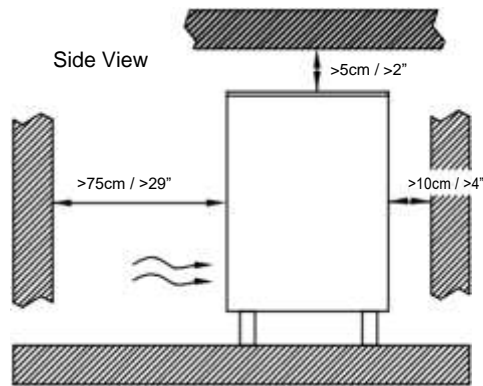
The NG machines with air-cooler condenser take the air through the front section, and drive it off through the lateral, back and also front louvers due to their new oblique condenser structure and placement. Do not place anything over the maker or in facing the front louver.

In case the front louver is not enough, the exit is either total or partially obstructed or due to its placement it will receive hot air from another device, we recommend, in case it is not possible to change the location of the machine, to install a water condenser unit.

The location must allow enough clearance for water, drain and electrical connections in the rear of the ice machine.

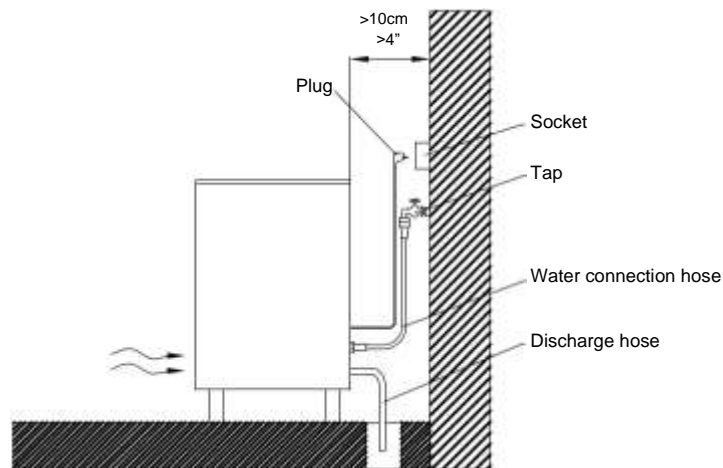
IT IS IMPORTANT THAT THE WATER PIPING DO NOT PASS BY OR NEAR SOURCES OF HEAT IN ORDER NOT TO LOSE ICE PRODUCTION.

MINIMUM DISTANCE TO OBSTACLES



* There's no minimum distance to obstacles in the sides of the machine

CONNECTION DIAGRAM



Thread the support legs to the base of the machine in the housing set to such end and regulate the height as to have the equipment perfectly levelled.

(1) Water and Drainage

Water quality has a remarkable influence on the appearance, hardness and flavour of the ice as well as, in the machines condensed by water, on the life of the condenser.

(2) Connections to the Water Network

Use a flexible food grade pipe.

Pressure should be established between 14 and 85 psi (1 and 6 Bar / 0.1 and 0.6 MPa).

If pressures overpass such values, install the necessary corrective devices.

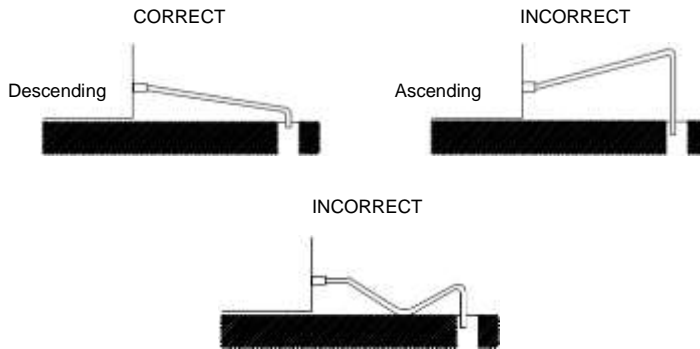
The water connection needs to be dedicated (only piece of equipment hooked to the water line). Water line from the water valve to the ice machine needs to be ¼" nominal ID tubing.

ATTENTION: The machine shall be plumbed according to applicable Federal State and local regulations.

(3) Connection to Drainage

Drainage should be located below the level of the machine, at 5.91 inches (150 mm) minimum.

It is convenient to use a 1.18 in (30 mm) inside diameter pipe with a minimum gradient of 0,36"/ft (3 cm/meter) (see figure).



(4) Electrical Connection

IT IS MANDATORY TO GROUND THE EQUIPMENT: To avoid possible discharges on individuals or damages to the equipment, the machine should be grounded pursuant local and/or national regulations as the case may be.

THE MANUFACTURER SHALL BE HELD HARMLESS IN CASE OF DAMAGES ARISING DUE TO THE LACK OF THE GROUND INSTALLATION.

The machine is supplied with a 6 feet length cable. In case the supply cable is damaged, it should be replaced by a cable or a special kit to be furnished by the manufacturer or post-sale service. Such replacement should be performed by qualified technical service only.

The machine should be placed in such a way that allows a minimum space between the back and the wall in order to guarantee an easy and a risk free access to the plug.

Safeguard the socket. It is convenient to install adequate switches and fuses.

Voltage and tension are indicated on the nameplate. Variation on voltage above the 10% stated on the nameplate could result on damages or prevent the machine from start-up.

ATTENTION: The appliance requires an independent power supply of proper capacity. See the nameplate for electrical specifications. Failure to use an independent power supply of proper capacity can result in a tripped breaker, blown fuse, damage to existing wiring, or component failure.

This could lead to heat generation or fire.

Start-Up

(1) Previous Checkup

- a) Is the machine leveled?
- b) Voltage and frequency are the same as those on the nameplate?
- c) Are the discharges connected and operating?
- d) Will the ambient temperature and water temperature remain in the following range?

	ROOM	WATER
MAXIMUM	109° F / 43° C	95° F / 35°C
MINIMUM	43°F / 10°C	35° F / 5°C

- e) Is water pressure appropriate?

MINIMUM	14 psi (1 Bar / 0.1 Mpa)
MAXIMUM	85 psi (6 Bar / 0.6 Mpa)

NOTE: In case input water pressure is higher than 85 psi (6 bar / 0.6 Mpa), install a pressure regulator.

(2) Start-Up

Once the installation instructions are followed (ventilation, site conditions, temperatures, water quality, etc.), proceed as follows:

- 1) Open the water inlet. Verify the no existence of leakages.
- 2) Open the door and remove the protection elements that are inserted behind the curtain.
- 3) Connect the machine to the electrical network.
- 4) Push the main switch placed on the front side.
- 5) Verify that there are no vibrations or frictions on the elements.
- 6) Verify that the curtain moves freely.
- 7) Verify that the nozzles send the water to the evaporator on the right direction (even spread).
- 8) After 10 minutes, verify that the water container has no leakages through the maximum level overflow pipe.

The technical installer shall invoice traveling expenses, labour cost hours and materials used.

Maintenance and Cleaning Procedures

CAUTION: Instruct the user about maintenance, informing that maintenance and cleaning operation as well as damages due to the lack of such operations are not included in the warranty.

If a good maintenance is performed, the machine will continue producing a good quality of ice and will be free of damages.

Maintenance and cleaning intervals will depend on the conditions of the site and water quality.

CAUTION: The ice machine's water system should be cleaned and sanitized at least twice a year.

On dusty environments, it might be necessary to clean the condenser on a monthly basis.

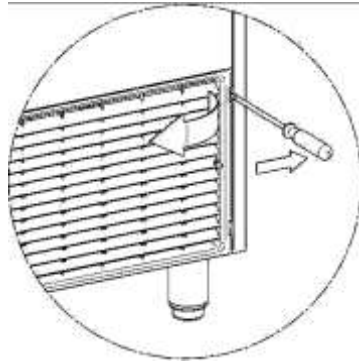
WARNING: Wear rubber gloves and safety goggles when handling Ice Machine Cleaner or Sanitizer.

WARNING: Unit should always be disconnected during maintenance/cleaning procedures.

Sanitize the ice storage bin as frequently as local health codes require, and every time the ice machine is cleaned and sanitized.

FRONT GRID REMOVAL

To access condensing unit remove front grid by pressing the two clips placed at right side.



CLEANING THE CONDENSER

Air Condenser

- 1) Disconnect machine.
- 2) Close water faucet.
- 3) Clean condenser using a vacuum cleaner, brush or low pressure air.

Water Condenser

- 1) Disconnect machine.
- 2) Close water faucet.
- 3) Disconnect water entry/exit from condenser.
- 4) Prepare a solution of Scale-Kleen in distilled water according to the manufacturer's instructions.
- 5) Distribute solution through condenser. (Solution is more effective at 35°-40°C).

WARNING! DO NOT USE HYDROCHLORIC ACID

Evaporator / Water Deposit

- 1) Switch off the machine.
- 2) Remove overflow pipe to empty water reservoir.
- 3) Prepare a solution of an appropriate product for the cleaning of ice machines (lime). Do not use hydrochloric acid. We recommend the use of Scale-Kleen (Everpure) prepared according to the manufacturer's instructions.
- 4) Fill water reservoir with the previous prepared solution.
- 5) Press the switch on the Panel control board and then turn on the machine. Keep the pressure on the PCB's switch during few seconds until water pump starts running. Let the water pump remains working and distributing the cleaning solution through the water circuit and after 30 min. the machine will stop automatically. Then, to power off the machine.

6) Remove overflow pipe to empty reservoir.

** Sanitary cleaning.

Repeat operation using approved (EPA/FDA) sodium hypochlorite food equipment sanitizer to form a solution with 100 to 200 ppm free chlorine yield. (Household bleach 12,5% can be used)

7) Switch on again the machine. Discard the two first harvests.

Cleaning the Ice Bin

1) Unplug the machine, turn off water supply, and empty storage bin of ice

2) Wipe with a cloth soaked in bleach and detergent

3) If white lime stains do not vanish, rub with some lemon or vinegar, wait for a few minutes and wipe with the cloth again.

4) Rinse with plenty of water, dry, and run the machine

Cleaning the Outside of the Machine

Follow the same procedure as for the ice bin.

Cleaning of the Inlet Filters

They are easily obstructed during the first days of operation, mainly with new piping installations.

Loose the hose and clean it under water.

Spray Nozzles and Connecting Pipes

1) Remove the curtain (it can be cleaned with vinegar or phosphoric acid, rinse, clean with bleach, rinse)

2) Remove the metal grill and clean likewise

3) Pull the connecting pipe upwards with some force.

4) Remove the spray nozzles by pulling them out one by one from the square pipe, and remove the pipe ends. Clean everything

5) Remove and clean the main filter of the water pump.

6) Assemble again the filter, the nozzles and the connection pipes.

ATTENTION: IT IS ESSENTIAL THAT SPRAY NOZZLES ARE COMPLETELY PERPENDICULAR, OTHERWISE SOME CUBES MAY NOT BE COMPLETELY FORMED.

7) Place the grill over the nozzles, with the back slots secure.

8) Install the curtain, ensuring that all of the strips can move freely.

9) Run the machine but discard the first set of ice cubes

Checking for Water Leaks

This must be done whenever maintenance is carried out on the machine: check all water connections, braces, tubes and hoses in order to eliminate leaks and prevent breakages and flooding.