

# Induction Designer Series

## R·T·C·S<sup>®</sup> mp Hold-Line Built-In Heat Retaining Models

### Installation, Operation and Maintenance Manual



#### models

**GI-HO/IN 450.....(Single Hob)**

**GI-HO/IN 900.....(2 Hobs)**

**GI-HO/IN 1350....(3 Hobs)**

**GI-HO/IN 1800....(4 Hobs)**

Original Instructions

## READ THIS MANUAL

### **▲Warning**

Read this manual thoroughly before installing, operating, or performing maintenance on the equipment. Failure to follow instructions in this manual can cause property damage, injury or death.

This manual must always be available for reference at the place of operation.

This manual is intended for kitchen consultants, cabinet designers, fabricators, installers, owners and operators of our appliances.

Owners, consultants, fabricators and designers:

In order for the induction appliance to function safely and normally, you must read and understand all specific and critical requirements when designing the location and the counter for the appliance.

Installers, operators and staff:

For your safety and safety of the others, you must observe all safety instructions during installation, operation and maintenance of the equipment.

Should you require technical assistance, call your factory authorized service agent or distributor. **Always have your model and serial number available when you call.**

Your Factory Authorized Service Agent

Service Agent Telephone Number

Your Local Equipment Supplier

Supplier Telephone Number

Model Number

Serial Number

Date of Installation

## ABOUT THIS MANUAL

Throughout this manual, the induction appliance model indicated on the cover page is referred to as **appliance, induction appliance or equipment.**

A period (.) is used in this manual as the decimal separator.

Original measurements are in metrics. Measurements in imperial are provided for reference.

Not ALL models, options and accessories are available in all geographical regions. Please consult your local equipment supplier for the availability of the specific products in your region.

## INSPECT THE SHIPMENT

Thoroughly inspect the equipment upon delivery. Immediately report to the delivery carrier, any damage that occurred during transportation and request for a written inspection report from a claim inspector.

Your shipment might include small packages of fasteners or silicone strips for installation. Keep all packages.

## KEEP THE PACKING SLIP

The packing slip attached to the shipment contains detailed information on all components. Keep the packing slip for reference.

## Safety Notices

### DEFINITIONS

#### **DANGER**

Indicates a hazardous situation that, if not avoided, will result in death or serious injury. This applies to the most extreme situations.

#### **Warning**

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

#### **Caution**

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.







#### **Notice**

Indicates information considered important, and is used to address practices not related to physical injury. For example, messages relating to property damage.

NOTE: Indicates useful, extra information about the procedure you are performing.

Reference: ANZI Z535.6-2011

### SAFETY SYMBOLS AND WARNINGS ON THE APPLIANCE

	This symbol alerts you to a hazardous situation that WILL or COULD cause serious bodily harm or death. Be alert and implement relevant safety precautions.
	<b>DANGER - HIGH VOLTAGE</b> This dangerous voltage warning symbol indicates a risk of electric shock and hazards from dangerous voltage.
	<b>Electromagnetic Field</b>
 <b>Warning</b>  <b>RISK OF FIRE OR ELECTRIC SHOCK! DO NOT OPEN!</b> To reduce the risk of fire or electric shock, do not remove or open cover. No user serviceable parts inside. Refer servicing to qualified personnel.	
<b>CAUTION</b>  <b>ATTENTION</b> DISCONNECT FROM SUPPLY CIRCUIT BEFORE OPENING	

### DISCLAIMERS

#### **DANGER**

Disregarding any safety instructions may cause harm to people, the surroundings, and the equipment. The manufacturer and/or authorized representative are not responsible for any damages or personal injury caused by failure to observe any safety instructions. Risks involved when disregarding safety instructions include, but not limiting to:

- Death or injury caused by electric shock.
- Burn injury caused by contacting overheated cooking surface, cookware, or oil and grease.
- Damage to the equipment caused by using unsuitable cookware.

#### **DANGER**

Do not install or operate equipment and/or accessories that have been misused, abused, neglected, damaged, or altered from that of original manufactured specifications.

#### **DANGER**

Contact the manufacturer if you intend to make any changes on the equipment. For safety reasons, always use genuine parts and accessories approved by the manufacturer or authorized representative. Refer to the warranty documents for your equipment.

#### **DANGER**

Owners and operators are cautioned that maintenance and repairs must be performed by an authorized service agent using only genuine replacement parts. The manufacturer will have no obligation with respect to any product that has been improperly installed, adjusted, operated or not maintained in accordance with national and local codes and/or installation instructions provided with the product or any product that has its serial number defaced, obliterated or removed, and/or which has been modified or repaired using unauthorized parts or by unauthorized service agents.

#### **DANGER**

Improper installation, adjustment, alteration, service, or maintenance of this appliance or installation of a damaged appliance can result in DEATH, INJURY, EQUIPMENT DAMAGE, and void the warranty.

**⚠ DANGER**

All utility connections and fixtures must be maintained in accordance with local and national codes.

**⚠ Warning**

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance. Never use flammable oil soaked cloths or combustible cleaning solutions for cleaning.

**⚠ Warning**

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

**⚠ Warning**

This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm. Operation, installation, and servicing of this product could expose you to airborne particles of glass-wool or ceramic fibers, crystalline silica, and/or carbon monoxide. Inhalation of airborne particles of glass-wool or ceramic fibers is known to the State of California to cause cancer. Inhalation of carbon monoxide is known to the State of California to cause birth defects or other reproductive harm.

**⚠ Warning**

Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, local/national regulations for disconnection / lock out / tag out procedures for all utilities including electric, gas, water and steam.

**Notice**

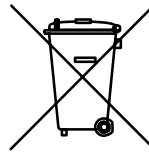
This appliance is not approved or authorized for home or residential use, but is intended for commercial applications only. The manufacturer and/or authorized representative will not provide service, warranty, maintenance or support of any kind other than in commercial applications.

**Notice**

Routine adjustments and maintenance procedures outlined in this manual are not covered by the warranty.

NOTE: Proper installation, care and maintenance are essential for maximum performance and trouble-free operation of your equipment. Visit our website [www.mtwkitchencare.com](http://www.mtwkitchencare.com) for manual updates, translations, or contact information for service agents in your area.

**CORRECT DISPOSAL OF THIS PRODUCT**



This marking shown on the product indicates that the product should not be disposed as household waste or regular commercial waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed correctly, you will help prevent potential harm to the environment or human health, which could otherwise be caused by inappropriate waste handling of this product.

For more detailed information regarding recycling of the product, please contact your local city office or your waste disposal service.

**⚠ DANGER**

Induction appliances, sent for disposal, can be brought back into operation and their use must be avoided.

NOTE: The appliance is built with common electrical, electromechanical and electronic parts. No batteries are used.

NOTE: The owner and operator are responsible for the proper and safe disposal of the appliance.

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# Section 1

## General Information

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### Description of Product

Built with a robust construction, our induction appliances are compact and powerful with the revolutionary RTCS® or RTCSmp® Technology (Realtime Temperature Control System).

The RTCS®/RTCSmp® Technology monitors continuously in realtime, the energy supply, temperature of the cook zone, and the state of the components such as the induction coil. This monitoring system ensures the most efficient energy transfer, as well as maximizes safety:

- Safety functions such as Pan Detection and Boil Dry Protection are therefore guaranteed.
- The appliance generates power only when a pan is in contact with the cook zone surface.
- When a malfunction occurs, the integrated fault diagnostic system reports the malfunction instantly.

Your induction appliance consists of a number of components that make designing a flexible and efficient kitchen an easy task:

- The components are compact and low profile.
- All power and communication connections can be connected conveniently through plug connections.

### Application

The RTCS®/RTCSmp® induction appliances are designed to be incorporated into a custom-built counter or an island suite. See section 2 Installation.

Four configuration options are possible because a single induction generator can power up to four heat retaining plates.

The induction RTCSmp® Hold-Line models are ideal for buffets, events and banqueting, providing constant and precise temperature to ensure top quality food presentations and appeal.

Operators can adjust the temperature in an increment of 1°C [5°F], within a large temperature range from 50°C to 100°C [122 to 212°F].

NOTE: To guarantee the reliability and performance of the appliance, you must use the recommended types and sizes of pans with the appliance. See section 3 Operation.

### Compliances



- **North American models:**

ETL recognized\* in compliance with UL 197, CSA C22.2 No.109, NSF-4. Complies with FCC part 18, ICES-001

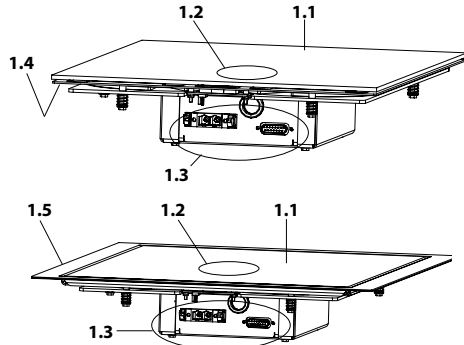
\*See section 2 Installation.

- **CE models** comply with the latest European Norms: EN 60335-1, EN 60335-2-36, EN 62233 (EMC/EMV)

## Components and Features

### 1. One (1) to four (4) Heat Retaining Plates

Energy transfer is carried out by induction coils located beneath the heating surface. Incorporated underneath glass are also sensors to control temperature accurately.



1.1	Ceran® glass cooktop
1.2	Digital display
1.3	Cable connectors.
1.4	A built-in mounting frame for flush-mount installation.
1.5	(Option) A built-in mounting frame for top-mount installation.

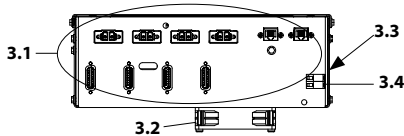
### 2. Control Unit



2.1	Rotary power switch, allows for continuously variable power adjustment.
2.2	RJ-45 or ethernet cable, to connect to the induction generator.
2.3	Temperature switch is enclosed in a strong, polymer housing, covered by a chrome sheet metal plate.

### 3. Induction Generator

All electronics are contained in a closed aluminum housing. All electrical connectors are accessible from the front of the generator.



3.1	Cable connectors.
3.2	Cooling fan and fresh air intake opening.
3.3	Hot exhaust vent. An air guiding system directs the exhaust air out from the generator.
3.4	Power supply connection. <b>Main power supply cable is NOT INCLUDED.</b>

### 4. Cables

With each heat retaining plate, a coil cable (2.5m [8.2']) and a sensor cable are provided.

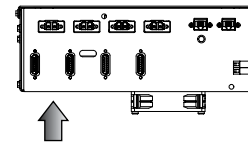
With each control unit, a 3-meter [9.8'] long, CAN/BUS RJ-45/ethernet Cable is provided.

**Main power supply cable is NOT INCLUDED.**

### Serial Plate Location

The serial plate specifies the model number, serial number, and electrical specifications of the appliance.

See illustration below for location.



### Model Number

The model number is located on the serial plate.

NOTE: The model number on the serial plate is the model number of the induction generator.

This manual covers the following models:

HO/IN 1-4 1800

### MARKETING IDENTIFIER

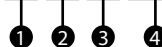
The marketing identifiers, which are used in brochures and other marketing communications, indicate the type of function and size of your appliance. To identify the specific configuration of your appliance, use the marketing identifier:

Marketing Identifier	Number of Heat Plates
HO/IN 450	1
HO/IN 900	2
HO/IN 1350	3
HO/IN 1800	4

### READING THE MODEL NUMBER

#### Induction Generator

Example: **HO/IN 1-4 1800**



1	Product Series	<b>HO</b> = Hold Line
2	Built-In	<b>IN</b> = Built-In Line
3	Number of Heat Plates	From <b>1</b> to <b>4</b>
4	Power (Watt)	<b>1800</b>



**Marketing Identifier**Example: **HO/IN 1800**

①
②
③

<b>1</b>	Product Series	<b>HO</b> = Hold Line
<b>2</b>	Built-In	<b>IN</b> = Built-In Line
<b>3</b>	Power (Watt) of Total Heat Plates	<b>450, 900, 1350, 1800</b>

**Accessories**

Induction cooking equipment requires **Induction Ready** pans to operate. Please consult your equipment supplier for a list of our pan selection and prices.

**Serial Number**

The serial number is located on the serial plate.

**READING THE SERIAL NUMBER**Example: **BA01 . 00014 . 1214**

①
②
③
④
⑤

<b>1</b>	Type of induction appliance: <b>BA</b> = Base Line Series (Counter-Top Cook-Top) <b>IN</b> = Built-In Series <b>WO</b> = Counter Wok Series <b>MO</b> = Module Line Series <b>HO</b> = Hold Line Series <b>GR</b> = Griddle Line Series
<b>2</b>	Last two(2) or three(3) digits of the appliance article number or part number that can be found on the invoice or the packing slip.
<b>3</b>	A sequential number: <ul style="list-style-type: none"> <li>• A 4-digit sequence number indicates that the appliance is not RTCS® nor RTCSmp®.</li> <li>• A 5-digit sequence number indicates that the appliance is either a RTCS® or RTCSmp® appliance.</li> <li>• A RTCSmp® appliance is marked as such on the serial plate.</li> </ul>
<b>4</b>	Month of manufacture: <b>01, 02, 03, 04, ...</b>
<b>5</b>	Year of manufacture: 2014 ( <b>14</b> ), 2015 ( <b>15</b> ), ...

## Section 2 Installation

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### IMPORTANT INSTALLATION SAFETY AND ELECTRICAL REQUIREMENTS

#### **⚠ Warning**

##### **Safety and Electrical Requirements**

**This appliance component requires additional features and components to comply with appliance and electrical standards.**

**It is the responsibility of the customer and installer to interpret and comply with all applicable national and regional health codes, safety and electrical standards in your jurisdiction.**

**This product requires the addition of:**

- **A suitable non-flammable electrical enclosure; a means to conceal and protect components and wiring.**
- **Grounding and bonding to the enclosure.**
- **An appliance rating plate that includes end manufacturer information.**
- **Investigation by local electrical authority. Warning, caution labels and other markings required by electrical and safety standards could be provided by local authority.**

**Depending on the application and configuration of this product(s), consider the addition of:**

- **Field supply connection terminals (terminal block).**
- **Branch circuit protection (breakers).**
- **Fans, ventilation or cooling systems and controls.**

#### **⚠ Warning**

**The induction appliance is designed to be installed into a custom built counter or an island suite.**

The appliance includes a number of components that have to be installed separately. Customers are responsible for providing proper installation mounting for the components.

Read ALL SECTIONS carefully, comply with all requirements listed and ensure inspection is done by qualified personnel.

**INSTALLATION SAFETY—DISCLAIMER****⚠ DANGER**

Installation must be carried out by registered installation contractors only.

The contractors are responsible for interpreting all instructions correctly and performing the installation in compliance with all applicable national and local regulations.

The warning signs and serial plates on the equipment must strictly be followed.

**⚠ Warning**

This equipment is intended for indoor use only. Do not install or operate this equipment in outdoor areas.

**⚠ Warning**

To avoid instability, the installation area must be capable of supporting the combined weight of the equipment and food product. The equipment must be level side to side and front to back.

**⚠ Caution**

Consultants, fabricators and designers must consult their counter-top suppliers when designing an appropriate support structure and clearance for the counter-top and the installation.

**Notice**

Induction equipment that is not installed correctly will have warranty voided.

**INSTALLATION SAFETY—CLEARANCE AND VENTILATION****⚠ DANGER****Risk of Fire or Shock or Equipment Failure**

All minimum clearances must be maintained. Air intake vents and exhaust vents must not be blocked or be restricted by the installation.

**⚠ Caution**

This equipment must only be operated under an approved ventilation system in accordance with all applicable national and local regulations. Exceptions may apply.

**Notice**

**The maximum ambient temperature for the induction appliance to operate must not exceed 40°C [104°F].**

**Failure to provide adequate ventilation will cause the appliance to overheat, to reduce power, or to shutdown.**

NOTE: Always maintain enough space between and around the equipment for maintenance and service.

**INSTALLATION SAFETY—ELECTRICAL****⚠ DANGER**

All electrical connections must be carried out by a certified electrical contractor, who is responsible for the correct rating and installation of the appliance. The contractor has to comply with all legal safety regulations and all applicable national and local electrical codes.

**⚠ Warning**

Markings and warning labels mounted directly on the equipment must be observed at all times and kept in a fully legible condition.

**⚠ Warning**

This equipment must be positioned so that the plug is accessible unless other means for disconnection from the power supply, such as circuit breaker or disconnect switch, is provided.

**⚠ Warning**

**CE Induction Appliance only:** If ground fault current protective switches are used, they must be provided with selective activation and designed for a minimum fault current of 30mA.

**Notice**

Ensure the supply voltage and the line current match the specifications given on the serial plate affixed to the appliance. Wrong voltage will damage the appliance. A stable power supply must be provided.

**Notice**

Always refer to the serial plate on the appliance to verify the electrical data. When the data listed on the serial plate is different than that listed in this manual, contact the manufacturer or the authorized representative.

**Notice**

All cables must be routed, protected and tension free.

**PERSONAL PROTECTION****⚠ DANGER**

All utilities (gas, electric, water and steam) must be OFF to all equipment and locked out of operation according to national/regional, as well as company approved practices during installation, maintenance and servicing. Always allow appliance to cool.

**⚠ DANGER**

Use appropriate safety equipment during installation, maintenance and servicing.

**⚠ DANGER**

Never stand, sit, or lean on the equipment! They are not designed to hold the weight of an adult, and may collapse or tip if misused in this manner.

**⚠ DANGER**

To avoid cardiac pacemaker malfunction, consult your physician or pacemaker manufacture about effects of electromagnetic field on your pacemaker.

**⚠ Warning**

Markings and warning labels mounted directly on the equipment must be observed at all times and kept in a fully legible condition.

**⚠ Warning**

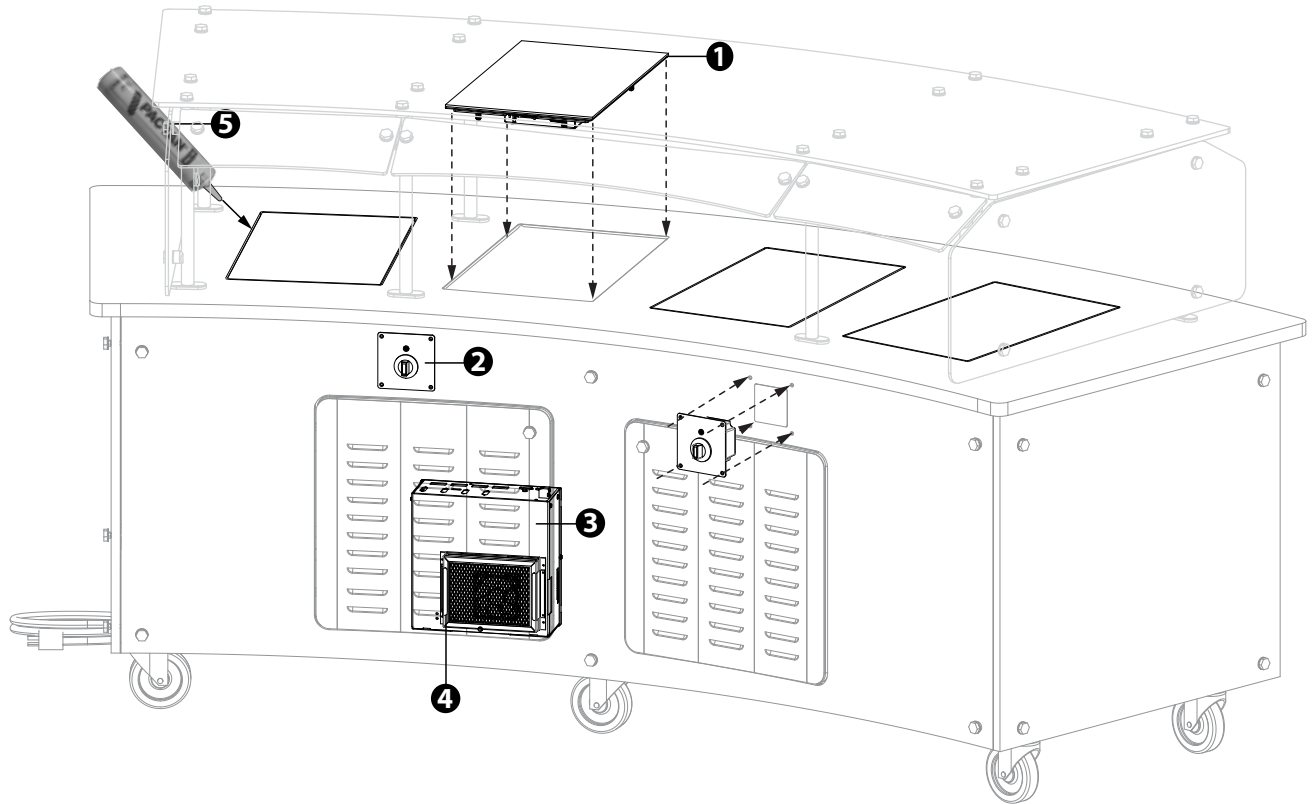
Risk of burns from high temperatures. You may get burnt if you touch any of the parts during operation. Surfaces close to the cooking area including side panels may get hot enough to burn skin. Use extreme caution to avoid coming in contact with hot surfaces or hot grease. Wear personal protective equipment.

**⚠ Caution**

Use caution when handling metal surface edges of all equipment.

## Exploded View of a Typical Installation

(HO/IN 3200 Heat Plates are shown as an example.)



①	Heat Retaining Plate
②	Control Unit
③	Induction Generator
④	(NOT Provided) Air Intake filter and holder. See details in <a href="#">Typical Applications on page 16</a> .
⑤	(NOT Provided) PACTAN silicone sealant for installation. Part Number = 70000015

## Planning for Installation

**1** The induction appliance is designed to be installed into a custom built counter or an island suite. **You must plan ahead for the location, ventilation and electrical requirements** for the induction appliance.

See sections:

- Electrical safety at the beginning of this chapter.
- [Cabinet Requirements on page 14](#)
- [Typical Applications on page 16](#)
- [Specifications on page 21](#)

**2** At the design stage, it is important to **consult your electrical contractor** to ensure your cabinet design and installation will meet all applicable electrical and safety codes. See sections:

- Electrical safety at the beginning of this chapter.
- [Electrical Specifications on page 26](#)
- [Electrical Installation on page 33](#)

**3** Your custom built counter or island suite must have **proper support structure** for the countertop, the appliance and cooking vessels. The support structure will depend on the installation method, the countertop material and thickness.

[Countertop Support Requirements on page 19](#)

**4** We recommend **consulting a mechanical contractor** to advise on the structure, ventilation methods and the overall design. See sections:

- [Cabinet Requirements on page 14](#)
- [Typical Applications on page 16](#)
- [Specifications on page 21](#)

**5** The equipment includes a number of **components** that have **to be installed separately**. Ensure you understand the clearance requirements and installation methods. See sections:

- [Exploded View of a Typical Installation on page 13](#)
- [Specifications on page 21](#)

**6** An exploded view of a typical installation is provided. It is very important to **seal all installation gaps** with silicone sealant to prevent water ingress. See sections:

- [Exploded View of a Typical Installation on page 13](#)
- [Installation Instructions on page 29](#)

## Cabinet Requirements



Read and understand all installation safety instructions at the beginning of Section 2 Installation.

### 1 PLACE THE INDUCTION APPLIANCE AWAY FROM HEAT AND MOISTURE

- Similar to other electronic equipment, induction equipment is sensitive to moisture and high heat.

#### Recommendations

- Do not position the air intake vent near steam or heat exhaust of another appliance.
- Never place your induction equipment next to any grease generating, heat generating or steam emitting equipment, such as oven, deep fryer, pasta cooker, steamer and water bath.
- Never install or place your induction equipment near or on a hot surface.
- Isolate and protect the electronic equipment and wiring with a separate compartment. Install heat shield such as an insulated wall or air gap.

### 2 PROVIDE ADEQUATE VENTILATION AND MANAGE AIRFLOW

- **Maximum ambient temperature for the induction appliance to operate must not exceed 40°C [104°F].**
- Fresh air intake and hot exhaust vents must not be blocked or restricted by the installation.
- Ensure the appliance does not pull in hot ambient air or steam from another appliance.
- The intake air and exhaust air must not mix. Hot exhaust must not be pulled back into the appliance through the fresh air intake opening.
- Air intake filter, installed on the appliance or installed with an air intake duct, must be easily accessible for weekly cleaning.

#### Recommendations

- Install the fresh air intake kit or provide a custom built fresh air intake plenum for low profile application.
- Install louvered opening or ventilation gaps to aid air movement and to allow hot exhaust to escape.
- Depending on the air path and the amount of natural air movement, install ventilation fan on the cabinet to pull quickly hot exhaust away from the electronic equipment. As an alternative, provide a separate exhaust air plenum.

NOTE: Additional air filters, ventilation fans, cooling controls, and air ducts are the responsibility of the customer and installer.

### 3 PREVENT WATER INGRESSION

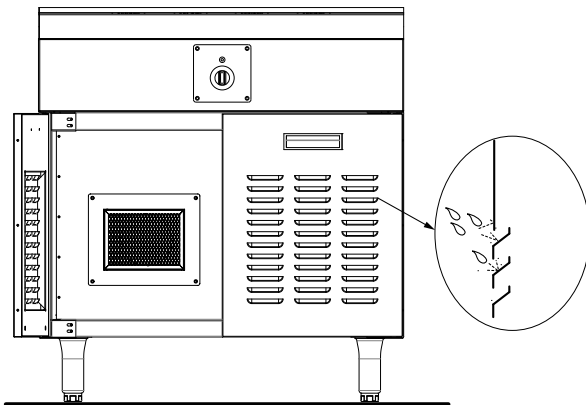
- Any ingress of water will damage the electronic equipment.

#### Recommendations

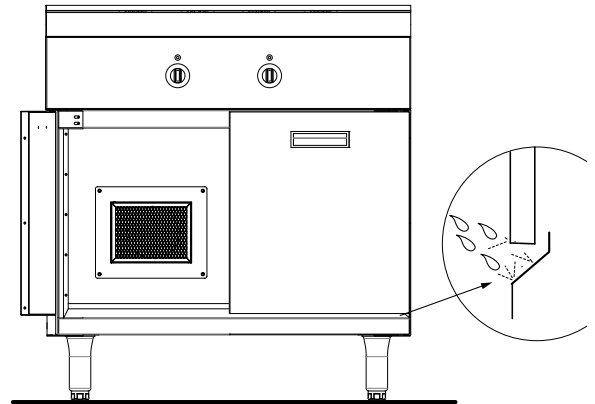
- Consider cleaning method and how it might impact your cabinet design.
- All mating surfaces and installation gaps between the countertop and the appliance must be bonded and sealed properly with silicone.
- Design and construct ventilation gaps in such a ways that they would prevent water ingress.

Examples below shown that bent flanges are created behind louvered openings (Example 1) or ventilation gaps (Example 2) to deflect water splashes.

Example 1.



Example 2.



### 4 ELIMINATE FIRE HAZARDS

- Comply with all ventilation and installation clearances.
- Keep the appliance away from combustible materials, vapors or liquids.
- Final cabinet construction and installation must comply with all applicable national and local electrical and safety codes.

### 5 PROVIDE SAFE DISCONNECT FROM POWER SUPPLY

- The appliance is intended to be permanently connected to fixed wiring.** Other means for disconnection from power supply, such as circuit breaker or disconnect switch, must be accessible. Consult your local authorities or your electrical contractor for details.

### 6 PROVIDE SERVICE CLEARANCE

- Provide enough space and service access for technicians to perform maintenance and service.

## Typical Applications

In this section you will find examples of the most common installations for the induction appliance.

Use the list of features below as your design guideline to ensure a proper cabinet is used for the application and installation.

### IMPORTANT DESIGN FEATURES

**Install the Induction Generator in a separate compartment away from heat and moisture. Ensure to have adequate ventilation:**

- ❶ The intake air must always be filtered. Install the filter at the front or at a location where it can be accessed easily for regular cleaning.
- ❷ The exhaust vent is located on the side of the generator. Consider to create a baffle to prevent the exhaust air from mixing with the fresh intake air. As an alternative, create an exhaust air plenum.
- ❸ Louvered openings or ventilation gap facilitate proper air-flow.

### Safe electrical environment:

- ❹ An enclosed compartment protects the electronic appliance and wiring from the environment.

Personnel are also protected from the electronics and the electrical cables.

- ❺ It is important that the coil cables are routed separately from other communication and power cables.

- ❻ **The appliance is intended to be permanently connected to fixed wiring.** Other means for disconnection from power supply, such as circuit breaker or disconnect switch, must be accessible.  
NOTE: National and local electrical codes dictate the electrical requirements. Consult your local authorities or your electrical contractor for details.

- ❼ Circuit breaker box shown.

### Water-tight environment:

- ❽ Mating surfaces between the appliance and countertop are sealed with silicone (not shown, see [Installation Instructions on page 29](#)).
- ❾ Design and construct ventilation gaps that could prevent water ingress (not shown, see [Cabinet Requirements on page 14](#)).



**APPLICATION EXAMPLE 1**

- The equipment is built into a large, enclosed compartment. There is ample of space to install the appliance and to service the equipment.
- The air filter is removable and mounted onto a panel behind the cabinet door.

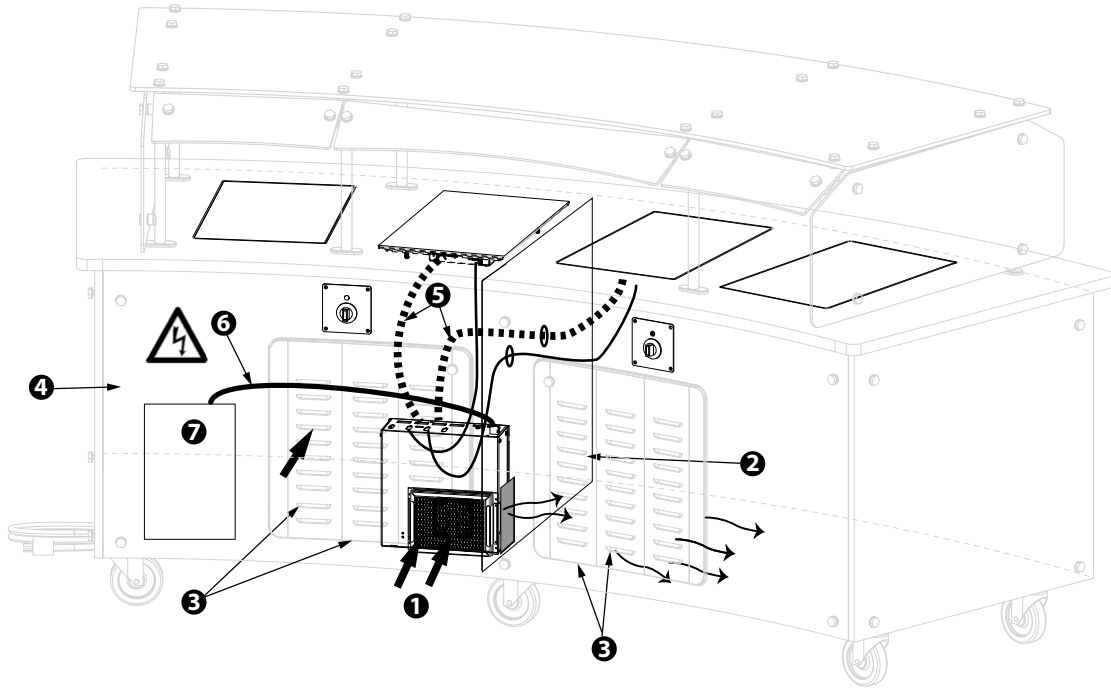
**⚠ Caution**

When a short, direct path to the air intake fan/ opening is used, ensure to provide finger guard on the fan.

- Illustration, bottom, shows an example of a compartment for the generator. The generator is

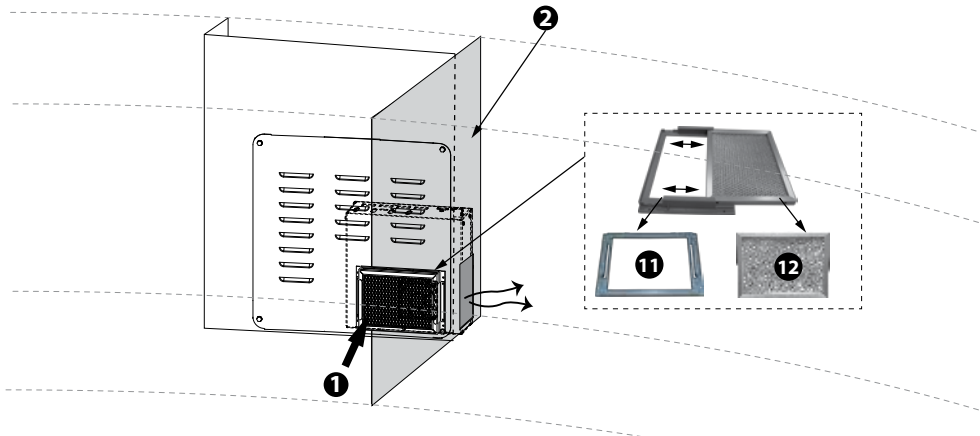
installed behind an access panel. Air filter is installed on the panel. An exhaust opening is created on the baffle or partition. The exhaust is vented into a separate channel or chamber and then outside the cabinet. Distance between the exhaust openings and any obstruction is minimum 40mm [1.57"].

- Air intake filter and holder shown are not provided. Illustration, item 11: Plastic holder, part number 72261030. This holder can be mounted directly onto the bottom of the cabinet. Item 12, reusable and dishwasher safe air filter, part number 71000003.
- See Design Features on page 16 for the descriptions of items 1 to 7 in illustration.



Application Example 1: Equipment Built Into A Large Compartment. (HO/IN 3200 Heat Plates are shown as an example.)

➡ Indicates the direction of airflow for fresh air.      ↪ Indicates the direction of airflow for exhaust air.



Application Example 1: Induction Generator Built Into A Compartment.

➡ Indicates the direction of airflow for fresh air.      ↪ Indicates the direction of airflow for exhaust air.

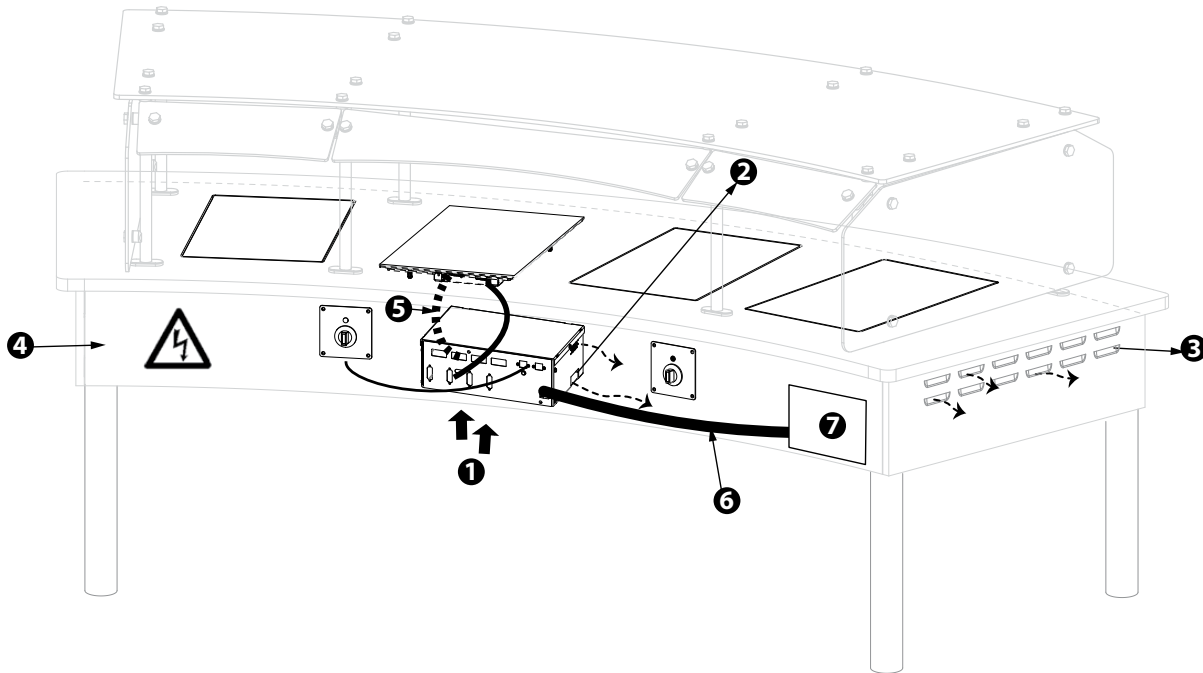
**APPLICATION EXAMPLE 2**

- The equipment is built into a small, enclosed compartment of a buffet counter with an open base.
- Illustration, bottom, shows an example of mounting the generator horizontally with the cooling fan on the bottom. Risers or brackets are used to secure the generator (below, item 13, not provided).
- This application requires a custom made, short fresh air intake path (below, item 10, not provided). The fresh air intake vent can be installed on the base of the compartment.

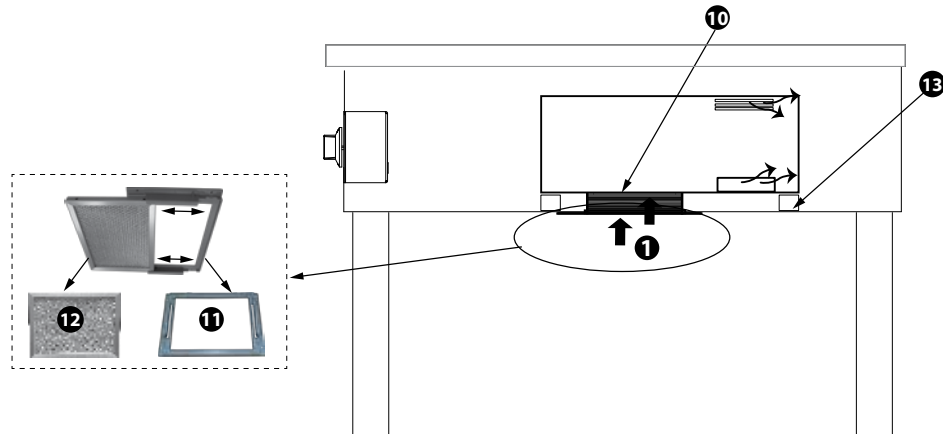
**⚠ Caution**

When a short, direct path to the air intake fan is used, ensure to provide a finger guard on the fan.

- Air intake filter and holder shown are not provided. Illustration, item 11: Plastic holder, part number 72261030. This holder can be mounted directly onto the bottom of the cabinet. Item 12, reusable and dishwasher safe air filter, part number 71000003.
- See Design Features on page 16 for the descriptions of items 1 to 7 in illustration.



Application Example 2: Equipment Built Into A Counter With An Open Base. (HO/IN 3200 Heat Plates are shown as an example.)  
 ➔ Indicates the direction of airflow for fresh air. ➤ Indicates the direction of airflow for exhaust air.



Application Example 2: Side View of Induction Generator and Custom Made Air Intake Path.  
 ➔ Indicates the direction of airflow for fresh air. ➤ Indicates the direction of airflow for exhaust air.

### Countertop Support Requirements

**⚠ Caution**

Consultants, fabricators and designers must consult their countertop suppliers when designing an appropriate support structure and clearance for the countertop and the installation.

**⚠ DANGER**

**Risk of Fire or Shock or Equipment Failure**

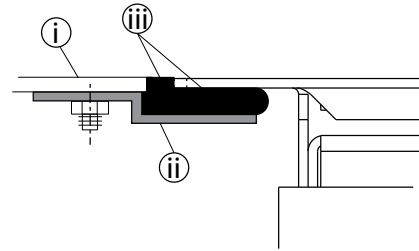
All minimum clearances must be maintained. Air intake vents and exhaust vents must not be blocked or be restricted by the installation.

The induction appliance can be installed either top-mount or flush-mount. This section provides examples of possible support structures for your consideration.

### Flush-Mount Installation On A Typical Countertop

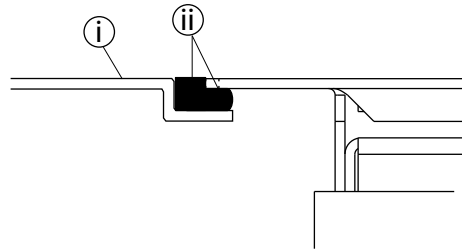
EXAMPLE 1

(i) A typical countertop of 2 to 3 mm thick. (ii) A support bracket is stud-mounted (or welded) onto the underside of the countertop. The bracket is bended to provide the required recess height. (iii) Silicone sealant shown.



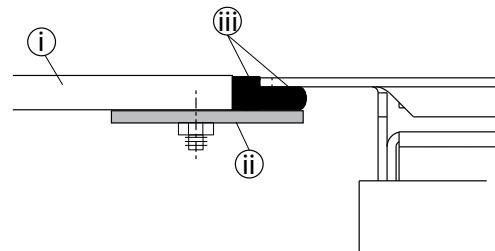
EXAMPLE 2

(i) A countertop is machined to provide a recess flange. Typically, a 1mm [18-gauge] thick countertop is used for this type of application. (ii) Silicone sealant shown.



EXAMPLE 3

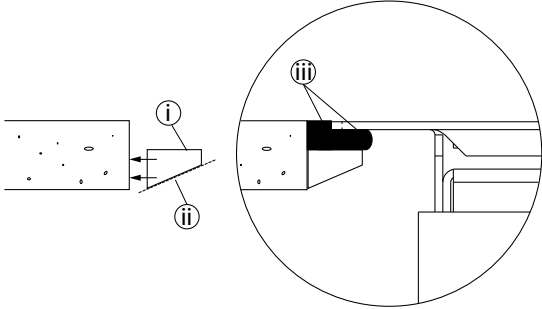
(i) A plate steel countertop is thick enough for the required recess height. (ii) A flat plate is attached to the countertop as the installation support. (iii) Silicone sealant shown.



**Flush-Mount Installation On Stone Countertop**

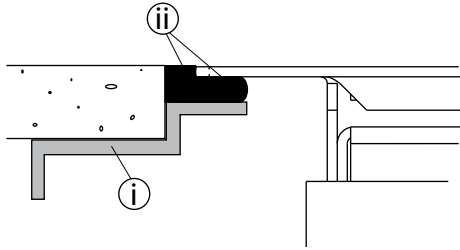
**EXAMPLE 4**

- (i) A stone block is glued to the stone countertop. (ii) A chamfer is necessary to provide adequate exhaust clearance. (iii) Silicone sealant shown.



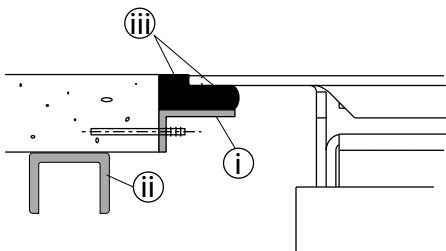
**EXAMPLE 5**

- (i) A support bracket (minimum 2mm [14 gauge]) is stud-mounted onto the underside of the countertop. The bracket is bended at both ends to provide the required recess height and to reinforce the countertop. (ii) Silicone sealant shown.



**EXAMPLE 6**

- (i) A support bracket (typical 1mm [18 gauge]) is mounted onto the cut-out area of the countertop. (ii) Additional reinforcement might be needed (typical minimum 2mm [14-gauge] bracket used). (iii) Silicone sealant shown.

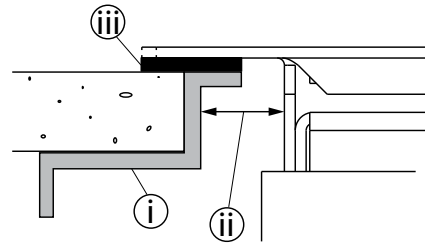


**Top-Mount Installation On Stone Countertop**

(Option, Heat Plate with Top Mount Installation Frame)

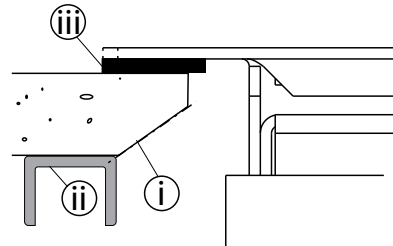
**EXAMPLE 7**

- (i) A support bracket (minimum 2mm [14-gauge]) is stud-mounted onto the countertop. The bracket is bended at both ends to provide the required air gap (below, item ii) and to reinforce the countertop. (iii) Silicone sealant shown.



**EXAMPLE 8**

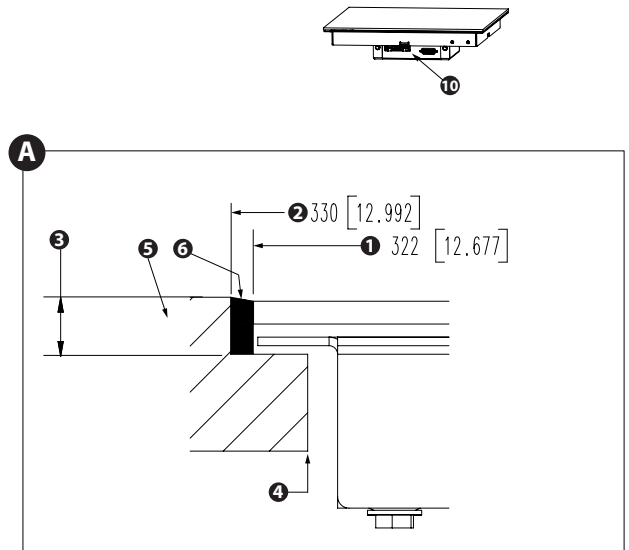
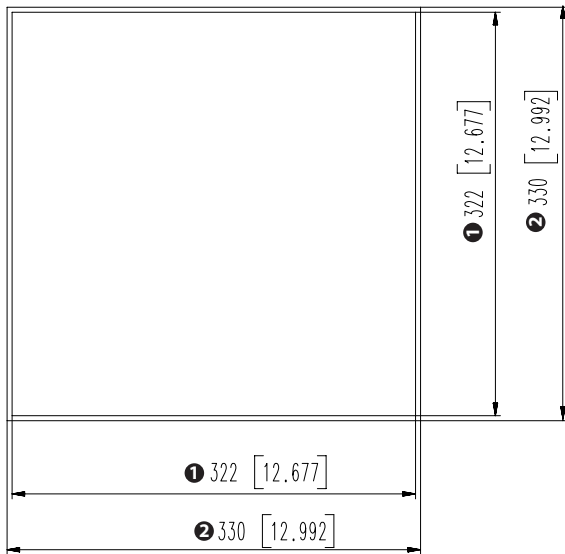
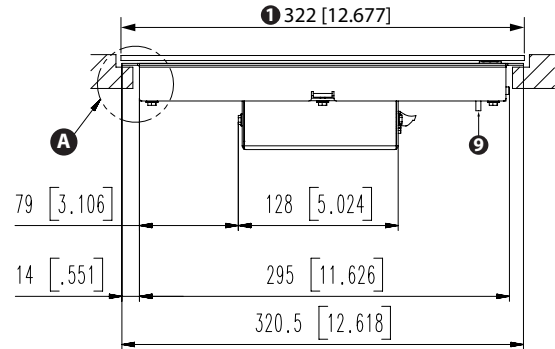
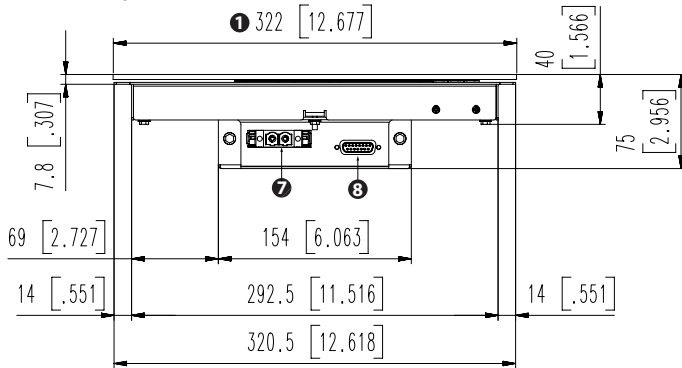
- (i) A chamfer is made in the stone countertop to provide the required air gap. (ii) Additional reinforcement might be needed (typical minimum 2mm [14-gauge] bracket used). (iii) Silicone sealant shown.



**Specifications**

**DIMENSIONS: HEAT RETAINING PLATE WITH FLUSH MOUNT INSTALLATION FRAME (STANDARD)**

Counter-top cut-out dimensions, see Detail A. Measurements in mm and [inch].

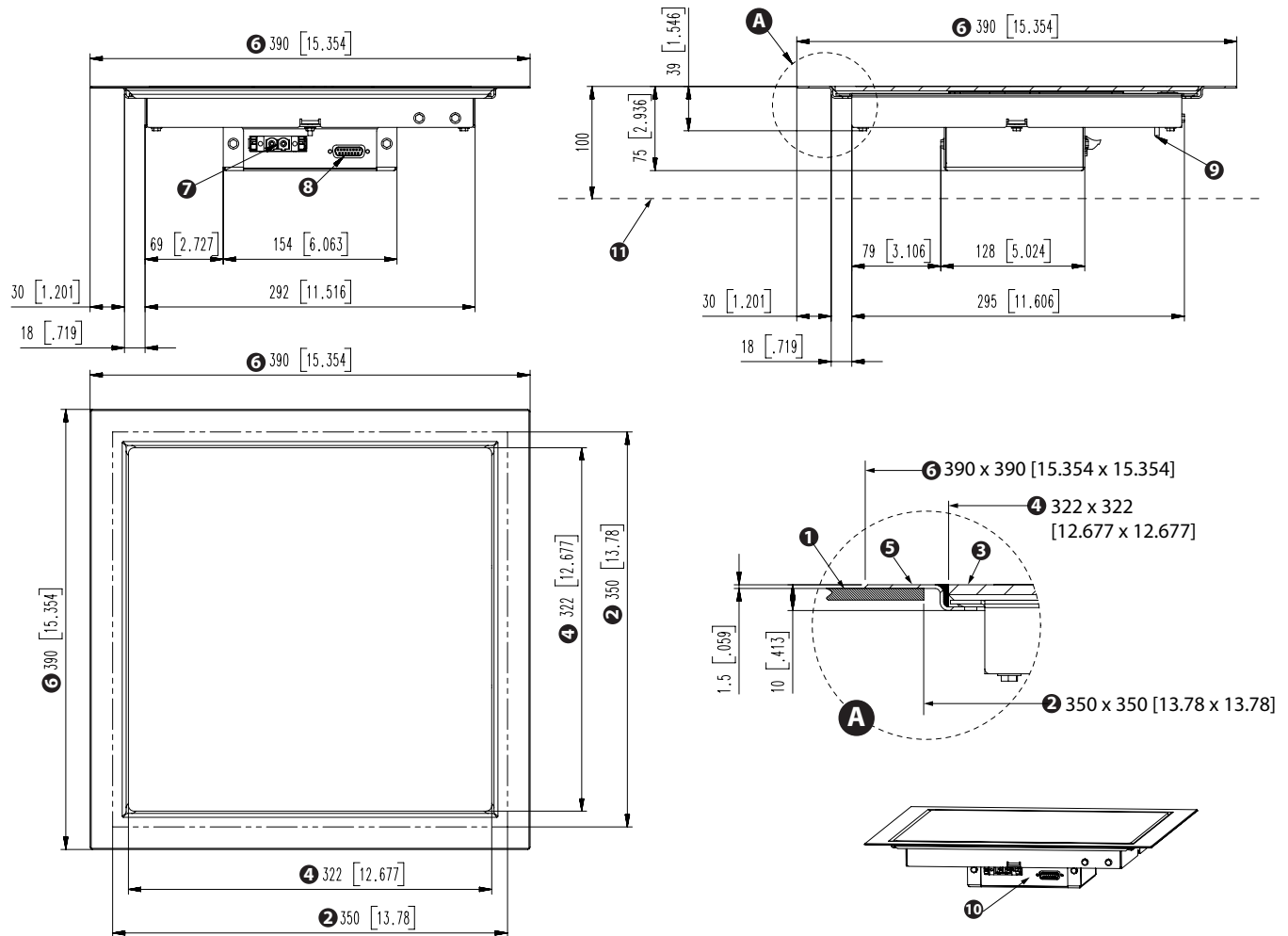


<b>A</b>	<b>Detail A — Counter-Top Cut-Out Dimensions</b>
	<b>1</b> Glass-top dimension
	<b>2</b> <b>Counter-top cut-out = 330 x 330 [12.992 x 12.992]</b> NOTE: Dimensions include widths for silicone joints on all four sides. Consider adjusting cut-out dimensions based on mounting methods. See section <a href="#">Parallel Installation and Clearance</a> on page 27.
	<b>3</b> <b>Recommended recess depth: approximate 8.00 to 8.64mm [0.315" to 0.34"]</b>
	<b>4</b> <b>Body clearance (width x depth x height): 300 x 300 x 100mm [11.81" x 11.81" x 3.94"]</b>
	<b>6</b> Silicone joint
<b>7</b>	Coil connection
<b>8</b>	Sensor connection
<b>9</b>	Grounding bolt
<b>10</b>	Front.

**DIMENSIONS: HEAT RETAINING PLATE WITH TOP MOUNT INSTALLATION FRAME (OPTION)**

Counter-top cut-out dimensions, see Detail A.

Measurements in mm and [inch].

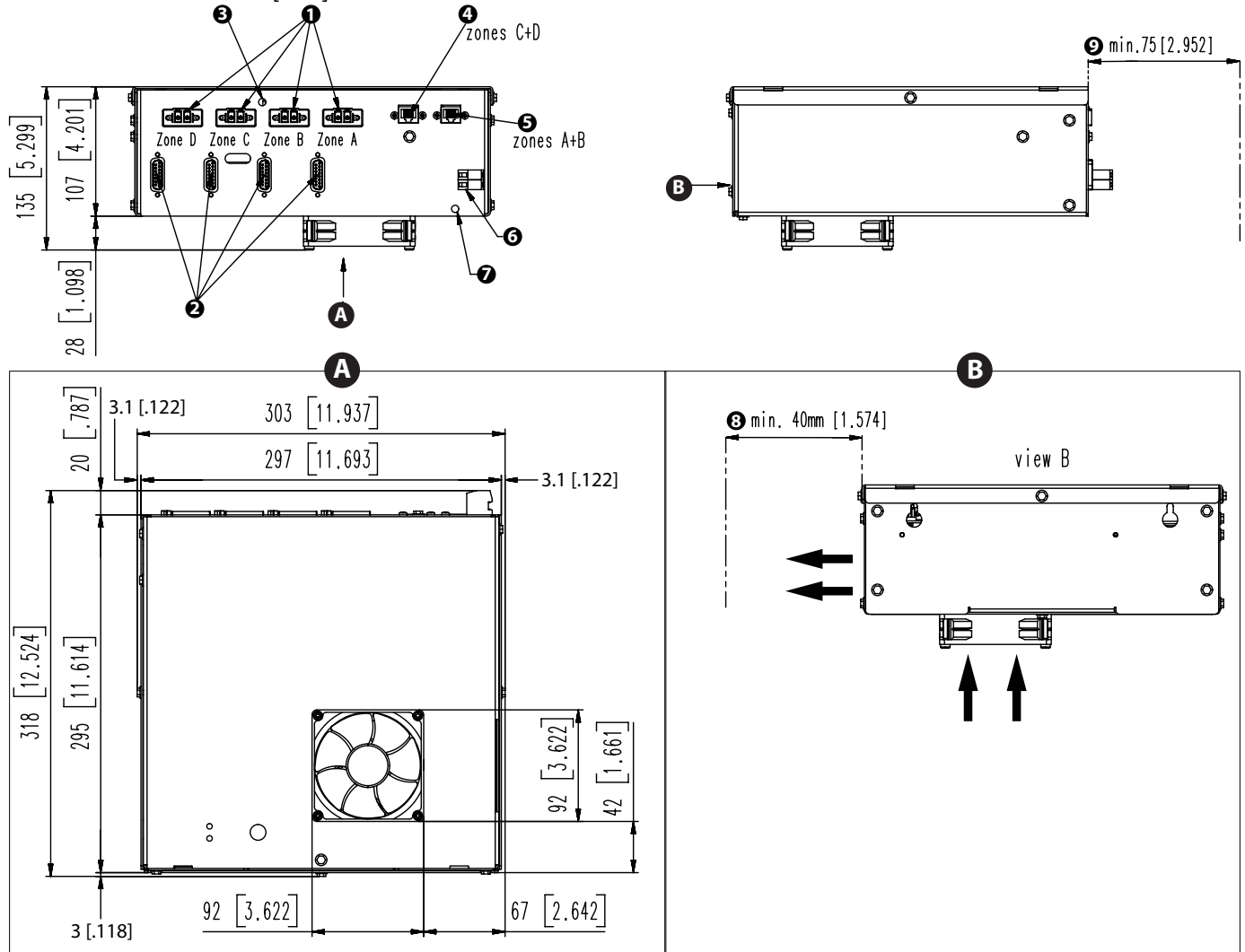


A	Detail A — Counter-Top Cut-Out Dimensions	
1	Counter-top	
2	<b>Counter-top cut-out = 350 x 350 [13.78 x 13.78]</b>	
3	Glass-top	
4	Glass-top dimension	
5	Installation Frame	
6	Installation Frame dimension	

7	Coil connection
8	Sensor connection
9	Grounding bolt
10	Front
11	<b>Body clearance, minimum 100mm [3.94"]</b>

**DIMENSIONS: INDUCTION GENERATOR**

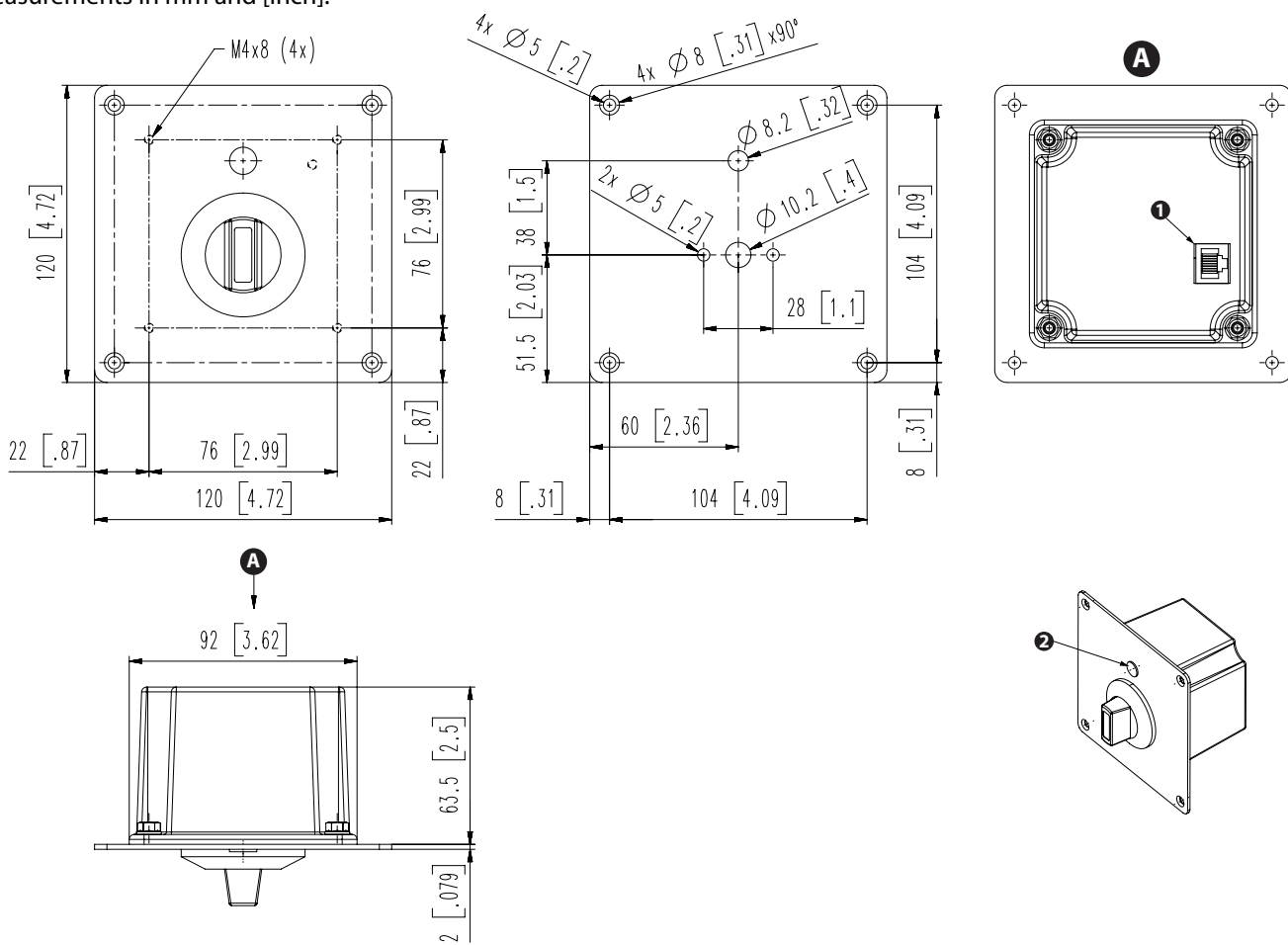
Measurements in mm and [inch].



	Indicates the direction of airflow
1	Coil connection
2	Sensor connection
3	Grounding for the heat plates
4	Control unit connection, zones C and D
5	Control unit connection, zones A and B
6	Mains power supply connection
7	Grounding for the mains power supply connection
8	<b>Installation clearance, air exhaust/air intake, minimum 40 mm [1.574"]</b>
9	<b>Installation clearance, cable bend/ cable connection/service, minimum 75mm [2.952"]</b>

**DIMENSIONS: CONTROL UNIT**

Measurements in mm and [inch].



<b>1</b>	CAN/BUS connection. Cable provided for each control is 3000mm [118"] long.
<b>2</b>	There are No Indicator Lights on the control units for RTCSmp Hold-Line models.



**CUT-OUT DIMENSIONS: CONTROL UNIT INSTALLATION TEMPLATE**

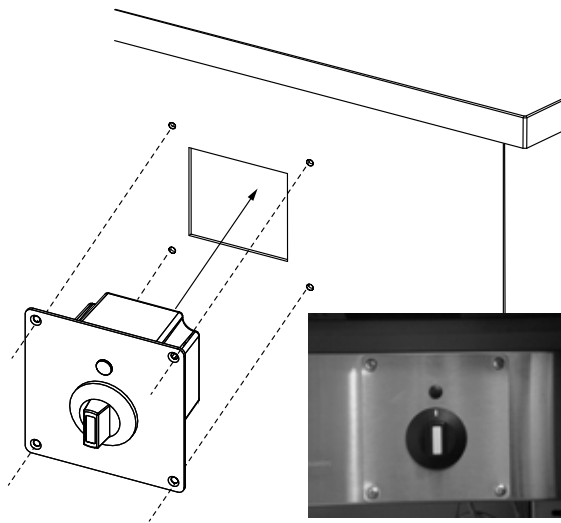
Two options to install: front-mount or back-mount.

NOTE: Install the unit in an **UPRIGHT** position.

NOTE: The unit must be mounted onto a non-combustible surface.

**Front-Mount Installation**

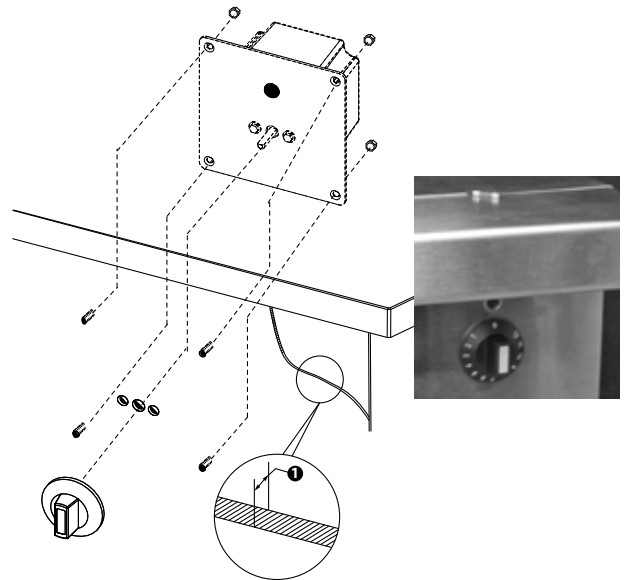
Mount the unit onto the front of a panel



**Back-Mount Installation**

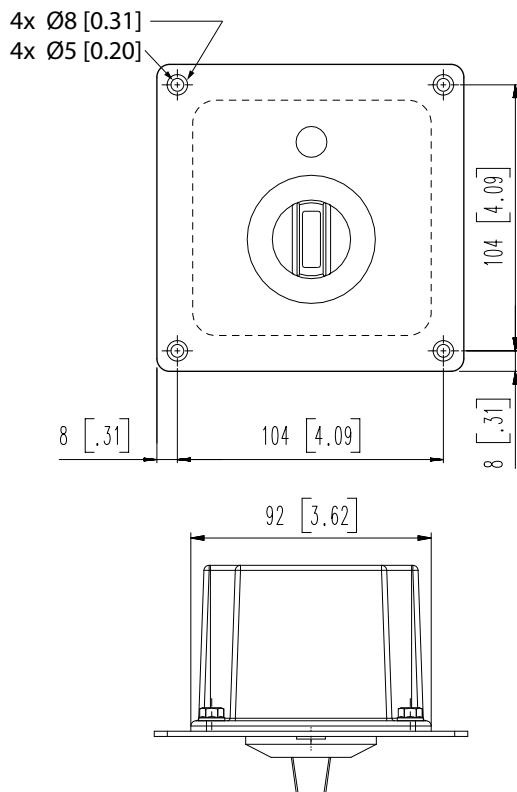
Mount the unit onto the back of a panel

NOTE: Thickness of panel (below, item ❶): maximum 3mm [0.12", 12 gauge]. This restriction ensures a proper grip on the knob and the indicator lamp will not be obstructed



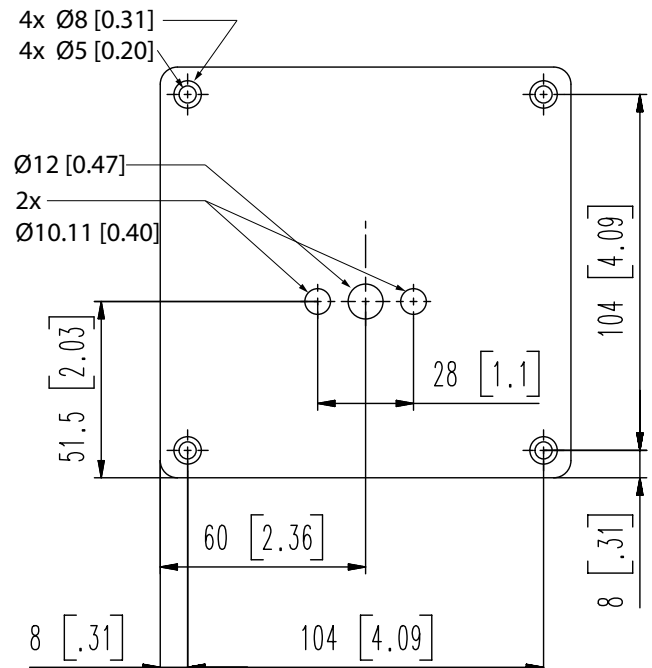
**CUT-OUT DIMENSIONS FOR HOLES / STUDS**

Measurements in mm and [inch].



**CUT-OUT DIMENSIONS FOR HOLES / STUDS**

Measurements in mm and [inch].



**INSTALLATION CLEARANCE**

Heat Retaining Plates:

See Item 11, Dimensions: Heat Retaining Plate with Flush Mount installation frame (Standard) on page 21

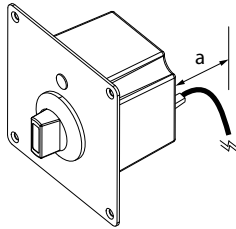
Or,

See Item 11, Dimensions: Heat Retaining Plate with Top mount Installation Frame (Option) on page 22.

Induction Generator:

See Items 8 and 9, Dimensions: induction generator on page 23.

Control Unit:



**Dimension a** — minimum clearance for cable bend/ cable connection / service clearance

**Dimension a** = minimum 76mm [3"]

**Configurations**

One induction generator controls up to 4 heat retaining plates. One control unit controls up to 2 heat retaining plates. All possible configurations for each model are listed in the table below.

Model	Configuration
HO/IN 450	
HO/IN 900	
HO/IN 1350	
HO/IN 1800	

**ELECTRICAL SPECIFICATIONS**

Model	Power	Voltage	Power Per Plate
HO/IN 1800	1800W 16A	120V 1Φ	450W
	1800W 8A	230V 1Φ	450W

**CABLES**

- Coil Cable, 2.5m [98"], to connect Heat Plate and Generator.
- Sensor Cable, 1m [39"], to connect Heat Plate and Generator.
- RJ-45 Cable, 3m [118"], to Control Unit and Generator.

**Operating Conditions**

For the appliance to function properly, the following conditions must be maintained.

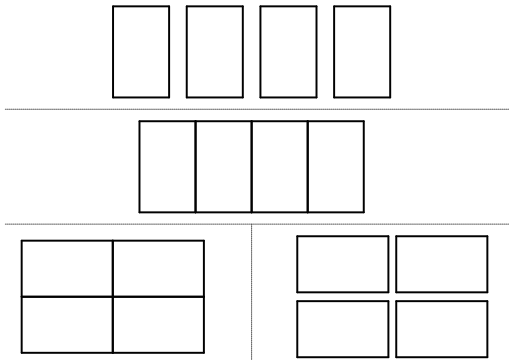
Maximum Tolerance of Nominal Supply Voltage	+6 /-10 %
Supply frequency	50/60 Hz
Ingress Protection class	IP X0 (Protection by customer is required.)
Minimum Diameter of Induction Pan	12cm [5"]
Maximum Ambient Temperature	In Storage, -20°C to +70°C (-4°F to +158°F)
	In Operation, +5°C to +40°C (+41°F to +104°F)
Maximum Relative Air Humidity	In Storage, 10% to 90%
	In Operation, 30% to 90%
Induction Generator, Maximum Fan Air Flow	96m <sup>3</sup> per hour (56.50 cfm) Minimum opening for fresh air supply required: total sum of 6000mm <sup>2</sup> (9.30 square inches)
Set Temperature Range	Celcius: 50 to 100 degrees Fahrenheit: 122 to 212 degrees

### Parallel Installation and Clearance

NOTE: The information provided in this section can only be used as a general guideline. Designers must consult their counter-top suppliers when designing the appropriate support structure and clearance for the counter-top and the installation.

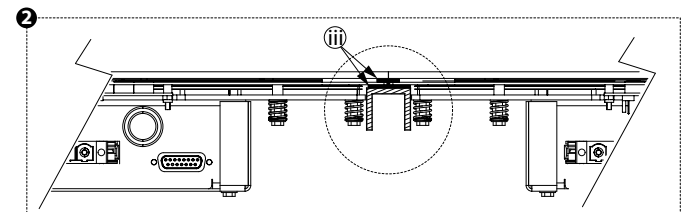
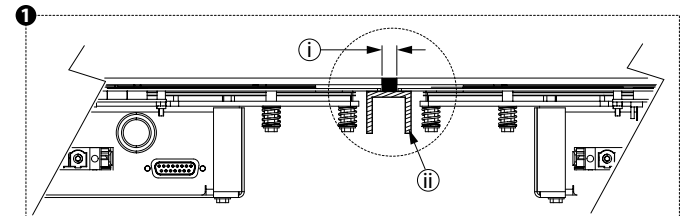
#### ARRANGING THE HEAT PLATES

The Heat Retaining Plates can be installed in a variety of arrangements. The plates can be placed in a row or in a rectangle, with gaps or without gaps (depending on the counter-top material and support structure). Examples:



### NON-STONE COUNTER-TOP AND SPACING REQUIREMENT

For non-stone counter-top materials, the heat plates can be put side by side, and the joints between the glass-tops must be sealed with silicone to ensure the installation is water-tight. Examples below show installation with and without gap.



1	<b>Example 1 — 4mm Gap Between Heat Plates</b>
	<p><b>i</b> A 4mm gap between glass-tops for silicone is recommended</p> <p><b>ii</b> Support beam shown</p>
2	<b>Example 2 — No Gap Between Heat Plates</b>
	<p><b>iii</b> Silicone sealant should be applied underneath the joint. Seal all crevices as required and follow practice outlined in all applicable national and regional food safety standards.</p>

### STONE COUNTER-TOP AND SPACING REQUIREMENT

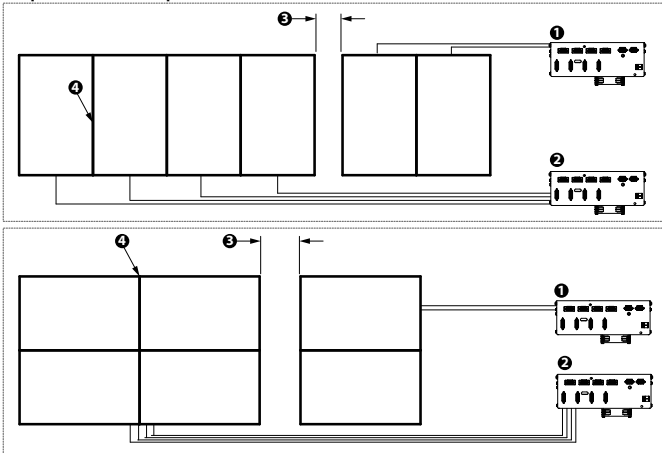
For structural strength and protection against water penetration, we recommend to keep a minimum gap of 101.6mm [4"] between cut-outs and provide reinforcement beam in-between units.



1	Silicone Seal around the glass for a water-tight installation.
2	Distance between cut-outs on stone counter-top, minimum 102mm [4"].

**SPACING REQUIREMENT FOR MULTIPLE APPLIANCES**

When installing two or more HO/IN appliances (each with one generator and one or more heat plates), a minimum gap of 75.0mm [2.95"] between the groups of heat plates is required. Examples:



1	HO/IN appliance 1, which has 1 generator and 2 heat plates.
2	HO/IN appliance 2, which has 1 generator and 4 heat plates.
3	Gap between heat plates from different appliances, minimum 75mm [2.95"].
4	The plates can be placed in a row or in a square, with gaps or without gaps (depending on the counter-top material and support structure).

## Installation Instructions

### INSTALLING HEAT RETAINING PLATE

**Notice**

To protect the induction equipment from water penetration, you must apply and bond the silicone adhesive properly to create a water-tight seal.

Before you begin the installation, it is very important to use isopropyl alcohol (minimum 70%) or equivalent to clean any surface areas where the silicone adhesive will be applied.

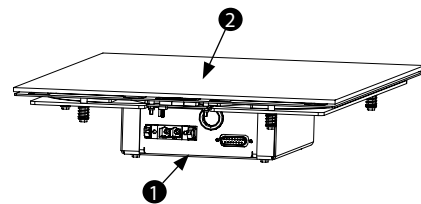
**NOTE: Standard heat plate is intended to be flush-mounted only.** Top-mount application requires top-mount version of heat plate (option, contact your equipment supplier for availability in your region).

**NOTE:** Countertop thickness of about 2mm is shown in the illustrations as an example. Brackets and fasteners for installation are not provided.

**NOTE:** Provide enough time for the silicone to cure per manufacturer's instructions. Do not start up the appliance during this time.

**NOTE: Orientation of the appliance:**

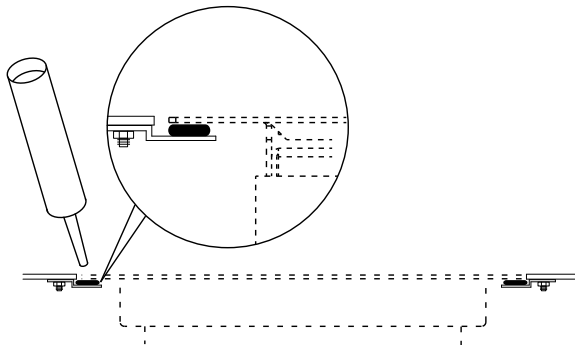
- (1) The connectors are located at the FRONT.
- (2) The digital display underneath the glass is located at the CENTER FRONT of the unit.



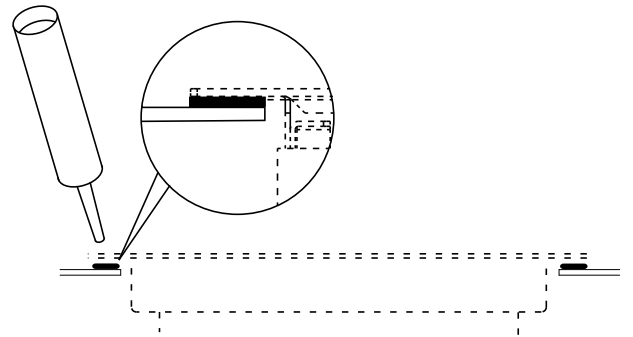
**To install a heat plate:**

1. Apply silicone adhesive PACTAN (not provided, part number 70000015) to:

**FLUSH-MOUNT Method:** The top of the support step where the built-in frame will sit.



**TOP-MOUNT Method:** The top of the counter surface where the built-in frame will sit.

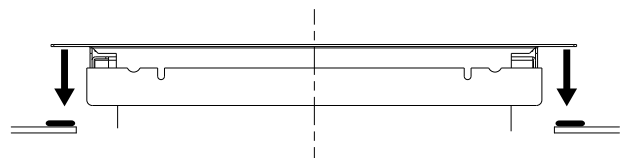


2. Carefully lower the appliance into the opening. Center the appliance.

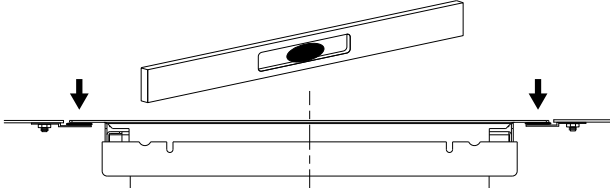
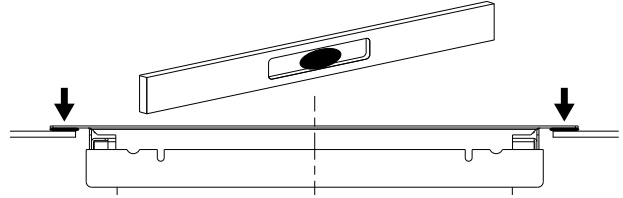
**FLUSH-MOUNT Method:**



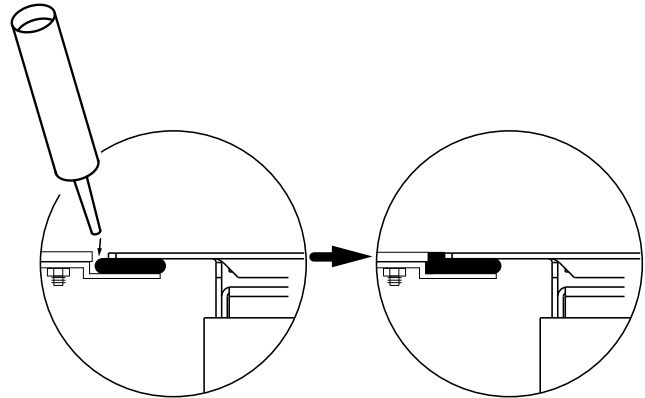
**TOP-MOUNT Method:**



3. At the same time, press the flange into the silicone and level the appliance. Wipe up any excess silicone.

**FLUSH-MOUNT Method:****TOP-MOUNT Method:**

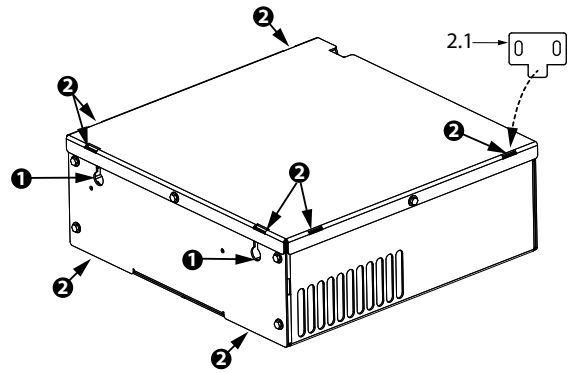
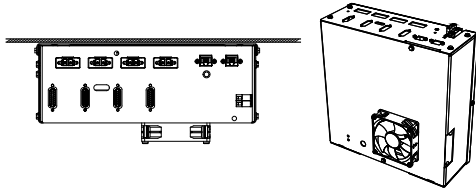
4. **FLUSH-MOUNT ONLY.** Apply food-safe silicone adhesive to fill the gap completely between the flange and the counter surface. Carefully wipe up any excess silicone.



**INSTALLING THE INDUCTION GENERATOR**

**Orientation**

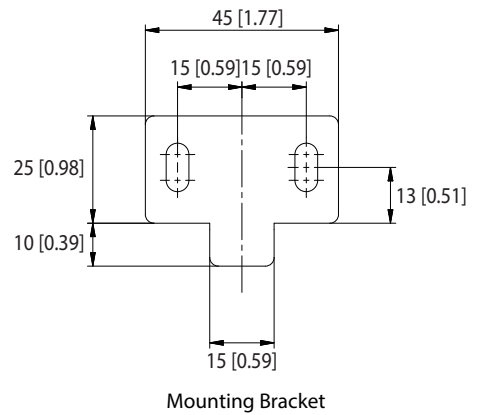
The generator can be mounted horizontally or vertically. However, consideration must be given to electrical connections, cooling (fresh air intake and exhaust) and service access.



**Mounting Methods**

The generator can be installed using one or both of the following methods:

- Use the two holes ( ❶ ) on the back side to mount the generator.
- Insert mounting brackets (left, item 2.1) into proper slots ( ❷ ) to mount the generator vertically or horizontally. Mounting brackets are provided.



**INSTALLING THE CONTROL UNIT**

NOTE: **Do not dis-assemble the unit. Do not remove or loosen any screws on the control unit.**

NOTE: Install the unit in an **UPRIGHT** position.

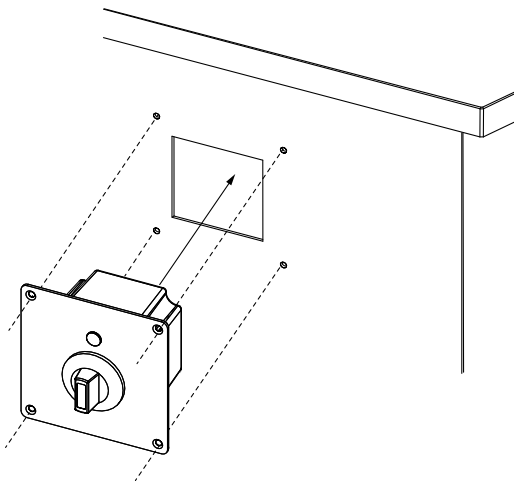
NOTE: The unit must be mounted onto a non-combustible surface.

NOTE: Thickness of panel: typical = 1.5mm [0.06", 16 gauge], maximum = 3mm [0.12", 12 gauge].

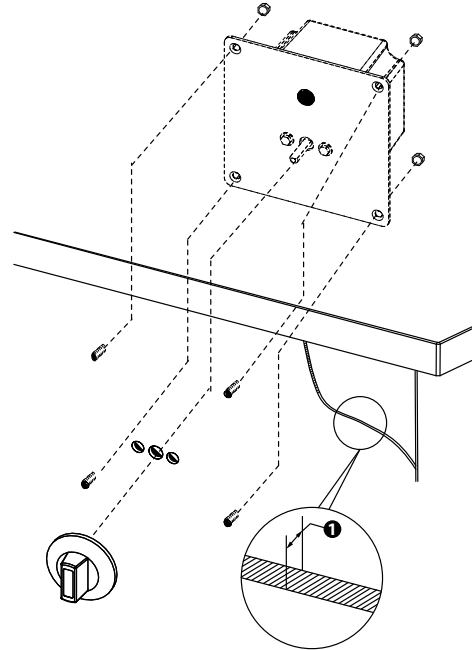
NOTE: Fasteners for installation are not provided.

**Front-Mount Installation**

- Fasten the unit onto the front of the panel.

**Back-Mount Installation**

- Remove the plastic knob from the unit and fasten the unit onto the back of the panel.



① Thickness of panel, maximum = 3mm [12 gauge]



**ELECTRICAL INSTALLATION**



Read and understand all installation safety instructions regarding Electrical and Personal Protection.

**Warning**

If ground fault current protective switches are used, they must be provided with selective activation and designed for a minimum fault current of 30mA. Multiple generators with a mains connection must not be connected to a single fault current protective switch.

**Warning**

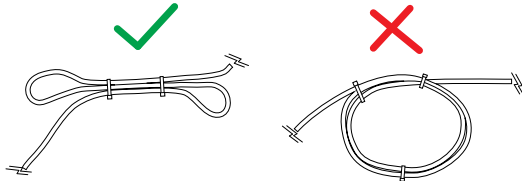
The electrician must equip the generator with a mains cable in accordance with the applicable regulations. Ensure the mains cable connection is absolutely correct.

**Notice**

Always route sensor and communication cables separately and away from the coil cables.

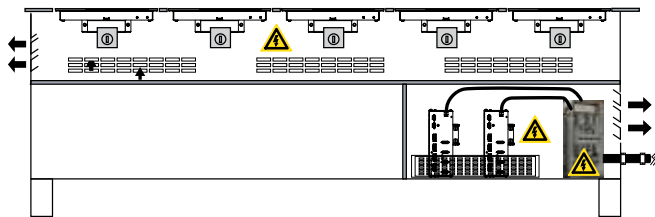
**Notice**

To manage electromagnetic interference, excess cable length can be dressed and tied in a serpentine or S-pattern, NOT coiled.



**Branch circuit protection / FI switch**

Best practice: When multiple cooking appliances are installed into the same counter, install a circuit breaker box or a FI switch box to protect the individual circuit.



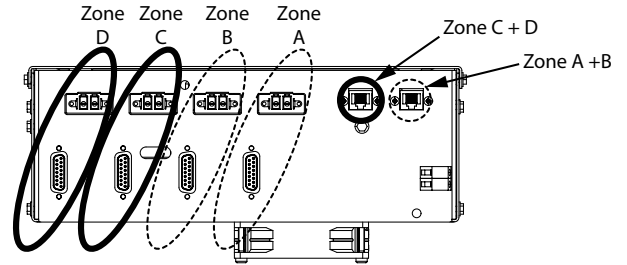
**Connecting the Components**

NOTE: Always follow instructions on the labels that are affixed next to the connectors and cables.

NOTE: Ensure the cables are connected correctly to the correct induction field.

NOTE: Ensure the insertion tongues of the RJ-45 cable (CAN/BUS) are fully engaged into the ports.

**Cook Zones**



Each Induction Generator can connect up to four Heat Retaining Plates. Therefore, there are four control zones on a Generator: Zones A, B, C, and D. Each zone has one coil and one sensor connector.

NOTE: Ensure to connect both coil and sensor cables from the same Heat Retaining Plate to the SAME ZONE.

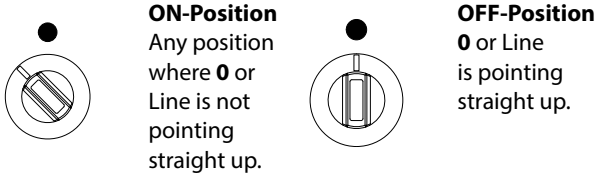
There are two RJ-45 connections. Each Control Unit can control up to two Heat Retaining Plates.

**To connect the components:**

1.

**⚠ Warning**

Ensure the control knobs are in the 0 (OFF) position BEFORE connecting the appliance to the electrical supply.



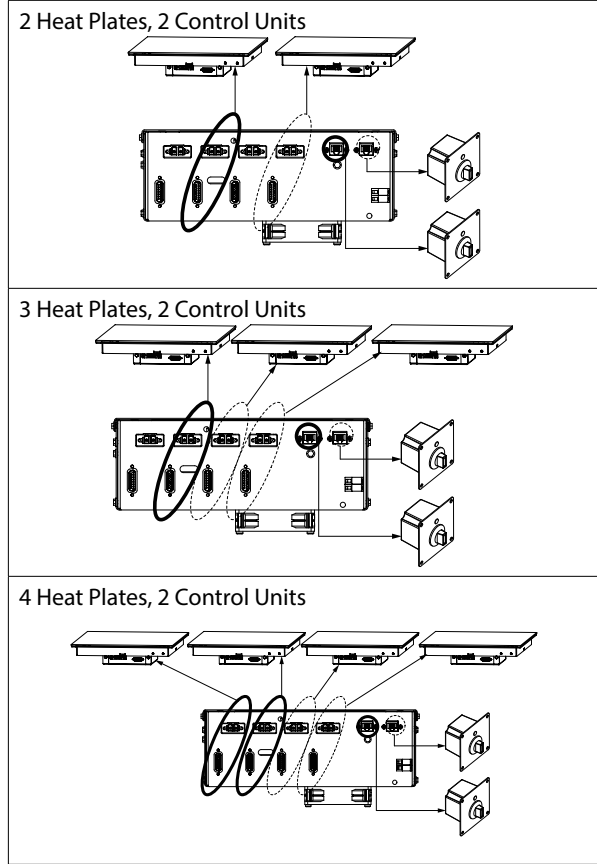
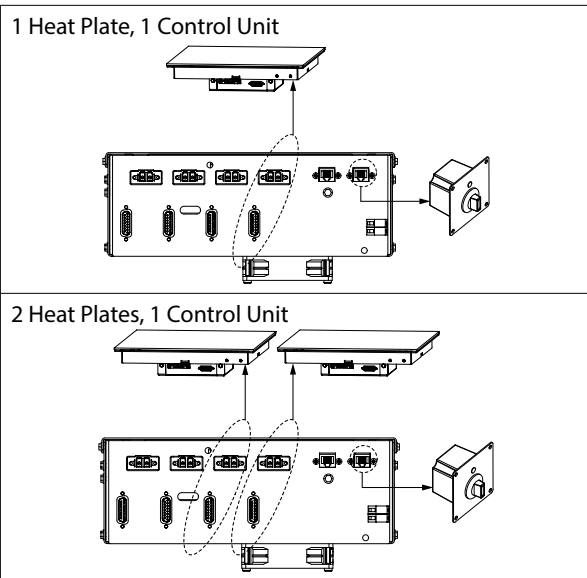
2. Remove all objects from the glass-top and check that the glass-top is neither cracked nor broken.

**⚠ Caution**

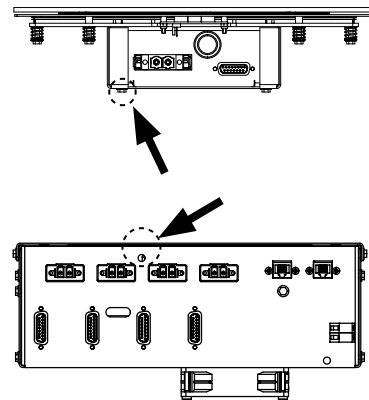
Do not continue if the glass-top is cracked or broken. Contact an authorized service agency for assistance.

3. All possible configurations are shown in the table below. Follow the diagram to connect the heat plate or plates to the generator (Connect the coil and sensor cables). Start from Zone A.

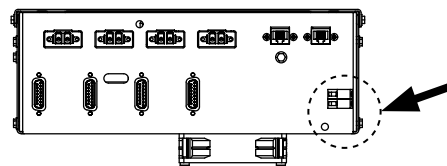
Then connect the control unit or units to the generator. (HO/IN 450W Heat Plates are shown as an example.)



4. Connect each Heat Plate to earth with the respective grounding bolts.



5. Connect the generator to the power supply. Wiring diagrams are provided for your reference, see Installation Appendix A: Main Power Supply Cable Wiring Diagrams on page 36



6. To ensure the appliance works properly, follow instructions in [Function Test](#) on page 35.

## Function Test



Read and understand all installation safety instructions at the beginning of this section.

Observe also ALL operation safety requirements in section *Operation*.

- Put some water in an induction pan and place it in the center of the cook-zone.

NOTE: Pan with a bottom diameter smaller than 12cm [5"] is not detected by the system.

- Turn the control knob to select a temperature between 50 to 100°C [122 to 212°F].
- The display shows the set temperature followed by a dot. Example:

- Within 2 seconds, the display changes from the set temperature (with dot) to the actual temperature and the dot blinks. This means energy is being transferred to the pan and the water is heated. Example:

- Take the pan away from the hob and power transmission stops. The display shows the current temperature without a dot. Example:

- Place the pan back on the hob and the heating process starts again. The dot blinks. Example:

- Turn the control knob to position **0** (OFF) and power transmission stops.

If the temperature is over 50°C [122°F], the display shows **hot**. Example:

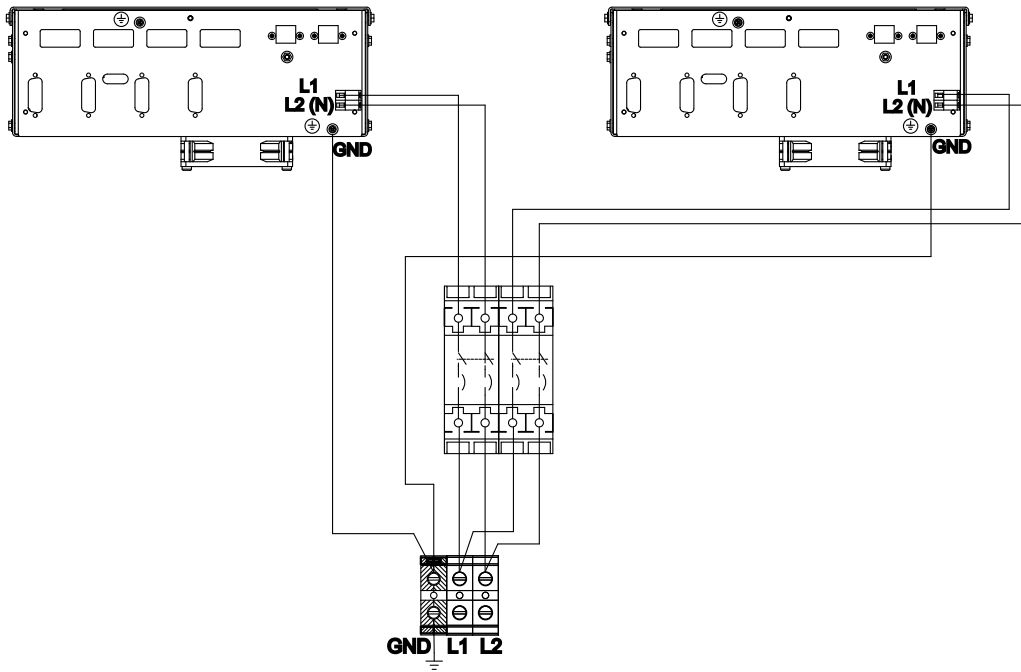
Otherwise, the display is off.

If the appliance does not function as expected despite using quality induction pans, refer to section 5 *Troubleshooting*.

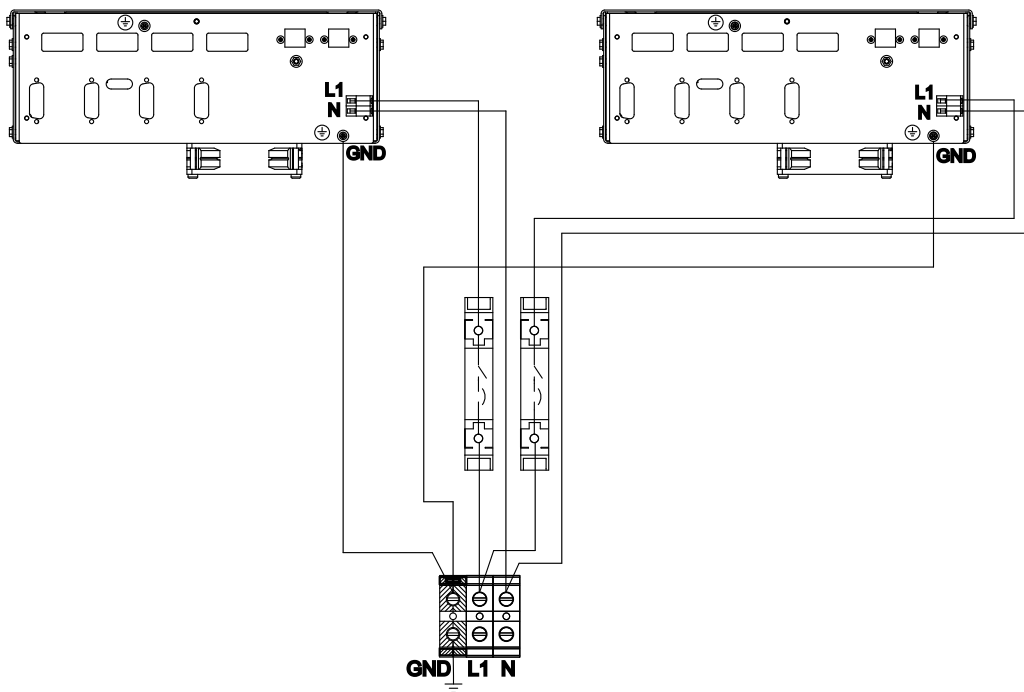
To test the efficiency of a pan for induction cooking, refer to section 5 *Troubleshooting*.

### Installation Appendix A: Main Power Supply Cable Wiring Diagrams

#### 208V HO/IN Appliances



#### 120V, 230V HO/IN Appliances



# Section 3 Operation

## OPERATION SAFETY—DISCLAIMER

### DANGER

The on-site supervisor is responsible for ensuring that operators are made aware of the inherent dangers of operating this equipment.

### DANGER

Risk of fire/shock/equipment failure. **All minimum clearances must be maintained. Do not obstruct vents or openings.**

### Warning

This equipment is intended for indoor use only. Do not install or operate this equipment in outdoor areas.

### Notice

The reliability of the appliance can only be guaranteed when it is used properly. The appliance must always be operated within the limits and/or the operating conditions provided in this manual.

### Notice

Avoid dropping any hard objects onto the equipment. Damages to the heating surface will shorten the life cycle of the equipment or incur high service costs.

### Notice—Models with Glass-Top Use Only Induction Suitable Cookware

Use only induction suitable cookware with proper sizes and made of proper material. The induction suitable cookware must be in good condition without any uneven, arched or partially detached bottoms.

Using unsuitable cookware can cause the appliance to fail prematurely, void your warranty, or incur high service costs.

### Notice—Induction Griddles / Braising Pans

NEVER heat any cooking pan on the griddle plate or in the braising pan. Heating cooking pan with these equipment will damage these equipment. Heat only food products on the griddle plate or in the braising pan.

## OPERATION SAFETY—PERSONAL PROTECTION

### Notice

Induction appliances are more powerful, heat up pans quicker, and cook food faster than conventional cooking equipment. Your induction appliance will require different use and care than other conventional equipment.

Do not operate the equipment without reading this manual and understanding all safety requirements.

### DANGER

If any part of the appliance is cracked or broken, **Stop and Immediately Turn Off the appliance.** Only if it is possible and safe, disconnect the equipment from main power supply. Do not touch any parts inside the appliance.

Disconnect electric power at the main power disconnect for all equipment being serviced.

Failure to disconnect the power at the main power supply disconnect could result in serious injury or death. The power switch DOES NOT disconnect all incoming power.

Contact an authorized service agency for assistance.

### DANGER

Do not operate any appliance with a damaged or pinched cord or a damaged plug. All repairs must be performed by a qualified service company.

### DANGER

Keep power cord AWAY from HEATED surfaces. DO NOT immerse power cord or plug in water. DO NOT let power cord hang over edge of table or counter.

### DANGER

To avoid cardiac pacemaker malfunction, consult your physician or pacemaker manufacture about effects of electromagnetic field on your pacemaker.

### DANGER

Never stand, sit, or lean on the equipment! They are not designed to hold the weight of an adult, and may collapse or tip if misused in this manner.

**⚠ Warning****Short Cook Time**

Induction appliances cook food faster than conventional cooking equipment. To avoid overheating and burning, check the cooking process frequently. Never leave the appliance unattended during operation.

**⚠ Caution**

Metallic objects are heated up very quickly when placed on the cook zone during operation. To avoid injury, DO NOT place any objects such as closed cans, aluminum objects (aluminum foils), cutlery, jewelry, or watches on the appliance.

DO NOT place any object such as paper, cardboard, or cloth on the cooking surface, because this creates a fire hazard.

DO NOT place credit cards, phone cards, tapes, or any objects that are sensitive to magnetism on the appliance.

DO NOT use the appliance for storage. DO NOT place any paper products, cooking utensils, cutlery, plastic vessels or food on the appliance.

**Notice**

Do not use the cooktop for food preparation such as cutting and chopping.

**⚠ Warning**

Risk of burns from high temperatures. You may get burnt if you touch any of the parts during operation. Surfaces close to the cooking area including side panels may get hot enough to burn skin. Use extreme caution to avoid coming in contact with hot surfaces or hot grease. Wear personal protective equipment.

**Cooking with Induction Glass-Tops Models****⚠ Warning****Never Leave An Empty Pan On Cooktop**

Induction appliances heat up empty pans very quickly. Never operate the appliance with an empty pan. Do not pre-heat pan. Always put food products, water or oil into the pan before turning on the appliance. Failure to do so will result in irreparable damage.

**Notice****Broil-Dry Protection**

Cook zones are monitored by temperature sensors. The sensors can detect overheating at the base of a cooking pan.

When an overheated pan (overheated oil, empty pan) is detected, the appliance stops transferring energy to the pan immediately. You must turn off the appliance and let it cool down before re-starting the appliance.

**⚠ Caution****Do Not Touch Overheated Appliance**

To avoid burn injuries, do not touch the appliance when a pan is overheated and take all the necessary precautions when removing the overheated pan.

**⚠ Warning**

Steam can cause serious burns. Always wear some type of protective covering on your hands and arms when removing lids or pans from the appliance. Lift the lid or pan in a way that will direct escaping steam away from your face and body.

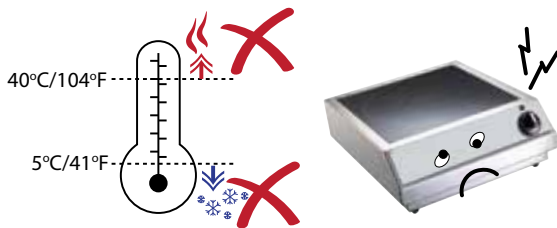
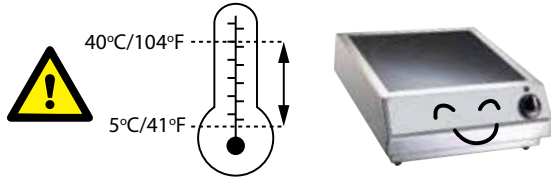
**Cooking with Induction Griddles/Braising Pans****⚠ Caution****Induction Griddles / Braising Pans**

A suitable grease-collecting means must be in place before operating appliance.

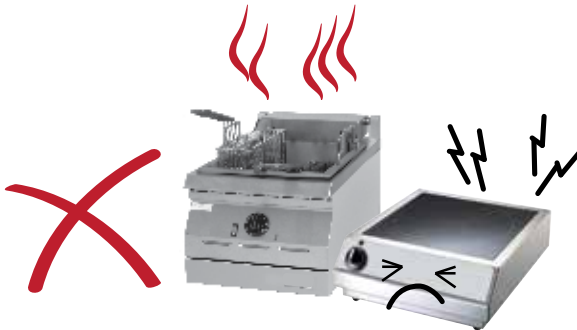
### Important Rules—Operation and Maintenance

Follow these simple rules to ensure reliable and repeatable performance of your induction equipment:

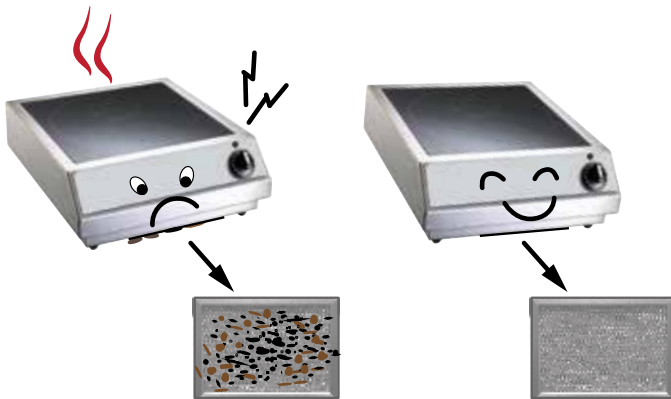
**1** Keep kitchen temperature below 40°C [105°F].



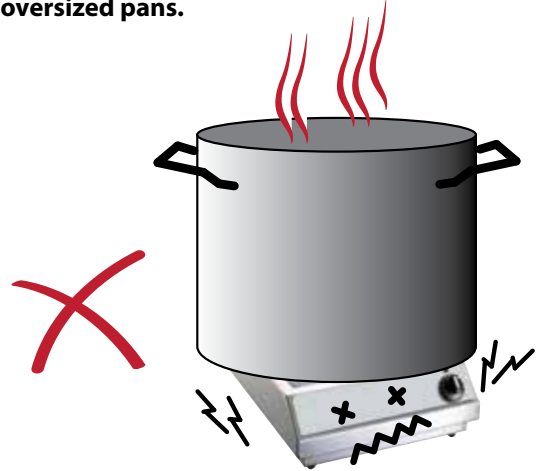
**2** Never place your induction equipment next to any grease generating or heat generating equipment.



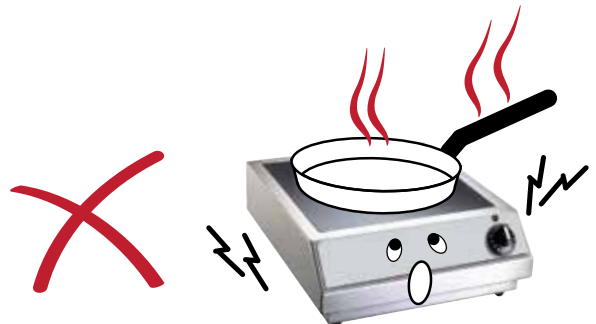
**3** Clean the intake filter at least once a week or as often as required.



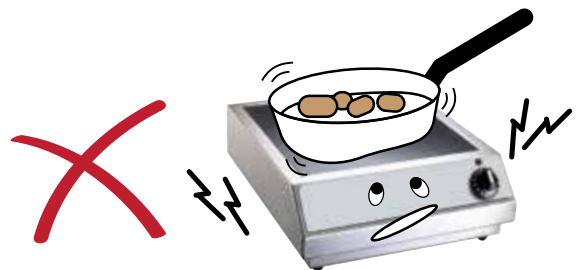
**4** Use only pans that fits the glass. Do not use oversized pans.



**5** Never pre-heat the pan. Place the pan on the cook zone only when you are ready to cook.



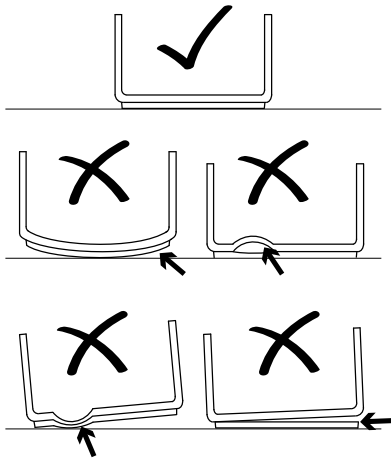
**6** Do not use dented pans because it will cause damages to the electronics.



## Proper Induction Chafing Dish or Pan

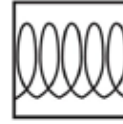
### CONDITION

- Pans with layer separation (outward and inward bubbles), arching or partially detached bottoms must be replaced.
- When these pans are used, the sensors under the glass-top cannot detect temperature correctly. These pans will overheat the sensors and eventually will damage the sensors and the generator. (Below, examples of good and bad pans in cross-sections.)



### MATERIAL

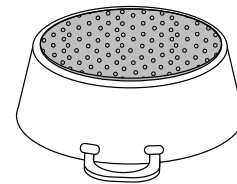
- **USE** cookware made of **conductive and magnetic** materials. If the pan bottom attracts a magnet, the pan is suitable for induction cooking. Look for cookware that is labeled **suitable for induction** or with an induction compatible symbol.



- **DO NOT USE** cookware made of aluminum, copper, glass, ceramics or conventional stainless steel.

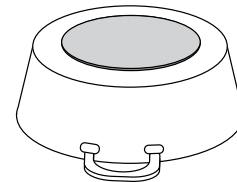
- NOTE—Aluminum inserts on bottom:

Cookware base inserted with areas of aluminum reduces the magnetic area for induction cooking. The appliance may supply less energy to the cookware or have difficulties in detecting the pan.



- NOTE—Non-magnetic cookware with a small magnetic base:

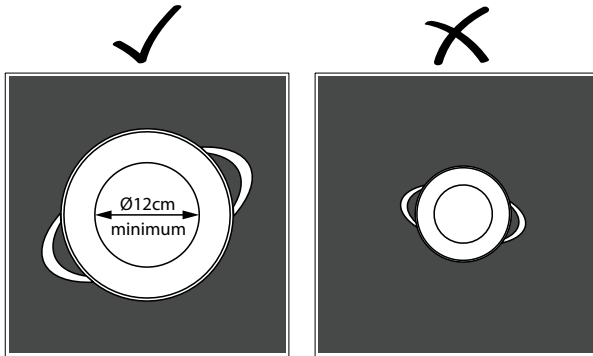
The exposed non-magnetic metal on the base may affect the induction field and subsequently, less energy may be supplied to the cookware.



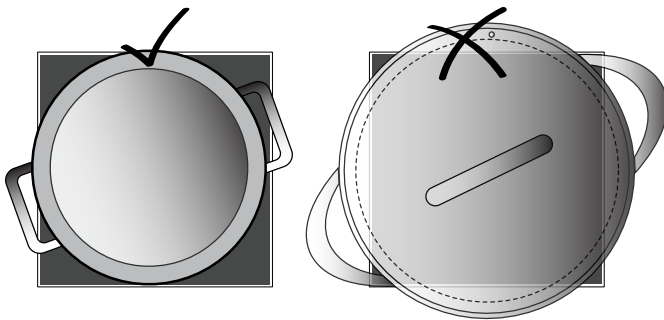


**SIZE OF PAN**

- **PAN MUST FIT THE GLASS!**
- **MINIMUM SIZE:** The bottom of pan must have a **minimum diameter of 12cm [5"]**. Otherwise, the pan will not be heated. This is a safety feature such that the sensors would not detect and heat up small metal objects, such as jewelry. NOTE: For personal safety, never place small metallic objects on a cook zone.



- **DO NOT USE OVERSIZED PAN!** The bottom of the pan must fit the glass. When a hot, oversized pan covers the silicone seal underneath, the heat from the pan may dry out the silicone overtime. When the silicone seal dries out and breaks, liquid can penetrate into the appliance and damage the electronics.

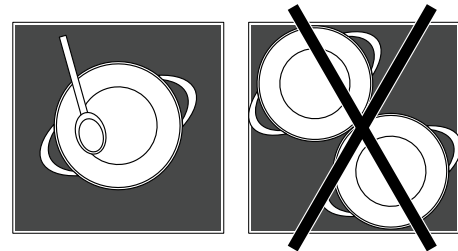


**Placing Pan On A Heat Plate**

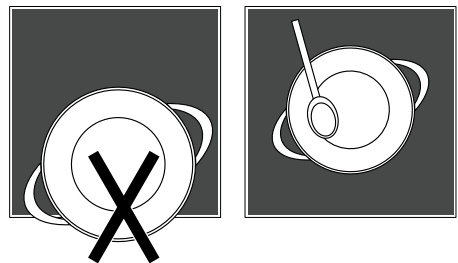
Each cook zone of our appliances is equipped with the latest RTCS® or RTCSmp® sensors. These sensors monitor temperature and cookware continuously in realtime.

To obtain optimal results from the sensors, you must **always place pan in the center of the cook zone**. Otherwise, the bottom of the pan is heated unequally and the food inside the pan may burn.

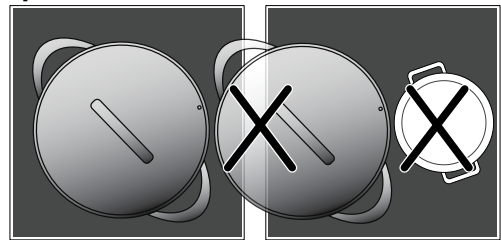
- **PLACE MAXIMUM ONE PAN PER HEAT PLATE.**



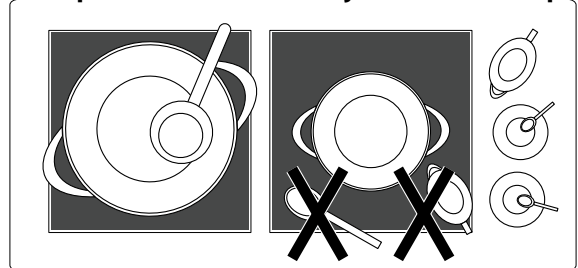
- **ALWAYS PLACE PAN IN THE CENTER OF A HEAT PLATE.** The pan should always remain in the center.



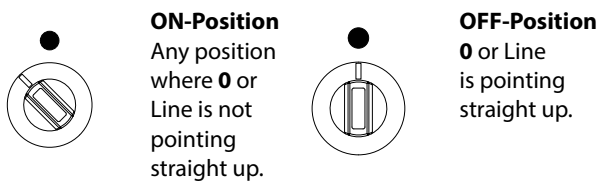
- **A single pan or pot must not cover more than one heat plate.**



- **Never place small metallic objects on the heat plate.**



### Temperature Control and Display



**ON-Position**  
Any position where **0** or Line is not pointing straight up.

**OFF-Position**  
**0** or Line is pointing straight up.

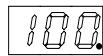
Turn the control knob to set the temperature and the appliance is immediately ready for operation.

You can adjust the temperature in an increment of 1°C [5°F], from 50 to 100°C [122 to 212°F].

#### DIGITAL DISPLAY

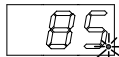
When you turn the knob, the digital display shows the selected temperature initially and then followed by the actual, real-time temperature within 2 seconds.

#### Temperature followed by a dot



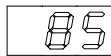
The digital display shows the temperature setting while you turn the knob. When you stop, the selected temperature is shown with a dot.

#### Temperature followed by a blinking dot



The blinking dot indicates the induction zone is active and the real-time temperature is displayed. Energy is being transferred to the pan.

#### Temperature shown without a dot



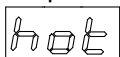
The display shows the real-time temperature and the induction zone is dormant. This means no energy is being transferred to the pan at the moment or the system cannot detect an induction pan.

#### Appliance with more than one heat retaining plate

To maximize efficiency with minimal resources, power cycles through the heat retaining plates at set intervals. This means when one plate is active and the temperature is shown with a blinking dot, the other plates lay dormant with temperatures shown without dots. This is normal. However, ensure you are using proper induction pans on the plates.

#### To shutdown the appliance,

Turn the control knob to the OFF-position. If the temperature is over 50°C [122°F], the display shows **hot**:



Otherwise, the display is off.

### Automatic Pan Detection, No Pan No Heat

When a temperature or power level is selected, the appliance supplies energy only when a pan is placed in the cook zone.

When you remove the pan from the cook zone, the appliance stops power supply immediately. Power supply to the pan resumes as soon as the pan is put back in the cook zone.

NOTE: Pan with a bottom diameter smaller than 12cm or 5" is not detected by the system.

#### When Appliance Is Idle

##### Best Practice:

When the induction appliance is not in use, always put the control knob in the 0 (OFF) position.

##### Notice

Switch the appliance OFF if you take the cookware away for a while. This will prevent the heating process to start automatically and unintentionally when a pan is placed back on the heating area. If any person needs to use the induction appliance, he/she will have to turn the appliance ON intentionally.

## Section 4 Maintenance

### MAINTENANCE SAFETY—DISCLAIMER

#### **⚠ DANGER**

It is the responsibility of the equipment owner to perform a Personal Protective Equipment Hazard Assessment to ensure adequate protection during maintenance procedures.

#### **⚠ Warning**

A good maintenance of the appliance requires regular cleaning, care and servicing. The site-supervisor and the operator must ensure all components relevant to safety are in perfect working order at all times.

NOTE: Cleaning tools and supplies are not provided.

### DANGEROUS ELECTRICAL VOLTAGE

#### **⚠ DANGER**

Do not open the appliance. Maintenance and servicing work other than cleaning as described in this manual must be done by an authorized service personnel.

#### **⚠ DANGER**

If any part of the appliance is cracked or broken, **Stop and Immediately Turn Off the appliance.** Only if it is possible and safe, disconnect the equipment from main power supply. Do not touch any parts inside the appliance.

Disconnect electric power at the main power disconnect for all equipment being serviced.

Failure to disconnect the power at the main power supply disconnect could result in serious injury or death. The power switch DOES NOT disconnect all incoming power.

Contact an authorized service agency for assistance.

### MAINTENANCE SAFETY—CLEANING

#### **⚠ Warning**

Never use a high-pressure water jet for cleaning or hose down or flood interior or exterior of the equipment with water. Ensure that no liquid can enter into the equipment.

#### **⚠ Warning**

Allow heated equipment / glass surface to cool down before attempting to clean, service or move.

#### **⚠ Warning**

When cleaning the exterior, care should be taken to avoid front power switch and the electrical cords. Keep water and cleaning solutions away from these parts.

#### **⚠ Caution**

Do not use caustic cleaners on any part of the equipment. Use mild, non abrasive soaps or detergents, applied with a sponge or soft cloth.

#### **⚠ Caution**

Ensure to remove all residues of cleaning agents from the cooking surfaces. Use a clean moist cloth to wipe off any such surfaces.

#### **⚠ Caution**

Using commercial cleaning fluids or chemicals: Read the directions for use and precautionary statements before use. Pay attention to the concentration of cleaner and the length of time the cleaner remains on the food-contact surfaces or equipment surfaces.

#### **Notice**

##### **Inspect and Clean Fresh Air Intake Filter**

We strongly recommend using air intake filters in all installations to protect the equipment from grease particles. A dirty, blocked air intake filter blocks the air vent and can cause damages to the electronic components. Inspect, clean or replace the air intake filters at least once a week or as often as necessary.

#### **⚠ Warning**

##### **Inspect Silicone Seal**

When the silicone seal is broken, water penetration could cause the appliance to fail, and any malfunction could cause personal harm.

**PERSONAL PROTECTION****⚠ DANGER**

All utilities (gas, electric, water and steam) must be OFF to all equipment and locked out of operation according to national/regional, as well as company approved practices during installation, maintenance and servicing. Always allow appliance to cool.

**⚠ DANGER**

Use appropriate safety equipment during installation, maintenance and servicing.

**⚠ DANGER**

Never stand, sit, or lean on the equipment! They are not designed to hold the weight of an adult, and may collapse or tip if misused in this manner.

**⚠ DANGER**

To avoid cardiac pacemaker malfunction, consult your physician or pacemaker manufacture about effects of electromagnetic field on your pacemaker.

**⚠ Warning**

Markings and warning labels mounted directly on the equipment must be observed at all times and kept in a fully legible condition.

**⚠ Warning**

Risk of burns from high temperatures. You may get burnt if you touch any of the parts during operation. Surfaces close to the cooking area including side panels may get hot enough to burn skin. Use extreme caution to avoid coming in contact with hot surfaces or hot grease. Wear personal protective equipment.

**⚠ Caution**

Use caution when handling metal surface edges of all equipment.

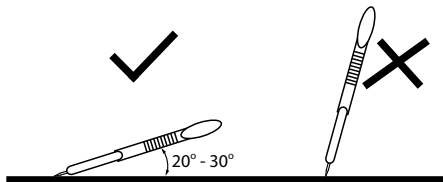
## Daily Cleaning and Maintenance

### GLASS CLEANING



NOTE: The cleaning of Ceran® glass is identical to cleaning other similar glass surfaces. You may use any regular glass cleaning products available from a hardware store.

You may use a razor blade scraper or a non-scratching sponge to remove tough residues. When scraping, place your razor blade scraper at an angle of about 20° to 30° from the glass. Then wipe clean the glass with a cleaning product.



### STAINLESS STEEL CASE

1. For any appliance with stainless steel case or rim, clean the stainless steel surface using a soft cloth with a mild detergent and/or a food-safe liquid cleaner designed to clean stainless steel.
2. Wipe dry with a soft clean cloth.

### VISUAL INSPECTION OF SILICONE SEAL

Inspect the silicone seal around the glass perimeter or the joint between the appliance and the counter surface. Call for service immediately if you notice:

- Cracks on the silicone seal.
- The silicone seal comes away from the glass/housing or moves when you press down on the seal.

## Weekly Cleaning and Maintenance

### AIR INTAKE FILTERS

#### Notice

#### Inspect and Clean Fresh Air Intake Filter

We strongly recommend using air intake filters in all installations to protect the equipment from grease particles. A dirty, blocked air intake filter blocks the air vent and can cause damages to the electronic components. Inspect, clean or replace the air intake filters at least once a week or as often as necessary.

### Yearly Maintenance

**Best Practice:** Have the induction appliance examined once a year by an authorized technician.

# Section 5

## Troubleshooting

### DANGEROUS ELECTRICAL VOLTAGE

#### DANGER

If any part of the appliance is cracked or broken, **Stop and Immediately Turn Off the appliance**. Only if it is possible and safe, disconnect the equipment from main power supply. Do not touch any parts inside the appliance.

Disconnect electric power at the main power disconnect for all equipment being serviced.

Failure to disconnect the power at the main power supply disconnect could result in serious injury or death. The power switch DOES NOT disconnect all incoming power.

Contact an authorized service agency for assistance.

#### DANGER

Do not open the appliance. Maintenance and servicing work other than cleaning as described in this manual must be done by an authorized service personnel.

#### Warning

Markings and warning labels mounted directly on the equipment must be observed at all times and kept in a fully legible condition.

NOTE: If a problem arises during operation of your induction appliance, follow the Troubleshooting Charts before calling service. Routine adjustments and maintenance procedures are not covered by the warranty.

### Common Problems

One or more of the following conditions may affect the function or cause the induction equipment to fail:

- Using unsuitable cookware such as non-induction pans, oversized pans, or damaged pans.
- High ambient temperature.
- Inadequate ventilation causing hot air to re-enter through the air intake slots.
- Dirty air intake filter.
- Empty pan is left on the hob when the appliance is ON.

### Symptoms

- When a malfunction occurs, the appliance may be in one of the following states:
  - The appliance switches off immediately.
  - The appliance continues to operate in a power reduction mode.
  - The appliance continues to operate normally.
- Appliance equipped with an indicator lamp or a digital display, see section *Troubleshooting Chart — Error Code / Flash Code*.
- Appliance without an indicator lamp / digital display, or the lamp is malfunction, see section *Troubleshooting Without Error Code / Flash Code*.

The cooling fan starts when the ambient temperature in the control area exceeds 140°F/60°C.

At heat sink temperature higher than 167°F/75°C, the controller automatically reduces power to keep the appliance in normal operating conditions. The full power of the appliance is at heat sink temperature of 158°F/70°C, running freely again

## Troubleshooting Without Error Code / Flash Code

Symptom	Possible Cause	Action
Pan does not heat up on glass-top. No heat to griddle or braising pan. Indicator lamp is OFF (dark). Digital display is OFF (dark).	No power supply.	Check incoming power supply (Example, power cable plugged into the wall socket). Check kitchen main fuse box.
	Control knob is in OFF-position.	Turn control knob to an ON-position.
	Defective equipment	Put knob in OFF-position. Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service agency.
Pan does not heat up and indicator lamp blinks continuously. If Indicator lamp blinks at intervals, see next section. (Not applicable to griddles or braising pans.)	Pan is too small.	Use a suitable pan with bottom diameter larger than 12cm[5"].
	Pan is not placed in the center of the hob; pan is not detected by sensor.	Move the pan to the center of the hob.
	Unsuitable pan.	Select only induction-ready cookware.
	Defective equipment	Put knob in OFF-position. Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service agency.
Poor heating, indicator lamp / digital display is ON	Air-cooling system is obstructed.	Verify that air vents are not obstructed. Ensure the fresh air filter is clean.
	Unsuitable pan. (Not applicable to griddles or braising pans.)	Select various induction-ready cookware for induction cooking. Then compare the results.
	Ambient temperature is too high. The cooling system is not able to keep the appliance in normal operating conditions.	Verify that no hot air is taken in by the fan. Reduce the ambient temperature. The intake air temperature must be lower than 40°C [104°F].
	One phase is missing (for equipment with three phase supply only).	Check incoming power supply (Example, power cable plugged into the wall socket). Check kitchen main fuse box.
	Defective equipment	Put knob in OFF-position. Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service agency.
Appliance does not react to control knob positions	Defective control switch.	Put knob in OFF-position. Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service agency.
Power/heating level seems to be reduced, fan is working	Air-cooling system is obstructed. Internal fan is dirty.	Verify that air vents are not obstructed. Ensure the fresh air filter is clean. Contact an authorized service agency.
Power/heating level seems to be reduced, fan does not work	Defective fan or fan control.	Put knob in OFF-position. Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service agency.
After a long period of continuous operation, the power/heating level seems to be reduced	Overheated induction coil; cooking area is too hot. Overheated pan. Pan is empty.	Switch the appliance off. Safely remove pan, if any. Wait until the appliance has cooled down before turning it ON again.
Small metallic objects (e.g. spoon) are heated up in the cook zone.	Pan detection function is defective.	Put knob in OFF-position. Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service agency.

## Troubleshooting — Error Code / Flash Code

- **Appliance equipped with an indicator lamp:**

The indicator lamp flashes to signal a specific problem. To find the possible cause, count the number of short flashes after each long flash.

Example: “— .... — ....” The lamp gives a long flash for 0.6 seconds. Then it gives 4 short flashes (indicated by the dots in the example). The sequence repeats until the error is canceled.

- **Appliance equipped with a digital display:**

The display may show an error code, example: E04.

Number of Flashes (Indicator Lamp)	Error Code (Display)	Problem	Action
.....		Normal Operation.	Normal Operation.
1 "— . — . — ."	E01	Unsuitable induction cooking pan. Internal wiring/coil connection malfunction. (1)	Check pan material. Contact an authorized service agency.
2 "— .. — .. — .."	E02	Unsuitable induction cooking pan. Coil/software overcurrent. (1)	Check pan material. Contact an authorized service agency.
3 "— ... — ... — ..."	E03	Air-cooling system obstructed. Fan malfunction. Internal heat sink overheated. (1)	Let appliance cool down. Verify that air vents are not obstructed. Check and clean air filter. Contact an authorized service agency.
4 "— .... — .... — ...."	E04 E17 E18 E27 E28 E41 E42 E43 E44 E45 E46	Overheated cook zone. Overheated pan detected. Sensor failure. Overheated or defective sensor. (1)  NOTE: Errors E41 to E46, griddles and braising pans may continue to operate.	Let appliance and/or pan cool down. Check pan material. Verify that air vents are not obstructed. Check and clean air filter. Contact an authorized service agency.
5 "— ..... — ..... — ....."	E05	Power switch/potentiometer error. (1)	Contact your authorized service agency.
6 "— ..... — ..... — ....."	E06 E30	Ambient temperature too high (the cooling system is not able to keep the induction appliance in normal operating conditions). Internal component overheated. (1)	Let appliance cool down. Verify that air vents are not obstructed. Check and clean air filter. Verified that no hot air is taken in by the fan. Reduce the ambient temperature. The intake air temperature must be lower than 40°C [104°F]. Contact an authorized service agency.
7 "— ..... — ..... — ....."	E29 E47	Generator component failure. Problem with control wiring. Warning from overheated pan / cooking empty sensor or coil connection failed. (1)  NOTE: E47 on griddles/braising pans indicates that griddle plate is too hot.	Let equipment/ pan cool down. Check food in the pan or empty pan. Contact an authorized service agency.
8 "— ..... — ..... — ....."	E21 E24 E25 E26	Sensor error from heat sink or CPU. Board overheated. Ambient temperature beyond normal operating range. (1)	Verify that air vents are not obstructed. Check air filter. Reduce ambient temperature. Contact an authorized service agency.
10 "— ..... — ..... — ....."	E10	Internal electronic failure. (1) or (2)	Contact an authorized service agency.
No flash code	E11	Multi-Line model only: 24V Voltage too low. (1).	Contact your authorized service agency to check power connection, 24V, power board and display.
No flash code	E12 E13	Power reduction. Warning of high heat sink temperature. Cook zone temperature too high. Sensor warning of high temperature. (2)	Let equipment/ pan cool down. Check pan material. Verify that air vents are not obstructed. Check and clean air filter. Verified that no hot air is taken in by the fan. Reduce ambient temperature. The intake air temperature must be lower than 40°C [104°F]. Contact an authorized service agency.
No flash code	E19 E20	Warning of high internal temperature. (2)	Let equipment/ pan cool down. Check pan material. Verify that air vents are not obstructed. Check and clean air filter. Verified that no hot air is taken in by the fan. Reduce ambient temperature. The intake air temperature must be lower than 40°C [104°F]. Contact an authorized service agency.
No flash code	E22	Griddle only. RTCS/CU sensor defect. (1)	Contact an authorized service agency.


(1) The appliance switches off immediately.

(2) The appliance continues to operate in a power reduction mode.

(3) The appliance continues to operate normally.



**Wearable Parts List**

Photo	Part Number	Description
	70000015	Silicone Seal PACTAN 7076, 310ml. For installation and water-tight seal.

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