

APPLIANCES 101:

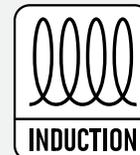
KNOW YOUR INDUCTION COOKTOPS

Induction cooking offers more **precision in control**. **Fun fact:** You can melt chocolate without a double boiler (& avoid burning the chocolate!)

Unlike traditional gas burners, **heat does not escape around the pot**, increasing energy efficiency and only heating things that need to be heated (no more burned potholders!)

There is minimal warmth after turning off the burner; the **insulating glass surface** remains cool to the touch.

Magnetizable cookware is required. The **'Induction Compatible'** symbol appears on the bottom of newer models.



The **electromagnetic copper coil** is supplied with a high frequency **alternating current (AC)**, which creates a rapidly changing magnetic field. The coil has **no effect** when there is no magnetizable cookware sitting on top of the glass surface.

The induction cookware picks up **electric currents** from the cooktop's magnetic field; the cookware heats up evenly.

Alternating magnetic field

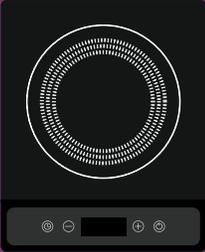
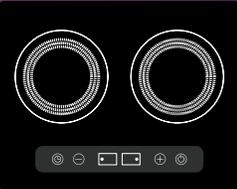
01 WHAT IS INDUCTION COOKING?

Unlike gas or electric cooktops, which rely on an open flame burner, induction cooktops only generate heat when **turned on** and there is **cookware in place**. Through a process of electrical induction, electromagnetic copper coils underneath the flat, ceramic glass surface **directly transfer energy** to the cookware, causing it to heat up and cook the food quickly. There is **very little residual heat** once the cooktop is turned off, making it a safer option than its gas or electric counterparts.

02 INDUCTION-READY COOKWARE

Induction-ready cookware contains ferromagnetic metal that allows for direct heat transfer. **Cast iron and select stainless steel models** are ideal (and widely available) while glass, ceramic, aluminum, and copper pots and pans do not work unless the base of the cookware is magnetic. Some stainless steel cookware is not compatible because it contains too much nickel, which blocks the electromagnetic field and prevents the food from heating up.

03 TYPES OF RESIDENTIAL COOKTOPS & RANGES

Type	Description	# of cooking zones	Power rating* <small>*May vary by model</small>	Considerations
 <p>Single Element</p>	<ul style="list-style-type: none"> + Inexpensive + Portable + Depending on cooking needs, other cooking appliances may be necessary + Can add additional units 	<ul style="list-style-type: none"> + Single burner—can only cook one dish at a time 	<ul style="list-style-type: none"> + 1800W, 120V 	<ul style="list-style-type: none"> + Relatively inexpensive
 <p>Multi-Element Induction Countertop</p>	<ul style="list-style-type: none"> + Typically replaces existing gas or electric cooktops + There are portable & drop-in options 	<ul style="list-style-type: none"> + Multiple cooking zones (2, 3, or 4+) - allows for simultaneous cooking of multiple dishes 	<ul style="list-style-type: none"> + 3600W, requires a 240V electrical connection 	<ul style="list-style-type: none"> + Costs may vary (comparable to equivalent gas / electric models) + Portable options are less manageable than a single burner cooktop + May need additional circuit if replacing a gas cooktop
 <p>Slide-In / Drop-In Range</p>	<ul style="list-style-type: none"> + Slide-in: Has a built-in bottom drawer below the oven for storing cookware + Drop-in: No storage drawer + Can be installed with an integrated cooktop & oven + Visually pleasing 	<ul style="list-style-type: none"> + Multiple cooking zones; cooktop dimensions may vary based on the number of cooking zones & the oven below 	<ul style="list-style-type: none"> + Requires a dedicated 220V electrical circuit, which is an added cost 	<ul style="list-style-type: none"> + Limited availability (generally in the mid-to upper-end models, not all finishes & features) + Small cost premium (compared to equivalent gas/electric models)
 <p>Freestanding Range</p>	<ul style="list-style-type: none"> + Can be placed between cabinets or be stand-alone + Can be used for outdoor cooking* <p><small>*Confirm if model is rated for outdoor installation</small></p>	<ul style="list-style-type: none"> + Multi-burner + Also includes single or multiple oven units below the induction cooktop 	<ul style="list-style-type: none"> + Requires a 240V electrical connection 	<ul style="list-style-type: none"> + Expensive compared to electric ranges + Not portable

04 COOKTOP FEATURES

-  Greater temperature control
-  Energy use can be offset with photovoltaic (PV) technology
-  Offers different cooking options
-  High total available wattage

Check out these resources to learn more:

- + Kitchen Electrification Group (tinyurl.com/y6q632dw)
- + East Bay Community Energy (tinyurl.com/y6r4ug32)

05 TO BUY OR NOT TO BUY?

Pros

- + Fast heating & cooking
- + Better **indoor air quality (IAQ)** since there are no combustion gases—safer for children
- + More **energy-efficient** than gas & electric options
- + Cool to the touch, easy to clean & precise control

Cons

- + Small cost premium (but **rebates** are available!)
- + Magnetizable cookware required
- + Initial learning curve
- + Low humming or crackling noises may occur when cooking