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IMV-4E INSTALLATION - OPERATION - MAINTENANCE





E538398

BLODGETT OVEN COMPANY

www.blodgett.com

42 Allen Martin Drive, Essex Junction, Vermont 05452 USA Telephone: (802) 658-6600 Fax: (802) 864-0183 PN 110548 Rev A (10/24)

Your Service Agency's Address:	Model
	Serial number
	Oven installed by
	Installation checked by

IMPORTANT

WARNING: Improper installation, adjustment, alternation, service or maintenance can cause property damage, injury or death. Read the instllation, operation and maintenance instructions thoroughly before installing or servicing this equipment.

INSTRUCTIONS TO BE FOL-LOWED IN THE EVENT THE USER SMELLS GAS MUST BE POSTED IN A PROMINENT LO-CATION. This information may be obtained by contacting your local gas supplier.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

The information contained in this manual is important for the proper installation, use, and maintenance of this oven. Adherence to these procedures and instructions will result in satisfactory baking results and long, trouble free service. Please read this manual carefully and retain it for future reference.

ERRORS: Descriptive, typographic or pictorial errors are subject to correction. Specifications are subject to change without notice.

Table of Contents

INSTALLATION

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Oven Description & Specifications	2
Utility Connections - Standards and Codes	4
Oven Location	5
Electrical Connections	6
OPERATION	
Safety Information	7
ImVection Touchscreen Control	8
MAINTENANCE	
Cleaning and Preventive Maintenance	34



Oven Description & Specifications

ABOUT THE IMVECTION

Blodgett ImVection ovens are quality produced using high-grade stainless steel with first class workmanship.

The multiple speed fan, which is guarded against accidental finger contact, is driven by a quiet and powerful motor.

The use of high quality insulation impedes excessive heat radiation and saves energy.

The ImVection has optional adjustable feet which adapt easily to slightly uneven surfaces and optional floor stands.

The practical oven doors, with viewing windows, have a wide swing radius and handle which can be operated easily, even with wet or greasy hands. Ease of operation is guaranteed through the simple arrangement of the controls. Graphic symbols make the appliance easy for even inexperienced kitchen staff to operate.

Cleaning is kept to a minimum. The interior is sprayed with a self-acting cleaning solution to easily remove crusts and stains



Oven Description & Specifications

RATINGS- IMV-4E								
VOLTAGE	HZ	KW	PHASE	MAX	LOAD (A	MPS)		
VOLIAGE	nz KW FnA	FHASE	L1	L2	L2			
208	60	17.6	3	45	45	45		
240	60	17.6	3	50	50	50		



Utility Connections - Standards and Codes

THE INSTALLATION INSTRUCTIONS CONTAINED HEREIN ARE FOR THE USE OF QUALIFIED INSTALLATION AND SERVICE PERSONNEL ONLY. INSTALLATION OR SERVICE BY OTHER THAN QUALIFIED PERSONNEL MAY RESULT IN DAMAGE TO THE OVEN AND/OR INJURY TO THE OPERATOR.

Qualified installation personnel are individuals, a firm, a corporation, or a company which either in person or through a representative are engaged in, and are responsible for:

- The installation or replacement of gas piping. The connection, installation, repair or servicing of equipment.
- The installation of electrical wiring from the electric meter, main control box or service outlet to the electric appliance.

Qualified installation personnel must be experienced in such work, be familiar with all precautions required and have complied with all requirements of state or local authorities having jurisdiction.

U.S. and Canadian Installations

Installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, NFPA54/ANSI Z223.1-Latest Edition, the Natural Gas Installation Code CAN/CGA-B149.1 or the Propane Installation Code, CAN/CGA-B149.2 as applicable.

Reference: National Electrical Code, ANSI/NFPA 70-Latest Edition and/or Canadian Electrical Code CSA C22.1 as applicable.

This equipment is to be installed in compliance with the Basic Plumbing Code of the Building Officials and Code Administrators International Inc. (BOCA) and the Food Service Sanitation Manual of the Food and Drug Administration (FDA).

General Export Installations

Installation must conform with Local and National installation standards. Local installation codes and/or requirements may vary. If you have any questions regarding the proper installation and/or operation of your appliance, please contact your local distributor. If you do not have a local distributor, please call Blodgett at 0011-802-658-6600.







Oven Location

OWNER'S RESPONSIBILITIES

Installation responsibilities prior to service startup inspection

You are entitled to a free start-up inspection service by our factory ASAP. Before a factory representative arrives to perform a startup procedure, the owner must already have satisfied the following requirements.

1. Oven(s) are uncrated and put in place.

OVEN LOCATION

The well planned and proper placement of your oven will result in long term operator convenience and satisfactory performance.

Certain minimum clearances must be maintained between the oven and any combustible or non-combustible construction. See the table below.

In addition, the following clearances are recommended for servicing.

- Oven body sides 12" (30cm)
- Oven body back 12" (30cm)

OVEN	MINIMUM REQUIRED CLEARANCES				
MODEL	Right Side	Left Side	Back		
IMV-4E	4"	4"	2"		
	(101.6mm)	(101.6mm)	(50.8mm)		

- Do not place strong sources of heat such as open flame ranges, griddles, or charbroilers near the oven.
- Note that if temperatures are too high, a safety shutdown may occur.
- Failure to comply may invalidate the oven warranty.



Attachment

LEG OPTIONS



Figure 1

STAND OPTION

1. Follow the instructions provided in the ImVection stand kit.

ATTACHMENT

- 1. Elevate the oven by lifting either the front or the back of the unit.
- 2. Align the threaded stud of the leg with the bolt hole on the bottom of the unit and turn the leg until fully installed.
- 3. Repeat for each leg.
- 4. Adjust the legs until the unit is level by extending the bottom portion of the leg.



Figure 2



Electrical Connections

ALL MODELS

NOTE: Electrical connections must be performed by a qualified installer only.

Before making any electrical connections to these appliances, check that the power supply is adequate for the voltage, amperage, and phase requirements stated on the rating name plate mounted on the appliance.

The circuit breaker that is used to provide power to this appliance must have a minimum of .076" (3mm) contact spacing. The circuit breaker must meet all Local and National installation standards.

All appliances must be installed in accordance with Local or National Electrical codes.

This appliance uses a variable frequency drive, which can be known to produce high frequency electrical noise. In some cases units must be hard wired. This avoids false positives on ground fault devices susceptible to errors from electrical noise. All installations must comply with local and national codes.

A wiring schematic is located on the inside of the removeable top panel.

NOTE: Disconnect the power supply to the appliance before servicing.



WARNING!!

Improper installation may invalidate your warranty.



✓ WARNING!!

If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.



The information contained in this section is provided for the use of qualified operating personnel. Qualified operating personnel are those who have carefully read the information contained in this manual, are familiar with the functions of the oven and/or have had previous experience with the operation of the equipment described. Adherence to the procedures recommended herein will assure the achievement of optimum performance and long, trouble-free service.

Please take the time to read the following safety and operating instructions. They are the key to the successful operation of your Blodgett oven.



SAFETY TIPS

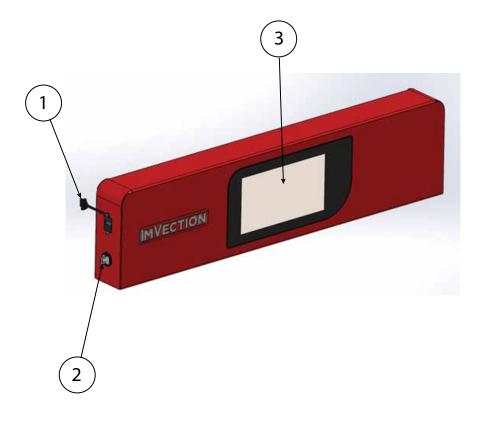
For your safety read before operating

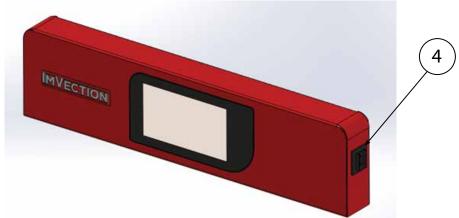
Safety Information

What to do in the event of a power failure:

- · Turn all switches to off.
- DO NOT attempt to operate the appliance until the power is restored.

NOTE: In the event of a shut-down of any kind, allow a five (5) minute shut off period before attempting to restart the oven.

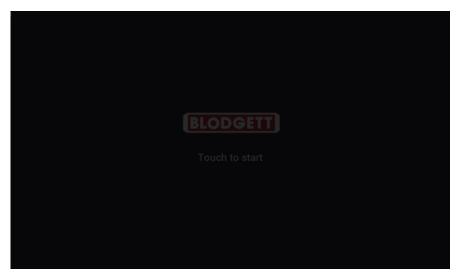




- 1. USB Port and Cover Use to transfer recipes and data to/from the control.
- 2. Core Probe Connection Cover Plug core temperature probe in here when using probe cooking.
- 3. Touchscreen Interactive display for oven operation and programming.
- 4. Circuit Breaker Provides circuit protection for the oven controls. DO NOT use as a power switch.



HOW TO USE THE CONTROL



If the oven is off, or if all chambers are idling, the screen will dim and present the Blodgett logo. Touch the screen to wake the control to the home screen.



The home screen is the recipe cooking mode. The top bar of the screen lists the currently available recipe groups. Each group has predefined chamber temperatures and a selection of recipes catered to cooking at the predefined temperatures. Select any of these listings at the top of the screen to change your current recipe group.



Notes:

- •It is possible to have more groups than can be simultaneously displayed in the top bar. This area can be scrolled left to right to view additional groups.
- •Groups cannot be changed while the unit is actively cooking product affiliated with the currently selected group.
- •Different groups may have different chamber temperatures. If chambers have been powered on under a specific group, they may require time to heat or cool to get to the new group's desired state.



The recipes of the currently selected group are listed down the left side of the display. If there are more recipes in a group than can be displayed in this field, the left section may be scrolled top to bottom to view additional recipes.



Once the desired group has been selected, press the power key on any chamber to begin heating that chamber to its predefined group setpoint. Any combination of available chambers may be powered on at any given time.





Once preheating is complete the unit will briefly stabilize the temperature before presenting the Ready status. Once a chamber is ready any recipe item with compatible settings will become illuminated allowing it to be selected for assignment to a chamber. Recipes which use the core probe cooking function will only illuminate when the chamber is prepared, and the probe has been plugged into the port on the left side of the control panel.



Once a recipe has been selected the applicable chamber light will begin to flash, indicating where to place the product. If the door is opened to this chamber the recipe item will automatically assign to that chamber and begin the timer once the door closes. A recipe may be assigned to a chamber after insertion by selecting the recipe then selecting the chamber position on the screen.

Note: If a recipe can be cooked in multiple chambers, it will always position itself to be on the topmost appliable chamber position.



Once a recipe has been initiated, it will automatically progress through the defined cook stages. The timer may be paused by selecting the || icon or opening the door of that chamber.

Note: chamber heating does not cease when the pause button is selected, only the timer is paused.

A recipe may be cancelled by selecting the X icon. Pressing the -1m key will subtract one minute from the current cook stage. Pressing the +1m key will add one minute to the current cook stage.



When a recipe has completed, an alarm will sound, the chamber light will begin flashing and the chamber position will show a green progress bar with a check mark. If the product needs additional time, the +1m key will still be available for selection. Selecting the chamber recipe or opening the chamber door will remove the recipe from the onscreen chamber position, freeing it for the next product assignment.

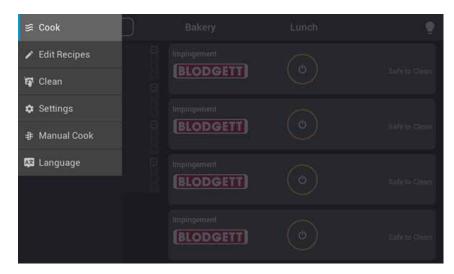




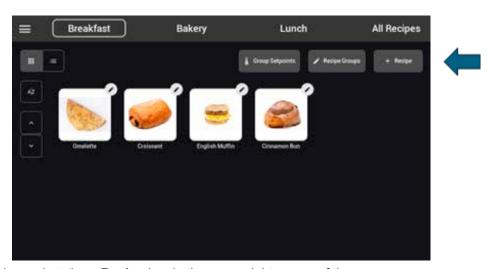


To turn off a chamber, ensure there is no active product in that chamber, and select the power key to the right side of the chamber field. The chamber will begin cooling and automatically shutdown once it has achieved a safe temperature.

CREATING & EDITING RECIPES



From the home screen select the menu icon from the top left corner of the screen. On the menu that appears select Edit Recipes. This will bring you to the recipe screen for the currently selected group.



To create a new recipe, select the **+ Recipe** key in the upper right corner of the screen.

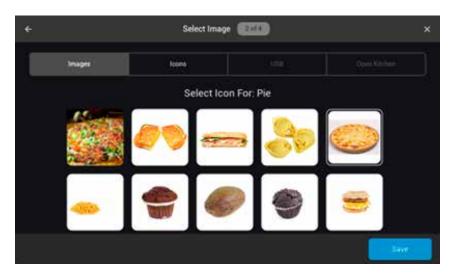




From the Add Recipe screen, select Create New.

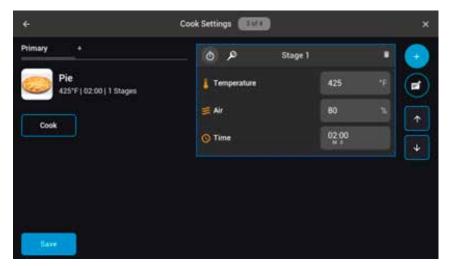


You'll be prompted to enter a name for your recipe. Select the right arrow key to save your recipe name and progress.

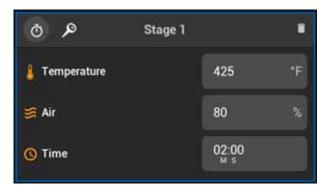


Next you will be prompted to select an image for your recipe. You can select which image library you wish from those illuminated at the top of the page (Images, Icons, USB photos, Open Kitchen) When the desired image has been selected, press save to progress to the Cook Settings page.

Note: Icons may also be assigned 1 of 12 color options

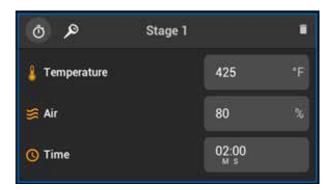


Initially you will be presented with one cooking stage. A recipe can be designed to be complete based on a timer, by achieving a specific internal core temperature measured with the unit's product probe, or a combination of the two. Selecting the **Stopwatch** or **Probe** icon at the top of the stage field will define if it is a timed or probe-based cook stage.



Selecting the **Temperature** field will define the recipe cook temperature. Any temperature below 400° will automatically set the unit to utilize Convection airflow, any temperature 400° or above will automatically set the unit to utilize Impingement airflow. Only the first stage of a recipe may have its temperature defined, all subsequent stages will maintain the stage one temperature.

Selecting the **Air** field will allow you to define the percentage of max fan speed for this stage of cooking.







If doing a timed stage, the **Time** field will allow you to define the duration in minutes and seconds. If doing a probe cooking stage, the **Probe Temperature** field will allow you to define the internal product temperature at which the stage will be considered done.



Additional stages may be added to the recipe by selecting the + key in the upper right corner of the screen.





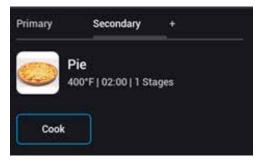
Comment stages can be added to the recipe by selecting the **+ Message** icon just below the **+ key**. Comment stages are customizable notes that can be placed in recipes, such as instructions to stir or add sauce.

If multiple stages are featured in a recipe, the currently selected stage will be outlined in blue. The position of the currently selected stage may be moved up or down in the stage progression by using the arrow keys at the right of the screen.

To delete a recipe stage, select the **Trash** icon in the top right of the stage window.

Note: Recipes must contain at least 1 stage. Each stage has a max duration of 59:59 (mm:ss)

Primary Secondary and Tertiary options



In the upper left corner of the cook settings screen, you'll note there is the word **Primary** with a +, selecting this + icon will add a Secondary recipe configuration and bring you to the settings window for that configuration. A secondary (or tertiary) configuration allows you to define an entirely different recipe setting profile for a product under the same name. This is to allow a singular product to be available in multiple chambers (set temperatures), groups, or cook modes, for options with regards to convenience, accessibility, and quality.

Ex. A pie might cook best (primary settings) at 400° for 10 minutes but can also be cooked at 350° for 13 minutes (secondary). This additional option would allow for it to be cooked in a chamber of either setpoint.

Test Cook



The **Cook** key on the left side of the Cook Settings screen will allow you to prepare a chamber for a test bake of the product currently being edited. Once the chamber has reached setpoint, you will be prompted to insert the product and start the test bake.

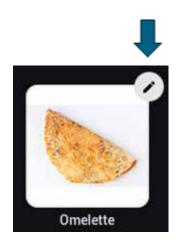
When all the desired cook settings have been defined, select **Save** in the lower left corner to proceed to the group selection menu.

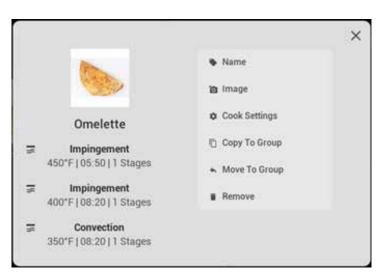




The group selection menu will display all groups that have chamber settings capable of cooking at least one of the recipe settings profiles defined in the previous screen. You can select any number of these groups to add your newly created recipe to or select skip to add the recipe to the All Recipes listing for later assignment to a group.

EDITING A RECIPE



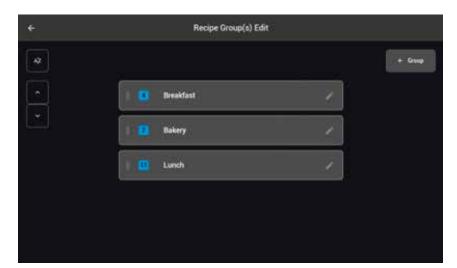


While viewing the recipe libraries in the edit recipes menu you may select the pencil icon in the top right of any of the recipe icons to edit that recipe. This will open a menu allowing you to revise the name, image, or settings of the recipe. See Recipe Creation for more details on any of these features. Additionally, you will have the option to copy or move the recipe amongst groups.

CREATING A RECIPE GROUP

All recipes must be assigned to a group to be cooked in the recipe cooking mode. Recipe groups define the temperature setpoints for each of the 4 chambers and allow assignment of recipes that share a temperature setting within the tolerance band of at least one chamber.

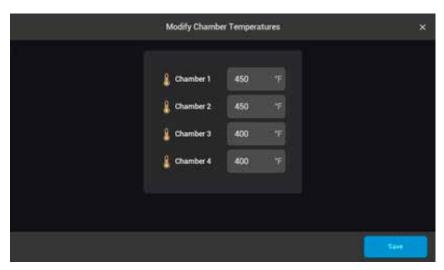




To create a recipe group, select the recipe groups key featuring a pencil in the upper right of the recipe editing menu. A listing of any current groups will be presented, select the + Group key in the upper right corner to create a new group.

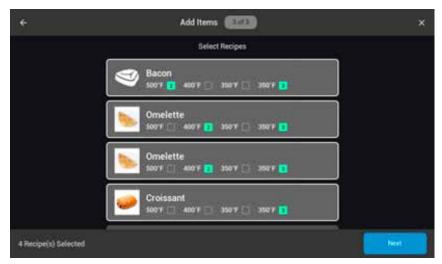


You will be prompted to enter the name of the group. The group name is the heading that will appear atop the recipe cook mode screen. When you've entered a name, select the **right arrow** key to save and proceed.



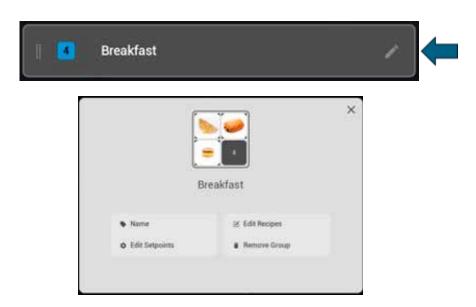
Next you will be asked to define the setpoint of each chamber. Each chamber may be set for to any temperature between $300^{\circ}F - 525^{\circ}F$. If each chamber is to be at a different temperature, it is suggested to have the hottest chamber at the top (chamber 1) and descend with the coolest on the bottom chamber (chamber 4). If a group is not initially setup in this manner, it will be automatically reordered when progressing to the next step. It is also recommended that no two adjacent chambers have a difference greater than $175^{\circ}F$ for optimal performance.

When all chambers' temperatures have been defined select **Save** from the lower right corner of the screen.



The last step of group creation is to select the recipes that will be included in the group. All recipes applicable to one or more of the chambers will be presented for selection. A green box with a number (1-3) will show up next to each relevant chamber temperature. The number denotes if that cavity is compatible with the primary, secondary, or tertiary recipe settings profile. When you've selected all the recipes that you would like to include in the new group select **Next** from the lower right corner or the screen. A summary of the group setup will be presented, select **Save** to finalize group creation. A group must contain at least one recipe to be saved.

CREATING A RECIPE GROUP



From the Edit Recipes menu select the recipe groups key featuring a pencil in the upper right of the screen. In the recipe Group(s) Edit Menu you will see a listing of all current groups. You may select the pencil icon to the right of any group title to edit that group (Name, Setpoints, Recipes, or Removal). You may also reorder the groups using a drag and drop (drag from the right side of the group bar) or the arrow keys at the left of the screen. There is also the option to sort groups alphabetically. The ordering of the groups (top to bottom) is how they will be displayed left to right in the cooking menu.

MANUAL COOKING



To cook without a recipe or group, select the menu icon from the top left corner of the screen. On the menu that appears select **Manual Cook.**





In the manual cooking mode, you can define temperature and fan settings for each chamber. Once heated, a timer or core probe temperature target can be defined.





To establish the settings for a chamber, select the **Setpoint** field. The temperature can be set between 300°F (149°C) and 525°F (273°C). Chambers 400°F (205°C) and above will utilize impingement technology, whereas those below will use convection airflow. Selecting the **right arrow** will save the setting and transition you to defining the **Air** percentage (fan speed).



When finished setting up the temperature and fan speed for the chamber(s), press the power key(s) to begin the preheating.



When the chamber(s) have preheated and stablized, you may select the **timer field** to input a time. To use core probe cooking, insert the core probe and select the **probe icon** to the right of the start key. This will transition the timer field to a tempeature. Select the field to input a desired temperature target.



Insert the product in the chosen chamber and select start on the corresponding chamber to commence the cook.

When the countdown is complete or internal temperature is achieved, an alarm will sound, the chamber light will begin flashing and the chamber position will show a green progress bar with a check mark. Selecting the chamber or opening the chamber door will clear the chamber field, freeing it for the next cook.

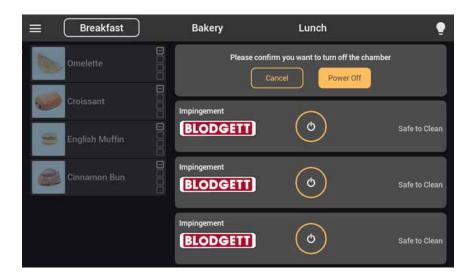
To turn off a chamber, ensure there is no active product in that chamber, and select the **power key** to the right side of the chamber field. The chamber will begin cooling and automatically shut down once it has achieved a safe temperature.



COOLING DOWN

At any time in Recipe Mode or Manual Mode, you may press the Power icon to the right side of the cooking chamber's area on the screen. This forces the oven into a Cool Down mode.

It is VERY important to properly cool the oven down each day to ensure the longevity of the oven and its electrical components. Failure to do so may result in a decreased lifetime of the oven and its components.

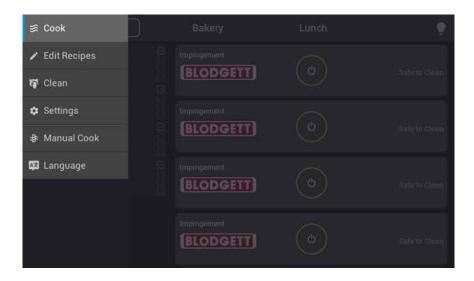




The oven will Cool Down to an ambient temperature and automatically turn off all items. It will finish in a state showing the touchscreen in the "Sleep" state as shown below.

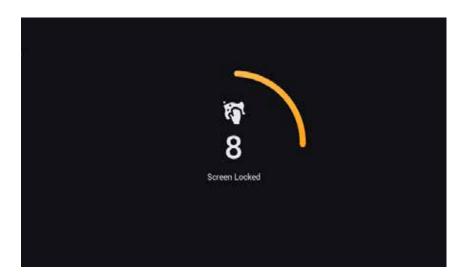


- 1. To clean the touchscreen, tap on the hamburger icon in the upper left corner of the screen (the 3 lines).
- 2. Select "Clean"





3. This allows you to wipe the control screen without causing inadvertent inputs. A 10 second countdown will appear on the screen.



USB FUNCTIONS

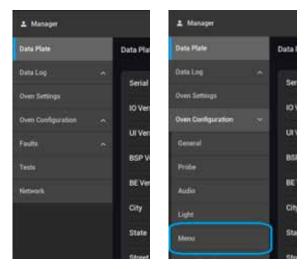
Saving Recipies



To save the current recipes and groups featured on the control select the menu icon from the top left corner of the screen. On the menu that appears select **Settings**.

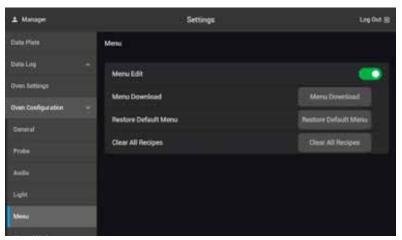


This will prompt you for a passcode. Enter passcode **6647 (MNGR)** to enter the Manager level settings.

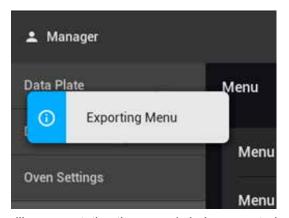


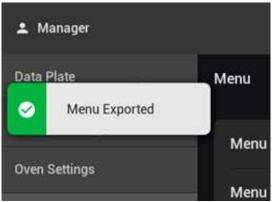
From Manager Settings select Oven Configuration from the left side of the screen, this will list additional menu options, select **Menu**.





Insert a USB drive into the port at the left side of the control panel, Select **Menu Download** to save the current recipe and group settings to the drive.

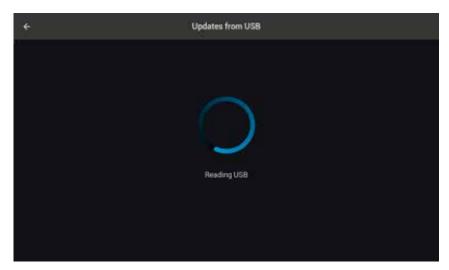




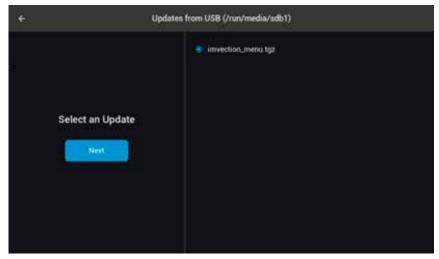
A notice will appear stating the menu is being exported, and another when the menu has successfully finished exporting.

Loading Menus

It is recommended that the unit have all chambers off when attempting to upload a menu file. The control will reboot during the process and any bakes will be canceled. With the saved menu file on the root of a USB drive (default: imvection_menu.tgz), insert the USB drive into the port at the left side of the control panel.

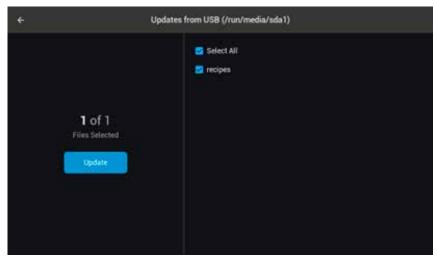


A screen with a progress wheel will appear as the control scans the drive.



When the scan is complete a listing of any available files will be presented for selection. Select the desired menu file, then press **Next.**





An additional selection screen will appear displaying the file contents. Check Select All and press **Next.**





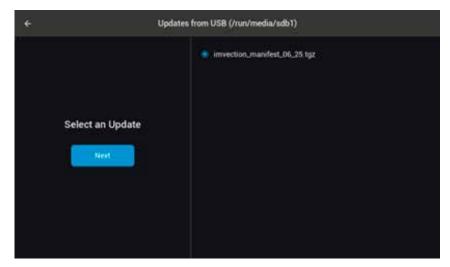
The control will begin the update process, then reboot. Upon reboot the control will state that the update has been completed and the new menu will be avliable.

Software Updates (USB)

It is recommended that the unit have all chambers off when attempting to update. The control will reboot during the process and any bakes will be canceled. To apply a software update to the controler insert the USB drive with the update file into the port at the left side of the control panel.



A screen with a progress wheel will appear as the control scans the drive.



When the scan is completed, a window will display the avliable files. Select the manifest file and press **Next.**





An additional selection screen will appear displaying the file contents. Check Select All and press **Next.**





Cleaning and Preventive Maintenance



WARNING:

Wear proper PPE and adhere to the MSDS instructions of the oven cleaner.



WARNING:

The oven operates at very high temperatures and retains heat for some time even after cooling. Take caution that the oven has properly cooled.



WARNING:

Failure to follow these instructions may harm the catalytic converter and void your warranty. Do NOT spray any cleaning agents or water into the small holes that house the catalytic converter. See images below in procedure.

1. Ensure the oven has cooled prior to cleaning. If either the Blodgett "Start Screen" or the screen stating "Safe to Clean" is present, the oven has cooled enough to clean. See images below.





2. Remove the wire cooking rack from each oven chamber. Remove the jet plate assemblies from each chamber. There is one in the Top and one in the Bottom of each cooking chamber.





3. The cooking racks and jet plate assemblies may be cleaned in a Dish Machine or Soaker.





NOTE: If the Dish Machine or Soaker does not remove all grease of the jet plate assemblies, it is possible to take the jet plate assemblies apart. Take care of disassembling and reassemble properly.



CAUTION:

Do NOT spray oven cleaner into the holes on the left side and rear of the chamber. Do not spray directly onto the light. Doing so can damage critical oven components, resulting in a non-warranty service call.





Cleaning and Preventive Maintenance

4. Spray oven cleaner onto the top, bottom, and right side of the chamber. Clean with a non-abrasive scrub pad. Apply oven cleaner to a clean towel and wipe the left and rear sides of the chamber. For stubborn stains, spray Oven Cleaner and allow to soak for 5 minutes. Wipe oven cleaner from surfaces with a damp towel, then a dry towel.







5. Wipe the Door Gaskets and Clean the Doors.







- 6. Reinstall the jet plate assemblies and wire cooking racks.
- 7. Clean the Oven Exterior. Wipe the oven exterior with a clean, damp towel, then a dry towel. Do **NOT** spray water or chemicals into the cooling fans on the rear of the oven.