Installation Instructions

Over the Range Microwave Oven

BEFORE YOU BEGIN

Read these instructions completely and carefully.

- **IMPORTANT** Save these instructions for local inspector's use.
- **IMPORTANT** Observe all governing codes and ordinances.
- Note to Installer Be sure to leave these instructions with the Consumer.
- Note to Consumer Keep these instructions for future reference.
- **Skill level** Installation of this appliance requires basic mechanical and electrical skills.
- Proper installation is the responsibility of the installer.
- Product failure due to improper installation is not covered under the Warranty.



READ CAREFULLY. KEEP THESE INSTRUCTIONS.

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IMPORTANT SAFETY INSTRUCTIONS

This product requires a three-prong grounded outlet. The installer must perform a ground continuity check on the power outlet box before beginning the installation to insure that the outlet box is properly grounded. If not properly grounded, or if the outlet box does not meet electrical requirements noted (under ELECTRICAL REQUIREMENTS), a qualified electrician should be employed to correct any deficiencies.



CAUTION: For personal safety, remove house fuse or open circuit breaker before beginning installation to avoid severe or fatal shock injury.

CAUTION: For personal safety, the mounting surface must be capable of supporting the cabinet load, in addition to the added weight of this 59 pound product, plus additional oven loads of up to 50 pounds or a total weight of 109 pounds.

CAUTION: For personal safety, this product cannot be installed in cabinet arrangements such as an island or a peninsula. It must be mounted to BOTH a top cabinet AND a wall.

NOTE: For easier installation and personal safety, it is recommended that two people install this product.

IMPORTANT-PLEASE READ CAREFULLY. FOR PERSONAL SAFETY, THIS APPLIANCE MUST BE PROPERLY GROUNDED TO AVOID SEVERE OR FATAL SHOCK.



The power cord of this appliance is equipped with a three-prong (grounding) plug which mates with a standard three-prong (grounding) wall receptacle to minimize the possibility of electric shock hazard from this appliance. You should have the wall receptacle and circuit checked by a qualified electrician to make sure the receptacle is properly grounded.

Where a standard two-prong wall receptacle is encountered, it is very important to have it replaced with a properly grounded three-prong wall receptacle, installed by a qualified electrician.

DO NOT, UNDER ANY CIRCUMSTANCES, CUT, DEFORM OR REMOVE ANY OF THE PRONGS FROM THE POWER CORD. DO NOT USE WITH AN EXTENSION CORD.

ELECTRICAL REQUIREMENTS

Product rating is 120 volts AC, 60 Hertz, 14.5 amps (13 amps, CANADA) and 1.65 kilowatts (1.5 kilowatts, CANADA). This product must be connected to a supply circuit of the proper voltage and frequency. Wire size must conform to the requirements of the National Electrical Code or the prevailing local code for this kilowatt rating. The power supply cord and plug should be brought to a separate 20 ampere branch circuit single grounded outlet. The outlet box should be located in the cabinet above the microwave oven. The outlet box and supply circuit should be installed by a qualified electrician and conform to the National Electrical Code or the prevailing local code.

HOOD EXHAUST

NOTE: Read these next two pages only if you plan to vent your exhaust to the outside. If you plan to recirculate the air back into the room, proceed to page 11.

OUTSIDE TOP EXHAUST (EXAMPLE ONLY)

The following chart describes an example of one possible ductwork installation.

	DUCT PIECES	6	EQUIVALENT LENGTH	x	NUMBER USED	=	EQUIVALENT LENGTH
		Roof Cap	24 Ft.	х	(1)	=	24 Ft.
		12 Ft. Straight Duct (6" Round)	12 Ft.	x	(1)	=	12 Ft.
		Rectangular-to-Round Transition Adaptor*	5 Ft.	х	(1)	=	5 Ft.
	Equivalent lengths of duct pieces are based on actual tests and reflect requirements for good venting performance with any vent hood.		То	tal Length		41 Ft.	

* **IMPORTANT:** If a rectangular-to-round transition adaptor is used, the bottom corners of the damper will have to be cut to fit, using the tin snips, in order to allow free movement of the damper.

OUTSIDE BACK EXHAUST (EXAMPLE ONLY)

The following chart describes an example of one possible ductwork installation.

	DUCT PIECES	3	EQUIVALENT LENGTH*	x	NUMBER USED	=	EQUIVALENT LENGTH
		Roof Cap	40 Ft.	х	(1)	=	40 Ft.
J		3 Ft. Straight Duct (3¼" x 10" Rectangular)	3 Ft.	x	(1)	=	3 Ft.
		90° Elbow	10 Ft.	x	(2)	=	20 Ft.
	Equivalent lengths of duct pieces are based on actual tests and reflect requirements for good venting performance with any vent hood. Total Length =				63 Ft.		

NOTE: For back exhaust, care should be taken to align exhaust with space between studs, or wall should be prepared at the time it is constructed by leaving enough space between the wall studs to accommodate exhaust.

NOTE: If you need to install ducts, note that the total duct length of $3\frac{1}{4}$ " x 10" rectangular or 6" diameter round duct should not exceed 60 equivalent feet.

Outside ventilation requires a HOOD EXHAUST DUCT. Read the following carefully.

NOTE: It is important that venting be installed using the most direct route and with as few elbows as possible. This ensures clear venting of exhaust and helps prevent blockages. **Also, make sure dampers swing freely and nothing is blocking the ducts.**

Exhaust connection:

The hood exhaust has been designed to mate with a standard 31/4" x 10" rectangular duct.

If a round duct is required, a rectangular-to-round transition adaptor must be used. **Do not use less than a 6" diameter duct.**

Maximum duct length:

For satisfactory air movement, the total duct length of 3¹/₄" x 10" rectangular or 6" diameter round duct should not exceed 60 equivalent feet.

Elbows, transitions, wall and roof

Caps, etc., present additional resistance to airflow and are equivalent to a section of straight duct which is longer than their actual physical size. When calculating the total duct length, add the equivalent lengths of all transitions and adaptors plus the length of all straight duct sections. The chart below shows you how to calculate total equivalent ductwork length using the approximate feet of equivalent length of some typical ducts.

DUCT PIECES		EQUIVALENT LENGTH	x	NUMBER USED		EQUIVALENT LENGTH
	Rectangular-to-Round Transition Adaptor*	5 Ft.	х	()	=	Ft.
	Wall Cap	40 Ft.	x	()	=	Ft.
	90° Elbow	10 Ft.	x	()	=	Ft.
Ø	45° Elbow	5 Ft.	x	()	=	Ft.
	90° Elbow	25 Ft.	х	()	-	Ft.
	45° Elbow	5 Ft.	х	()	-	Ft.
	Roof Cap	24 Ft.	х	()	=	Ft.
	Straight Duct 6" Round or 3¼" x 10" Rectangular	1 Ft.	х	()	=	Ft.
Total Ductwork					_	Ft.



* **IMPORTANT:** If a rectangular-toround transition adaptor is used, the bottom corners of the damper will have to be cut to fit, using the tin snips, in order to allow free movement of the damper. Equivalent lengths of duct pieces are based on actual tests and reflect requirements for good venting performance with any vent hood.

DAMAGE – SHIPMENT/ INSTALLATION

- If the unit is damaged in shipment, return the unit to the store in which it was bought for repair or replacement.
- If the unit is damaged by the customer, repair or replacement is the responsibility of the customer.
- If the unit is damaged by the installer (if other than the customer), repair or replacement must be made by arrangement between customer and installer.

PARTS INCLUDED

HARDWARE PACKET

PART		QUANTITY
Eminimum	Wood Screws (¼" x 2")	1
0	Toggle Bolts (and wing nuts) (³ /16" x 3")	2
Hamman and	Self-aligning Machine Screws (¼"-28 x 3¼")	2
and the second	Nylon Grommet (for metal cabinets)	2

You will find the installation hardware contained in a packet with the unit. Check to make sure you have all these parts.

NOTE: Some extra parts are included.

ADDITIONAL PARTS

PART		QUANTITY
TOP CABINET TEMPLATE	Top Cabinet Template	1
REAR WALL TEMPLATE	Rear Wall Template	1
Installation Instructions	Installation Instructions	1
	Separately Packed Grease Filter	1
	Exhaust adaptor	1
	•	•





1.PLACEMENT OF THE MOUNTING PLATE

- <u>A.</u> REMOVING THE MICROWAVE OVEN FROM THE CARTON/ REMOVING THE MOUNTING PLATE
- **1.** Remove the installation instructions, Exhaust adaptor, filters, glass tray and the small hardware bag. Do not remove the Styrofoam protecting the front of the oven.
- 2. Fold back all 4 carton flaps fully against carton sides. Then carefully roll the oven and carton over onto the top side. The oven should be resting in the Styrofoam.



- **3.** Pull the carton up and off the oven.
- 4. Remove and properly discard plastic bags.



5. Remove the 2 screws from the mounting plate. This plate will be used as the rear wall template and for mounting.

NOTE: You will have to reuse two screws in original location of outcase after removing mounting plate.



- **1.** Find the studs, using one of the following methods:
 - A. Stud finder-a magnetic device which locates nails.

OR

- **B.** Use a hammer to tap lightly across the mounting surface to find a solid sound. This will indicate a stud location.
- 2. After locating the stud(s), find the center by probing the wall with a small nail to find the edges of the stud. Then place a mark halfway between the edges. The center of any adjacent studs should be 16" or 24" from this mark.
- **3.** Draw a line down the center of the studs.

THE MICROWAVE MUST BE CONNECTED TO AT LEAST ONE WALL STUD.

<u>C.</u> DETERMINING WALL PLATE LOCATION UNDER YOUR CABINET



Plate position – beneath framed recessed cabinet bottom

Your cabinets may have decorative trim that interferes with the microwave installation. Remove the decorative trim to install the microwave properly and to make it level.

THE MICROWAVE MUST BE LEVEL.

Use a level to make sure the cabinet bottom is level.

If the cabinets have a front overhang only, with no back or side frame, install the mounting plate down the same distance as the front overhang depth. This will keep the microwave level.

- **1.** Measure the inside depth of the front overhang.
- **2.** Draw a horizontal line on the back wall an equal distance below the cabinet bottom as the inside depth of the front overhang.
- **3.** For this type of installation with front overhang only, align the mounting tabs with this horizontal line, not touching the cabinet bottom as described in Step D.

installation instructions



2. INSTALLATION TYPES (Choose A, B or C)

This microwave oven is designed for adaptation to the following three types of ventilation:

- A. Recirculating (Non-Vented Ductless)
- B. Outside Top Exhaust (Vertical Duct)
- C. Outside Back Exhaust (Horizontal Duct)

NOTE: This microwave is shipped assembled for "Recirculating". And exhaust adaptor is shipped after being assembled to the filler-upper. Select the type of ventilation required for your installation and proceed to that section.

<u>A.</u> RECIRCULATING (NON-VENTED DUCTLESS)



A Charcoal Filter Accessory Kit is required for the nonvented exhaust. (See your Owner's Manual for the kit number.)

B. OUTSIDE TOP EXHAUST (VERTICAL DUCT)



<u>C.</u> OUTSIDE BACK EXHAUST (HORIZONTAL DUCT)



A. RECIRCULATING (Non-Vented Ductless)



A1. ATTACH THE MOUNTING PLATE TO THE WALL



Attach the plate to the wall using toggle bolts. At least one wood screw must be used to attach the plate to a wall stud.

- **1.** Remove the toggle wings from the bolts.
- Insert the bolts into the mounting plate through the holes designated to go into drywall and reattach the toggle wings to ³/₄ " onto each bolt.

To use toggle bolts:



3. Place the mounting plate against the wall and insert the toggle wings into the holes on the wall to mount the plate.

NOTE: Before tightening toggle bolts and wood screw, make sure to coincide bottom line of the Mounting plate with Horizontal line of "Rear wall Template" and then the Mounting plate is properly centered under the cabinet.

CAUTION: Be careful to avoid pinching fingers between the back of the mounting plate and the wall.

4. Tighten all bolts. Pull the plate away from the wall to help tighten the bolts.

A2. USE TOP CABINET TEMPLATE FOR PREPARATION OF TOP CABINET

You need to drill holes for the top support screws and a hole large enough for the power cord to fit through.



- Read the instructions on the TOP CABINET TEMPLATE.
- Tape it underneath the top cabinet.
- Drill the holes, following the instructions on the TOP CABINET TEMPLATE.

CAUTION: Wear safety goggles when drilling holes in the cabinet bottom.

Installation instructions

A3. MOUNT THE MICROWAVE OVEN



FOR EASIER INSTALLATION AND PERSONAL SAFETY, WE RECOMMEND THAT **TWO PEOPLE** INSTALL THIS MICROWAVE OVEN.

IMPORTANT: Do not grip or use handle during installation.

NOTE: If your cabinet is metal, use the nylon grommet around the power cord hole to prevent cutting of the cord.

NOTE: We recommend using filler blocks if the cabinet front hangs below the cabinet bottom shelf.

IMPORTANT: If filler blocks are not used, case damage may occur from over tightening screws.

NOTE: When mounting the microwave oven, thread power cord through hole in bottom of top cabinet. Keep it tight throughout Steps 1–3. Do not pinch cord or lift oven by pulling cord.



3. Insert a self-aligning screw through top left cabinet hole. Temporarily secure the oven by turning the screw at least two full turns after the threads have engaged. (It will be completely tightened later.) Be sure to keep power cord tight. Be careful not to pinch the cord, especially when mounting flush to bottom of cabinet.



- **4.** Attach the microwave oven to the top cabinet.
- **5.** Insert 1 self-aligning screw through top right cabinet holes. Turn two full turns on right screw.



6. Tighten the outer two screws to the top of the microwave oven. (While tightening screws, hold the microwave oven in place against the wall and the top cabinet.)



7. Install grease filter. See the Owner's Manual packed with the microwave.

B. OUTSIDE TOP EXHAUST (Vertical Duct)





Attach the plate to the wall using toggle bolts. At least one wood screw must be used to attach the plate to a wall stud.

- **1.** Remove the toggle wings from the bolts.
- 2. Insert the bolts into the mounting plate through the holes designated to go into drywall and reattach the toggle wings to ³/₄" onto each bolt.



3. Place the mounting plate against the wall and insert the toggle wings into the holes in the wall to mount the plate.

NOTE: Before tightening toggle bolts and wood screw, make sure to coincide bottom line of the Mounting plate with Horizontal line of "Rear wall Template" and then the Mounting plate is properly centered under the cabinet.

CAUTION: Be careful to avoid pinching fingers between the back of the mounting plate and the wall.

4. Tighten all bolts. Pull the plate away from the wall to help tighten the bolts.

B2. USE TOP CABINET TEMPLATE FOR PREPARATION OF TOP CABINET

You need to drill holes for the top support screws, a hole large enough for the power cord to fit through, and a cutout large enough for the exhaust adaptor.



- Read the instructions on the TOP CABINET TEMPLATE.
- Tape it underneath the top cabinet.
- Drill the holes, following the instructions on the TOP CABINET TEMPLATE.

CAUTION: Wear safety goggles when drilling holes in the cabinet bottom.

B3. ADAPTING MICROWAVE BLOWER FOR OUTSIDE TOP EXHAUST

1. Remove the back top center blower motor door retaining screw.



2. Open the blower motor door by lifting it up at the back side of the microwave. Remove and save the top and back retaining screws that hold the blower motor in the microwave.



 Carefully slide the blower motor toward the right, and lift it partially out of the opening.
 Note: The blower wires are long enough to allow flexible handling while performing these steps.

Disconnect the wires if necessary for additional flexibility.



4. Remove the two screws holding the left side inlet sleeve to the blower unit. Snap the inlet sleeve off of the blower.



5. Roll the blower unit so that the right exhaust outlet faces the top. Snap the inlet sleeve back onto the left side with the opening facing down.
Note: The left side sleeve opening must always face downward. Reinstall the 2 screws holding the inlet sleeve to the motor assembly.



6. Tilt and place the blower unit back into the opening in the top of the microwave.



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7. Secure the blower unit to the microwave with the two screws removed in Step 2.



- **8.** Close the blower cover and secure it with the screw removed in Step 1.
- **9.** Attach the exhaust adaptor to the rear of the microwave by sliding it into the guides at the top center of the back of the oven.

Back of Microwave

B4. CHECK FOR PROPER DAMPER OPERATION



- Place the microwave in its upright position, with the top of the unit facing up.
- This microwave oven may be shipped assembled for top exhaust (adaptor installed) or for recirculation exhaust (adaptor absent).
- Make sure tape securing damper is removed and damper pivots easily before mounting microwave.
- You will need to make adjustments to assure proper alignment with your house exhaust duct after the microwave is installed.

B5. MOUNT THE MICROWAVE OVEN



FOR EASIER INSTALLATION AND PERSONAL SAFETY, WE RECOMMEND THAT TWO PEOPLE INSTALL THIS MICROWAVE OVEN.

IMPORTANT: Do not grip or use handle during installation.

NOTE: If your cabinet is metal, use the nylon grommet around the power cord hole to prevent cutting of the cord.

NOTE: We recommend using filler blocks if the cabinet front hangs below the cabinet bottom shelf.

IMPORTANT: If filler blocks are not used, case damage may occur from over tightening screws.

NOTE: When mounting the microwave oven, thread power cord through hole in bottom of top cabinet. Keep it tight throughout Steps 1–3. Do not pinch cord or lift oven by pulling cord.



3. Insert a self-aligning screw through top left cabinet hole. Temporarily secure the oven by turning the screw at least two full turns after the threads have engaged. (It will be completely tightened later.) Be sure to keep power cord tight. Be careful not to pinch the cord, especially when mounting flush to bottom of cabinet.



B6. ADJUST THE EXHAUST ADAPTOR

Open the top cabinet and adjust the exhaust adaptor to connect to the house duct.





- **1.** Extend the house duct down to connect to the exhaust adaptor.
- **2.** Seal exhaust duct joints using duct tape.

<u>C.</u> OUTSIDE BACK EXHAUST (Horizontal Duct)



REAR WALL TEMPLATE.



3. Place the mounting plate against the wall and insert the toggle wings into the holes on the wall to mount the plate.

NOTE: Before tightening toggle bolts and wood screw, make sure to coincide bottom line of the Mounting plate with Horizontal line of "Rear wall Template" and then the Mounting plate is properly centered under the cabinet.

CAUTION: Be careful to avoid pinching fingers between the back of the mounting plate and the wall.

4. Tighten all bolts. Pull the plate away from the wall to help tighten the bolts.

<u>C3.</u> USE TOP CABINET TEMPLATE FOR PREPARATION OF TOP CABINET

You need to drill holes for the top support screws and a hole large enough for the power cord to fit through.



- Read the instructions on the TOP CABINET TEMPLATE.
- Tape it underneath the top cabinet.
- Drill the holes, following the instructions on the TOP CABINET TEMPLATE.

CAUTION: Wear safety goggles when drilling holes in the cabinet bottom.

<u>C4.</u> ADAPTING MICROWAVE BLOWER FOR OUTSIDE BACK EXHAUST

1. Remove the back top center blower motor door retaining screw.



2. Open the blower motor by lifting it up at the back side of the microwave. Remove and save the top and back retaining screws that hold the blower motor in the microwave.



3. Carefully slide the blower motor toward the right, and lift it partially out of the opening. **Note:** The blower wires are long enough to allow flexible handling while performing these steps. Disconnect the wires if necessary for additional flexibility.



4. Remove the two screws holding the left side inlet sleeve to the blower unit. Snap the inlet sleeve off of the blower.



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5. Roll the blower unit so that the right exhaust outlet faces the rear. Snap the inlet sleeve back onto the left side with the opening facing down.
Note: The left side sleeve opening must always face downward. Reinstall the 2 screws holding the inlet sleeve to the motor assembly.



6. Tilt and place the blower unit back into the opening in the top of the microwave.



7. Secure the blower unit to the microwave with the two screws removed in Step 2.



- **8.** Close the blower cover and secure it with the screw removed in Step 1.
- **9.** Attach the exhaust adaptor to the rear of the microwave by sliding it into the guides at the top center of the back of the oven.



Push in securely until it is in the lower locking tabs. Take care to assure that the damper hinge is installed so that it is at the top and that the damper swings freely. Reinstall the original blower motor screw through the adaptor and into the back of the microwave.

<u>C5. MOUNT THE MICROWAVE OVEN</u>



FOR EASIER INSTALLATION AND PERSONAL SAFETY, WE RECOMMEND THAT **TWO PEOPLE INSTALL THIS MICROWAVE OVEN**.

IMPORTANT: Do not grip or use handle during installation.

NOTE: If your cabinet is metal, use the nylon grommet around the power cord hole to prevent cutting of the cord.

NOTE: We recommend using filler blocks if the cabinet front hangs below the cabinet bottom shelf.

IMPORTANT: If filler blocks are not used, case damage may occur from over tightening screws.

NOTE: When mounting the microwave oven, thread power cord through hole in bottom of top cabinet. Keep it tight throughout Steps 1–3. Do not pinch cord or lift oven by pulling cord.



3. Insert a self-aligning screw through top left cabinet hole. Temporarily secure the oven by turning the screw at least two full turns after the threads have engaged. (It will be completely tightened later.) Be sure to keep power cord tight. Be careful not to pinch the cord, especially when mounting flush to bottom of cabinet.







6. Tighten the outer two screws to the top of the microwave oven. (While tightening screws, hold the microwave oven in place against the wall and the top cabinet.)



7. Install grease filter. See the Owner's Manual packed with the microwave.

BEFORE YOU USE YOUR MICROWAVE



NOTE

Part No. : 316488501 Code No. : DE68-03265A