

Installation Instructions

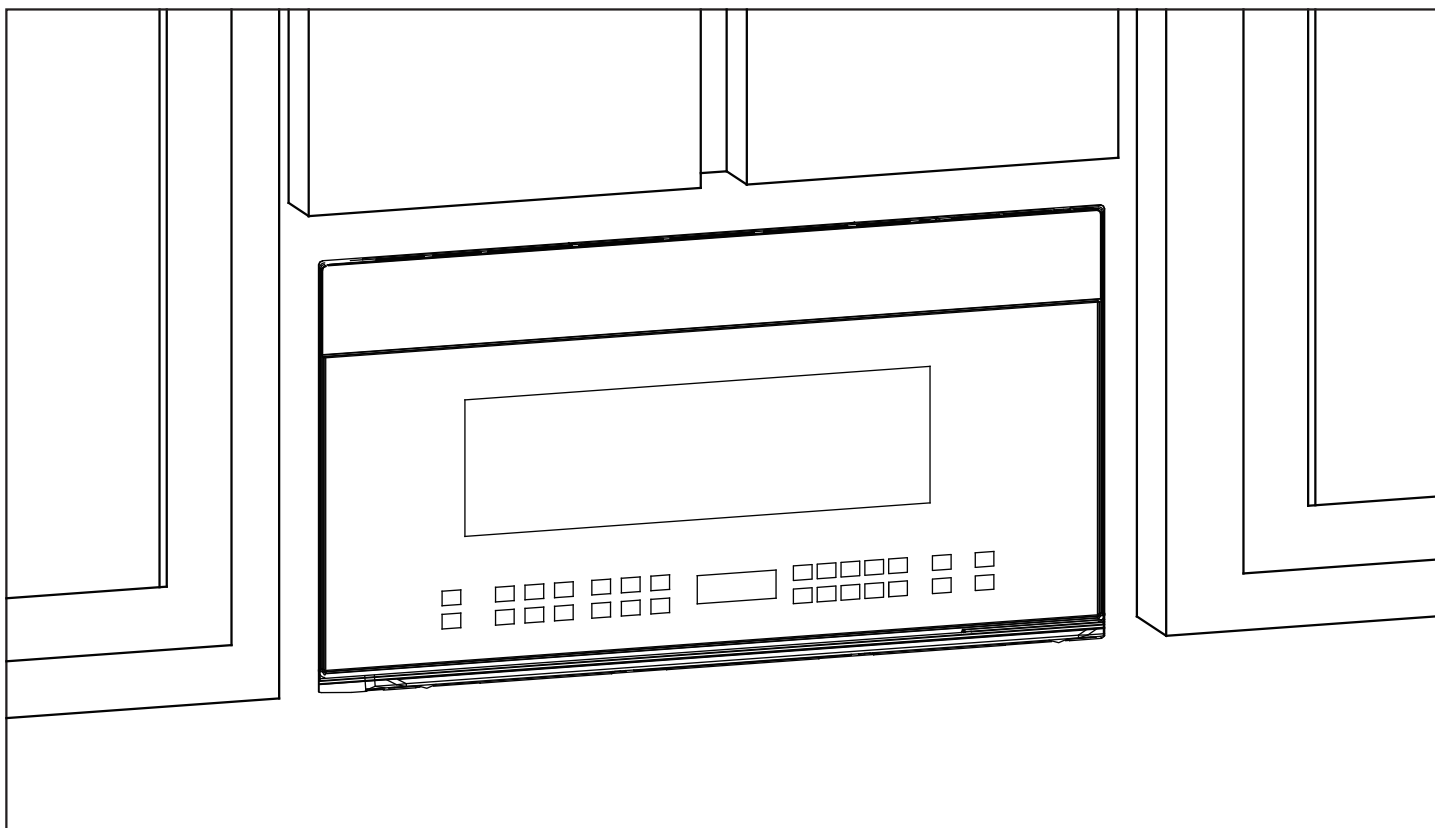
Over the Range Microwave Oven

Model No. NN-SG138S

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.**

Installation Instructions

CONTENTS

General information

Important Safety Instructions	3
Electrical Requirements	3
Damage – Shipment/ Installation.....	4
Parts Included.....	4
Tools You Will Need	5
Mounting Space	5

Step-by-step installation guide

Placement of The Mounting Plate	6–8
Removing the Mounting Plate	6
Finding the Wall Studs.....	6
Determining Wall Plate Location	7
Aligning the Wall Plate	8
Installation Types.....	9–22
Hood Exhaust	10–11
A Outside Top Exhaust	12–15
Attach Mounting Plate to Wall.....	12
Preparation of Top Cabinet.....	13
Adapting Microwave Blower for Outside top Exhaust	13–14
Checking for Proper Damper Operation.....	14
Mount the Microwave Oven	14–15
Adjust the Exhaust Adaptor	15
Connecting Ductwork.....	15
B Outside Back Exhaust.....	16–19
Preparing Rear Wall for Outside Back Exhaust.....	16
Remove Blower Plate	16
Attach Mounting Plate to Wall	17
Preparation of Top Cabinet	17

Adapting Microwave Blower for Outside Back Exhaust.....	17–18
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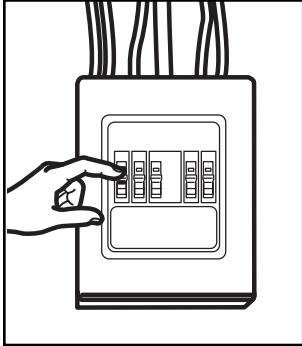
Mount the Microwave Oven	19
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C Recirculating	20–22
Attach Mounting Plate to Wall	20
Preparation of Top Cabinet	21
Check Blower Plate	21
Mount the Microwave Oven	21–22
Installing or Change the Charcoal Filter	22
Before You Use Your Microwave	24
Template Information.....	25

Installation Instructions

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 ensure 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.



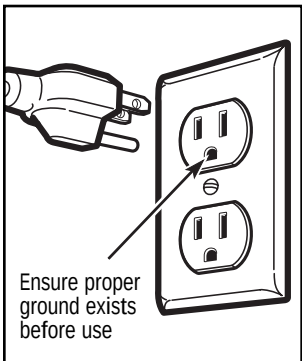
CAUTION: For personal safety, remove house fuse or open circuit breaker before beginning installation to avoid severe or fatal shock injury.

CAUTION: For personal safety, the mounting surface must be capable of supporting the cabinet load, in addition to the added weight of this 63–85 pound (28.5–38.5 kg) product, plus additional oven loads of up to 50 pounds (22.7 kg) or a total weight of 113–135 pounds (51.3–61.2 kg).

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 VAC, 60 Hz, 15 amps and 1.55 kilowatts. This product must be connected to a separate and dedicated 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 and dedicated 15-20 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.

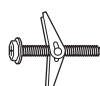
Installation Instructions

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

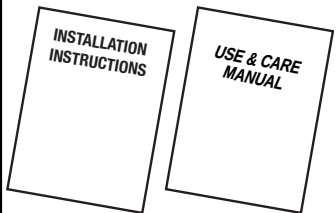
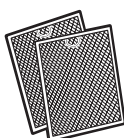
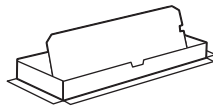
HARDWARE PACKET

PART		QUANTITY
	Wood Screws ($\frac{1}{4}$ " x 2")	2
	Toggle Bolts (and wing nuts) ($\frac{3}{16}$ " x 3")	2
	Self-Aligning Machine Screws ($\frac{1}{4}$ "-28 x $3\frac{1}{4}$ ")	3
	Nylon Grommet (for metal cabinets)	1

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.

PARTS INCLUDED (CONT.) ADDITIONAL PARTS

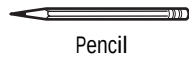
PART		QUANTITY
	Top Cabinet Template	1
	Rear Wall Template	1
	Installation Instructions	1
	Use & Care Manual	1
	Separately Packed Grease Filters	2
	Exhaust adaptor	1
	Glass Tray	1
	Turntable Ring	1

Installation Instructions

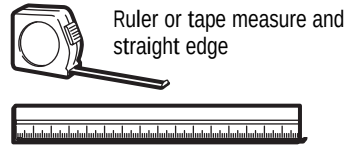
TOOLS YOU WILL NEED



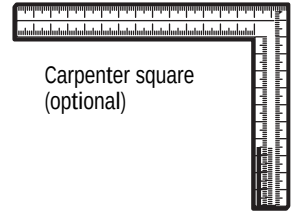
1 Phillips screwdriver



Pencil



Ruler or tape measure and straight edge



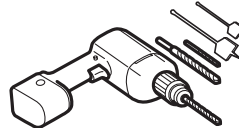
Carpenter square (optional)



Tin snips (for cutting damper, if required)



Scissors (to cut template, if necessary)



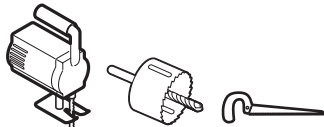
Electric drill with $\frac{3}{16}$ " , $\frac{1}{2}$ " and $\frac{5}{8}$ " drill bits



Filler blocks or scrap wood pieces, if needed for top cabinet spacing (used on recessed bottom cabinet installations only)



Gloves



Saw (saber, hole or keyhole)



Stud finder **or** Hammer (optional)



Safety goggles

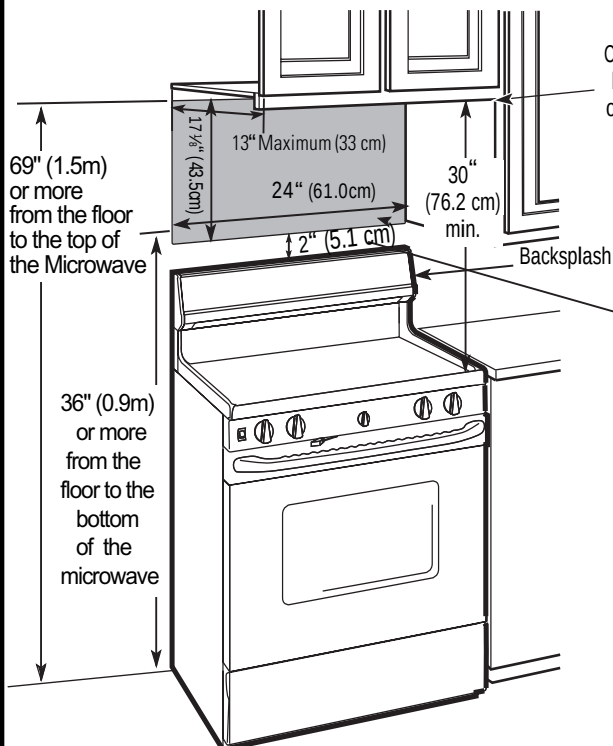


Level



Duct and masking tape

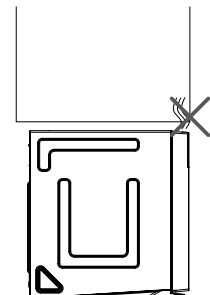
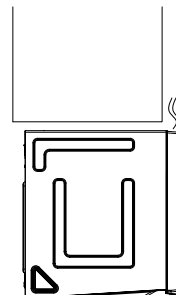
MOUNTING SPACE



Bottom Edge of Cabinet Needs to be 30" (76.2 cm) or More from the Cooking Surface

NOTES:

- The space between the cabinets must be 24" (61.0cm) wide and free of obstructions.
- If you are going to vent your microwave oven to the outside, see Hood Exhaust Section for exhaust duct preparation.
- When installing the microwave oven beneath smooth, flat cabinets, be careful to follow the instructions on the top cabinet template for power cord clearance.
- As a guide to installation, see page 25 for Mounting Template Information.
- If the cabinet depth including the cabinet doors is more than 13" then the unit must be spaced out from wall using adequate materials supporting 150 lbs to allow proper top vent air exhaust/intake.

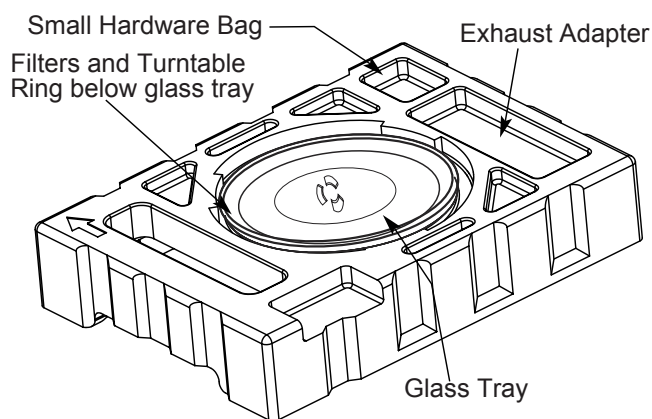


Installation Instructions

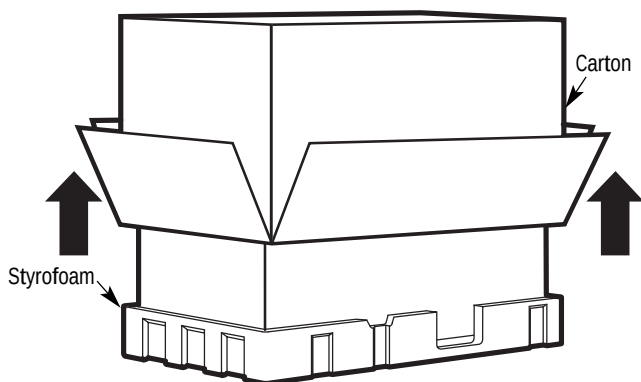
1 PLACEMENT OF THE MOUNTING PLATE

A. REMOVING THE MICROWAVE OVEN FROM THE CARTON/ REMOVING THE MOUNTING PLATE

- 1** Remove the installation instructions, use and care, exhaust adapter, turntable ring, filters, glass tray and the small hardware bag. Do not remove the Styrofoam protecting the front of the oven.

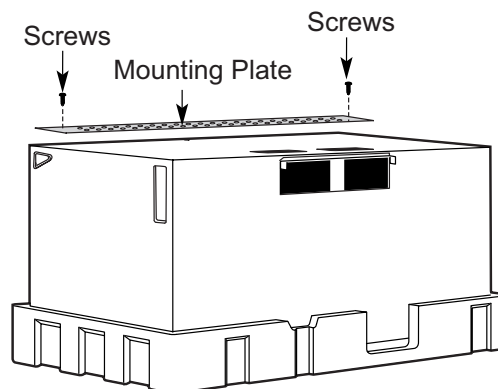


- 2** Fold back all 4 carton flaps fully against carton sides. Then carefully roll the oven and carton over onto the top side. The oven should be resting in the Styrofoam.



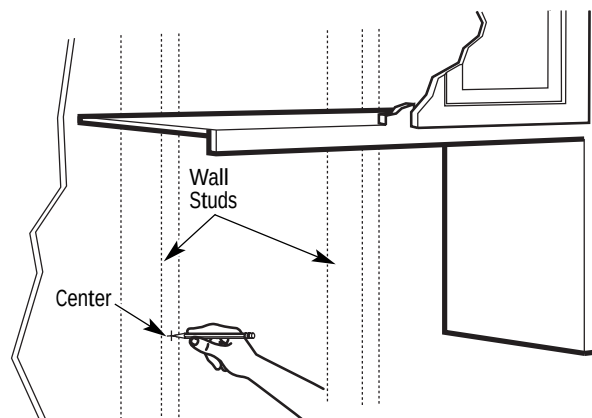
- 3** Pull the carton up and off the oven.

- 4** Cut the middle of the outer protective plastic bag to remove the mounting plate



- 5** Remove the screws from each end of the mounting plate. This plate will be used as the rear wall template and for mounting. Reinstall the screws into the holes where they were removed.

B. FINDING THE WALL STUDS



- 1** Find the studs, using one of the following methods:

- A. Stud finder – a magnetic device which locates nails.
- 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" (40.6 cm) or 24" (61 cm) from this mark.

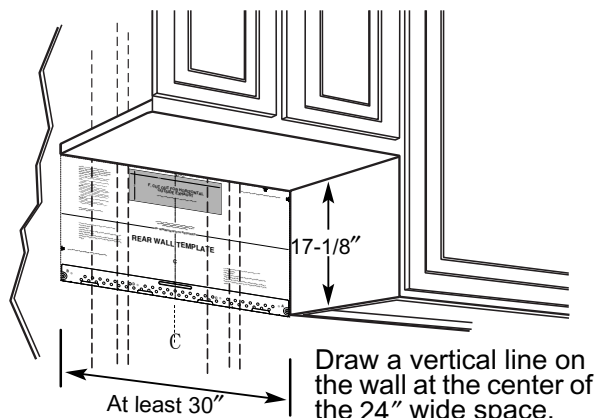
- 3** Draw a line down the center of the studs.

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

Installation Instructions

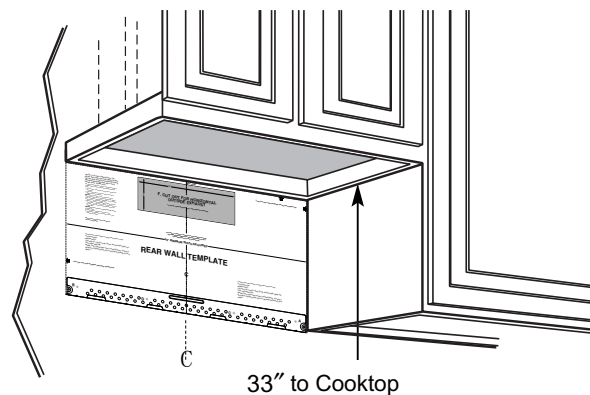
C. DETERMINING WALL PLATE LOCATION UNDER YOUR CABINET

Plate position-beneath flat bottom cabinet



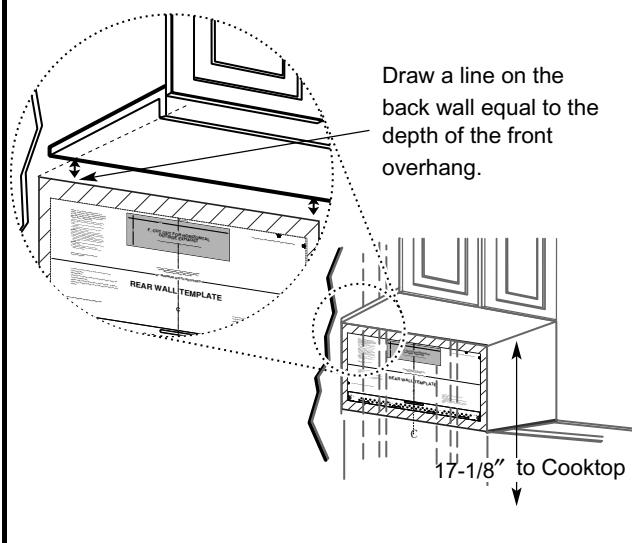
Draw a vertical line on the wall at the center of the 24" wide space. Tape the Rear Wall Template onto the wall matching the centerline and touching the bottom of the cabinet.

Plate position-beneath framed recessed cabinet bottom



Draw a vertical line on the wall at the center of the 24" space. Tape the Rear Wall Template onto the wall matching the centerline and touching the bottom cabinet frame.

Plate position-beneath recessed bottom cabinet with front overhang



Draw a line on the back wall equal to the depth of the front overhang.

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.

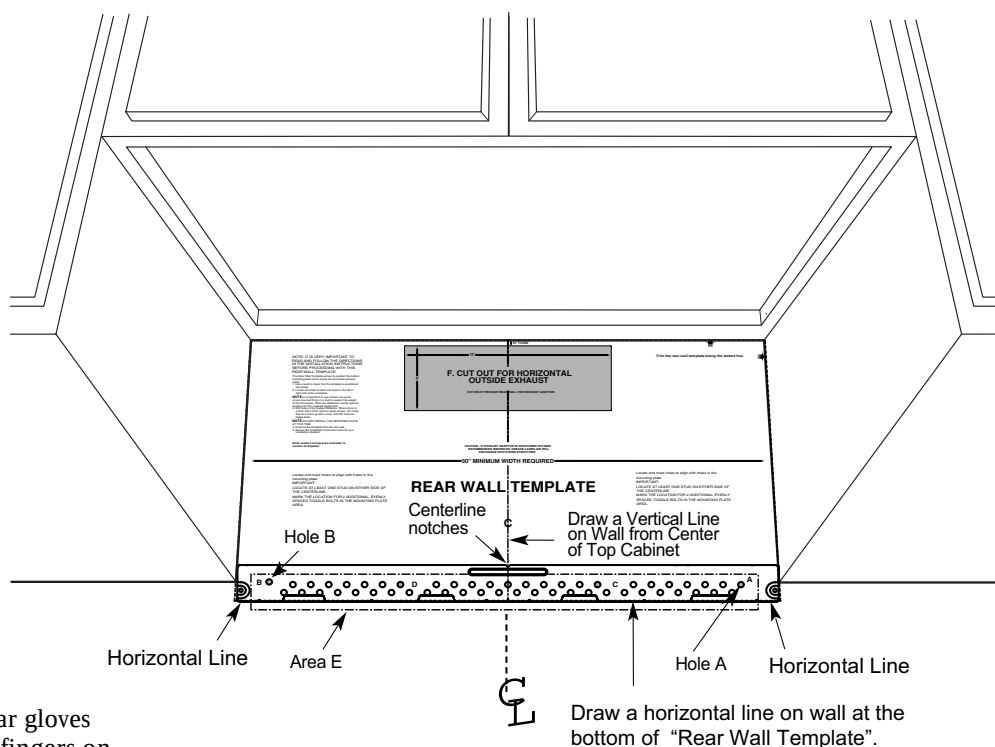
Use a level to make sure the cabinet bottom is level.

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

D. ALIGNING THE WALL PLATE



CAUTION: Wear gloves to avoid cutting fingers on sharp edges.

- 1** Draw a vertical line on the wall at the center of the 24" wide space.
- 2** Draw a horizontal line on the wall at the bottom of "Rear Wall Template".
- 3** Find a wall stud in area "E" of mounting plate. Refer to section 1B. Finding the wall studs.
- 4** For attaching the mounting plate into stud drill a 3/16" hole into wood stud. Drill a 5/8" hole for toggle bolt in 1 other location (Hole A or Hole B)

NOTE: DO NOT MOUNT THE PLATE AT THIS TIME.

NOTE: Holes A and B are inside area E. If neither of Holes A and B are not in a stud, find a stud somewhere in area E and draw a circle to line up with the stud. It is important to have **at least one wood screw** mounted **firmly in a stud** to support the weight of the microwave. **Set the mounting plate aside.**

Installation Instructions

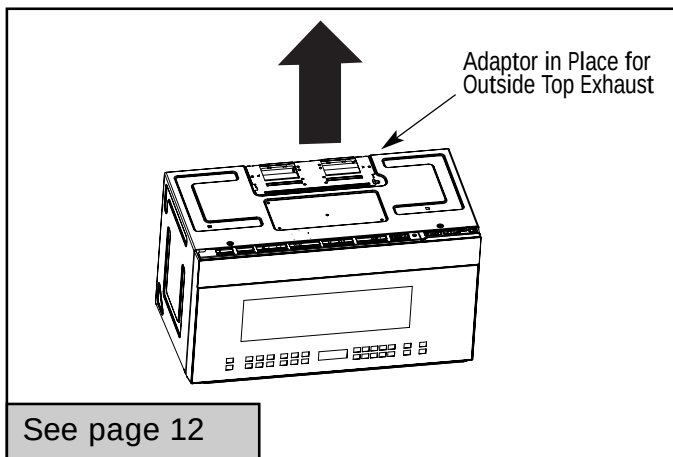
2 INSTALLATION TYPES (Choose A, B or C)

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

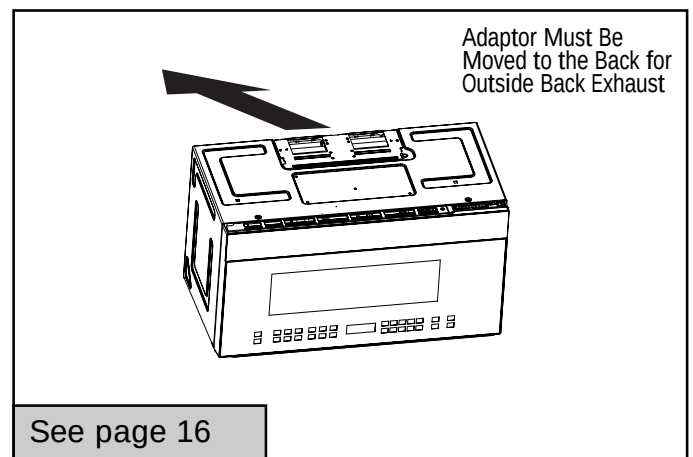
- A. Outside Top Exhaust (Vertical Duct)
- B. Outside Back Exhaust (Horizontal Duct)
- C. Recirculating (Non-Vented Ductless)

NOTE: This microwave is shipped assembled for Recirculating. Select the type of ventilation required for your installation and proceed to that section.

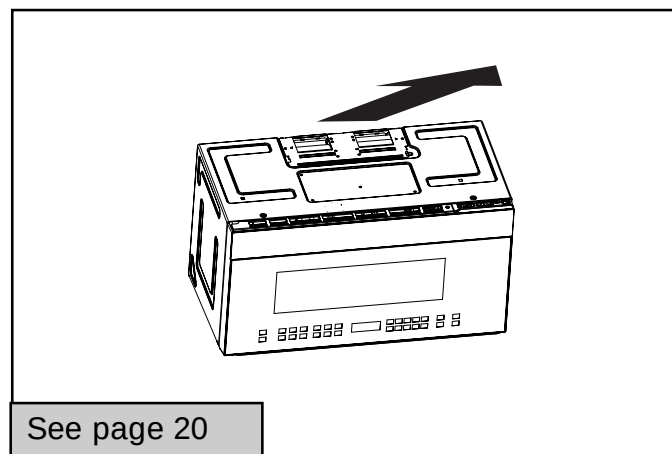
A OUTSIDE TOP EXHAUST (VERTICAL DUCT)



B OUTSIDE BACK EXHAUST (HORIZONTAL DUCT)



C RECIRCULATING (NON-VENTED DUCTLESS)



Models are shipped for recirculating exhaust. Some models have a disposable charcoal filter installed to help remove smoke and odors.

NOTE: Read the 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 20.

Installation Instructions

INSTALLATION INSTRUCTIONS FOR EXTERNAL EXHAUST DUCTING

NOTE: If you need to install ducts, note that the total duct length of 3¼" x 10" (8.2 x 25.4 cm) rectangular or 5" (12.7 cm) diameter / 6" (15.2 cm) diameter round duct **should not exceed 120 equivalent feet (36.5 m).**

Outside ventilation requires an EXTERNAL 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:

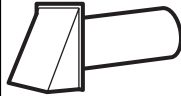
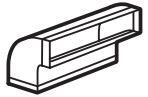
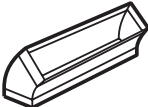
The exhaust adaptor has been designed to mate with a standard 3¼" x 10" (8.2 x 25.4 cm) rectangular duct.

If a round duct is required, a rectangular-to-round transition adaptor must be used. **A 5" (12.7 cm) / 6" (15.2 cm) diameter duct is acceptable to use.**

Maximum duct length:

For satisfactory air movement, the total duct length of 3¼" x 10" (8.2 x 25.4 cm) rectangular or 5" (12.7 cm) diameter / 6" (15.2 cm) diameter round duct **should not exceed 120 equivalent feet (36.5 m).**

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. (1.5 m)	x	()	=	Ft. or m
	Wall Cap	40 Ft. (12.2 m)	x	()	=	Ft. or m
	90° Elbow	10 Ft. (3 m)	x	()	=	Ft. or m
	45° Elbow	5 Ft. (1.5 m)	x	()	=	Ft. or m
	90° Elbow	25 Ft. (7.6 m)	x	()	=	Ft. or m
	45° Elbow	5 Ft. (1.5 m)	x	()	=	Ft. or m
	Roof Cap	24 Ft. (7.3 m)	x	()	=	Ft. or m
	Straight Duct 6" (15.2 cm) Round or 3¼" x 10" (8.2 x 25.4 cm Rectangular)	1 Ft. (0.3 m)	x	()	=	Ft. or m
Total Ductwork					=	Ft. or m



*** 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.

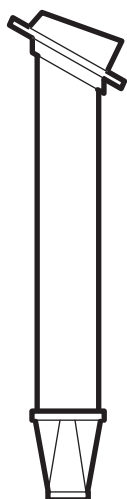
Equivalent lengths of duct pieces are based on actual tests and reflect requirements for good venting performance with any vent hood.

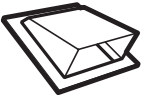
Installation Instructions

EXTERNAL EXHAUST DUCTING

OUTSIDE TOP EXHAUST (EXAMPLE ONLY)

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

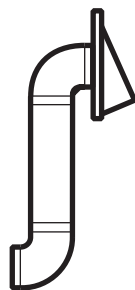


DUCT PIECES		EQUIVALENT LENGTH	x	NUMBER USED	=	EQUIVALENT LENGTH
	Roof Cap	24 Ft. (7.3 m)	x	(1)	=	24 Ft. (7.3 m)
	12 Ft. (3.6 m) Straight Duct (6"/15.2 cm Round)	12 Ft. (3.6 m)	x	(1)	=	12 Ft. (3.6 m)
	Rectangular-to-Round Transition Adaptor*	5 Ft. (1.5 m)	x	(1)	=	5 Ft. (1.5 m)
Equivalent lengths of duct pieces are based on actual tests and reflect requirements for good venting performance with any vent hood.						
Total Length =						41 Ft. (12.4 m)

*** 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		EQUIVALENT LENGTH*	x	NUMBER USED	=	EQUIVALENT LENGTH
	Wall Cap	40 Ft. (12.2 m)	x	(1)	=	40 Ft. (12.2 m)
	3 Ft. Straight Duct (3 3/4" x 10"/8.2 x 25.4 cm Rectangular)	3 Ft. (0.9 m)	x	(1)	=	3 Ft. (0.9 m)
	90° Elbow	10 Ft. (3 m)	x	(2)	=	20 Ft. (6 m)
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. (19.1 m)

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.

Installation Instructions

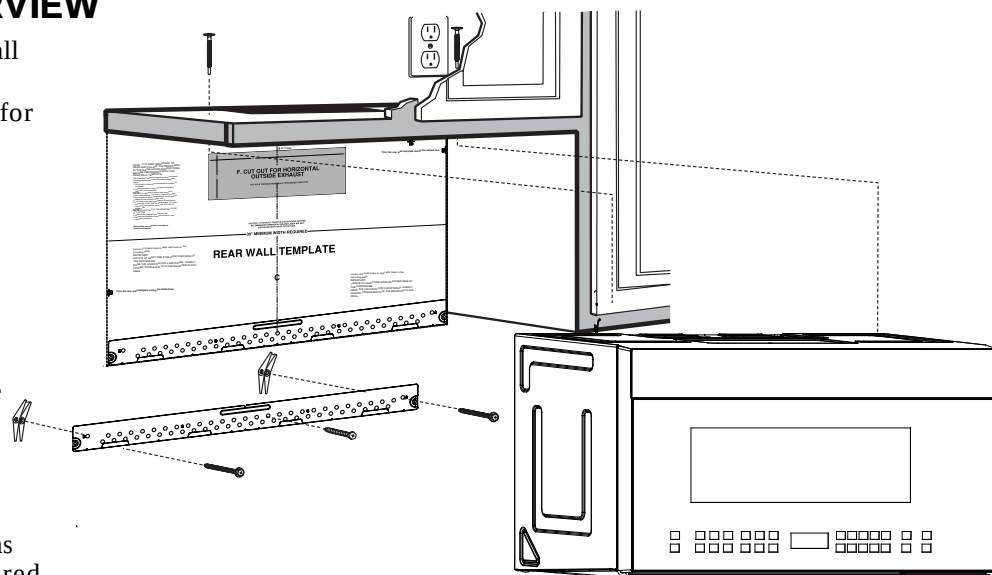
A OUTSIDE TOP EXHAUST (Vertical Duct)

INSTALLATION OVERVIEW

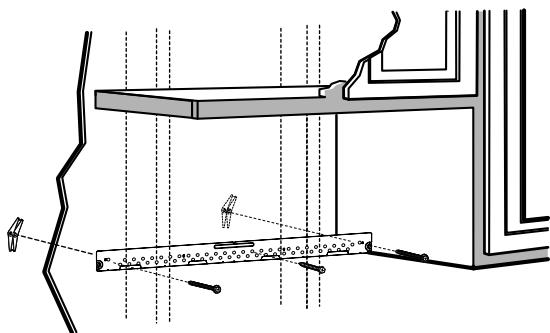
- A1. Attach Mounting Plate to Wall
- A2. Prepare Top Cabinet
- A3. Adapting Microwave Blower for Outside Top Exhaust
- A4. Check Damper Operation
- A5. Mount Microwave Oven
- A6. Adjust Exhaust Adaptor
- A7. Connect Ductwork

IMPORTANT NOTES:

- Make sure the screws for the blower motor and blower plate are securely tightened when they are reinstalled. This will help to prevent excessive vibration.
- Make sure the motor wiring has been properly routed and secured, and that the wires are not pinched.



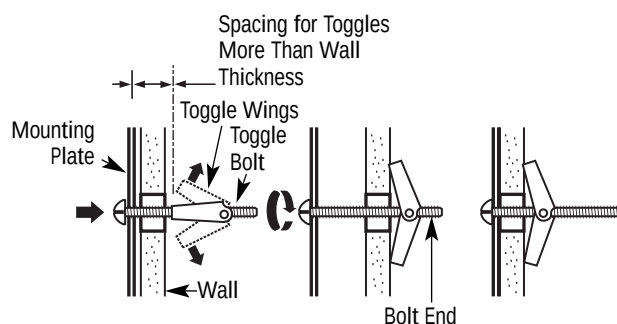
A1. ATTACH THE MOUNTING PLATE TO THE WALL



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.
- 2 Insert the bolts into the mounting plate through the holes designated to go into drywall and reattach the toggle wings to $\frac{3}{4}$ " (19 mm) onto each bolt.

To use toggle bolts:



- 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 the bottom of the mounting plate touch the bottom of the cabinet when pushed flush against the wall and that the plate is properly centered under the cabinet.

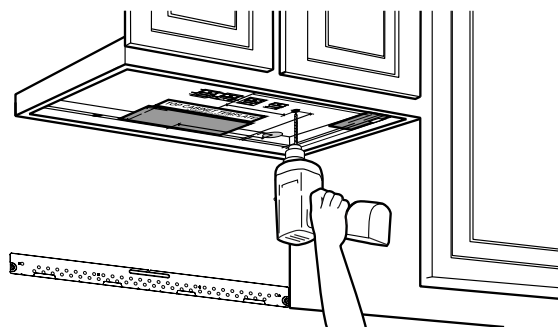
CAUTION: Be careful to avoid pinching fingers between the back of the mounting plate and the wall.

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

Installation Instructions

A2. 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.

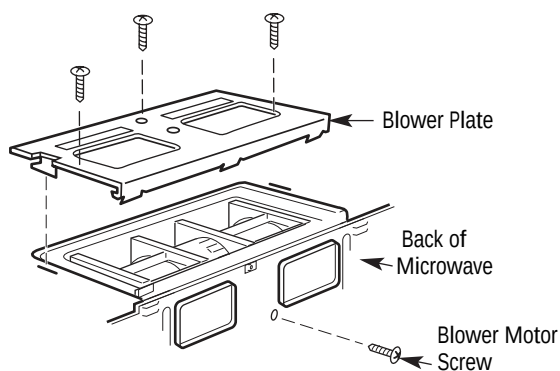


- Read the instructions on the TOP CABINET TEMPLATE.
- Tape it underneath the top cabinet.
- Drill the holes, following the instructions on the TOP CABINET TEMPLATE.

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

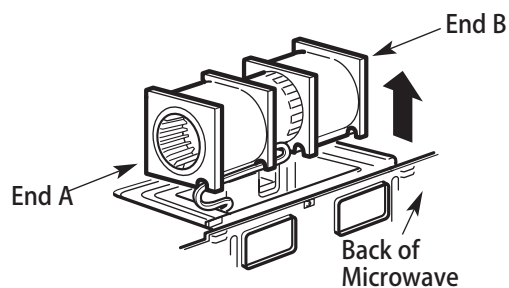
A3. ADAPTING MICROWAVE BLOWER FOR OUTSIDE TOP EXHAUST

- 1 Place the microwave in its upright position, with the top of the unit facing up.

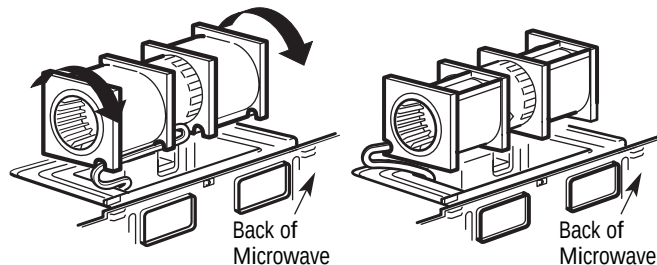


Remove the screw that holds the blower plate to the microwave. Remove and save the screw holding the blower motor to the microwave.

- 2 Carefully pull out the blower unit. The wires will extend far enough to allow you to adjust the blower unit.

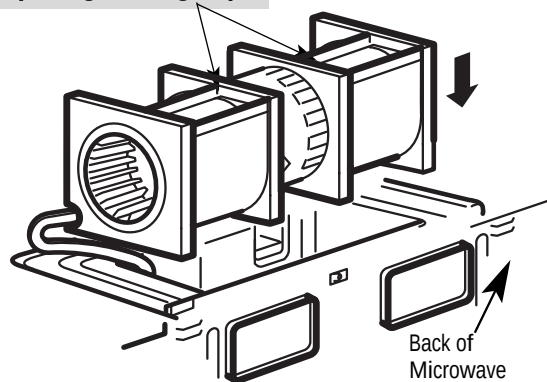


- 3 Roll the blower unit 90° so that fan blade openings are facing out the top of the microwave.



- 4 Place the blower unit back into the opening.

AFTER: Fan Blade Openings Facing Top

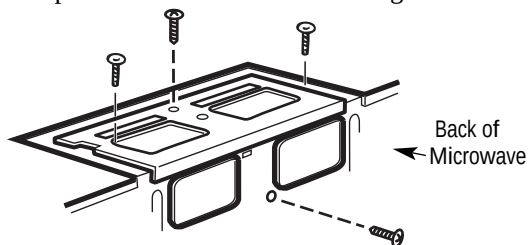


CAUTION: Do not pull or stretch the blower unit wiring. Make sure the wires are not pinched, and that they are properly secured.

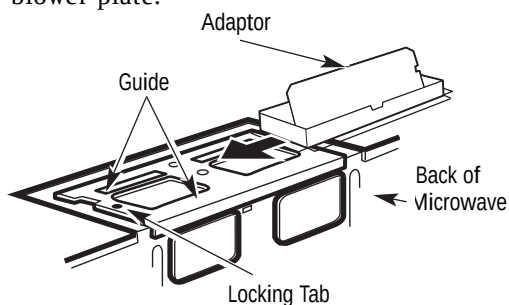
Installation Instructions

A3. ADAPTING MICROWAVE BLOWER FOR OUTSIDE TOP EXHAUST

- 5 Secure blower unit to microwave with the screw removed in Step 1. Make sure the screw is tight.
- 6 Replace blower plate with the screw removed in Step 1. Make sure the screw is tight.

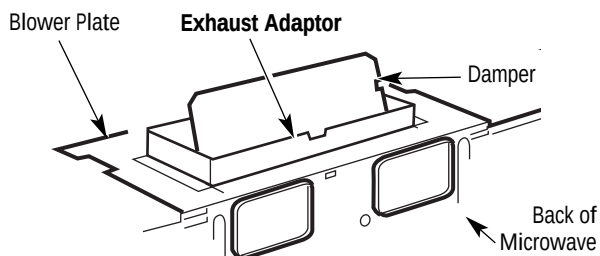


- 7 Attach the exhaust adaptor to the top of the blower plate by sliding it into the guides of the blower plate.



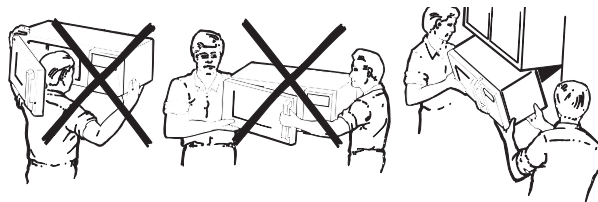
Push in securely until it is in the locking tabs. Take care to assure that the damper hinge is installed so that the damper swings freely.

A4. CHECK FOR PROPER DAMPER OPERATION



- 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.

A5. 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 the handle or heat shield during installation. Do not remove the cardboard spacers between the heat shield and door.

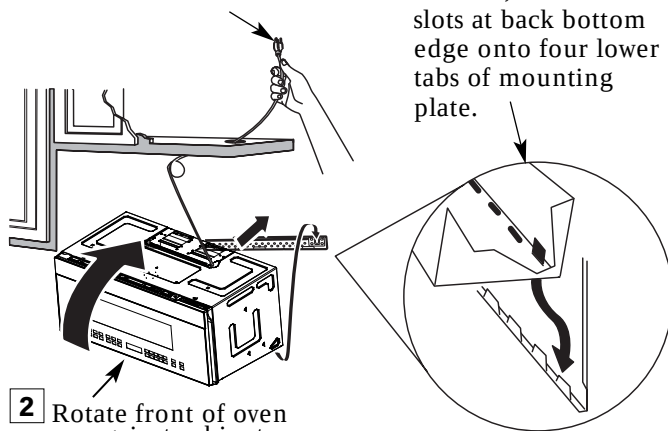
NOTE: If your cabinet is metal, use the nylon grommet around the power cord hole to prevent cutting of the cord.

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 overtightening 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.

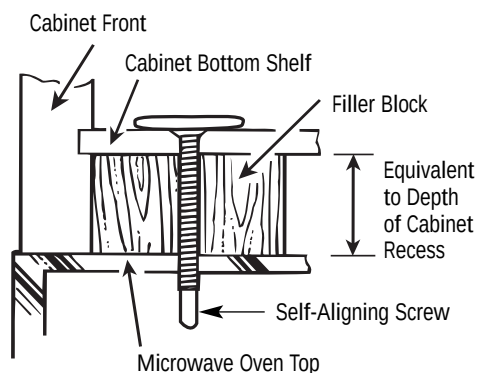
- 1 Lift microwave, tilt it forward, and hook slots at back bottom edge onto four lower tabs of mounting plate.



- 2 Rotate front of oven up against cabinet bottom.
- 3 Insert a self-aligning screw through top center 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.**

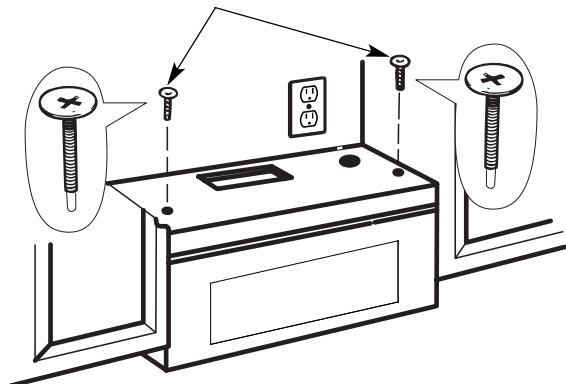
Installation Instructions

A5. MOUNT THE MICROWAVE OVEN (cont.)

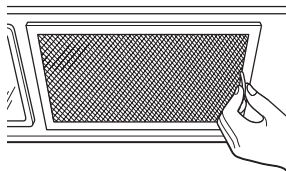


- 4** Attach the microwave oven to the top cabinet.

- 5** Insert 2 self-aligning screws through outer top cabinet holes. Turn two full turns on each screw.



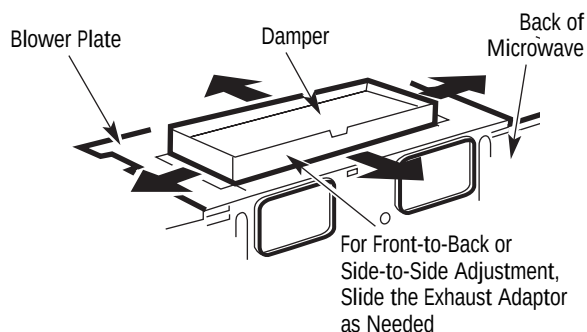
- 7** Tighten the outer two screws to the top of the microwave oven. (While tightening screws, hold the microwave oven in place against the wall and the top cabinet.)



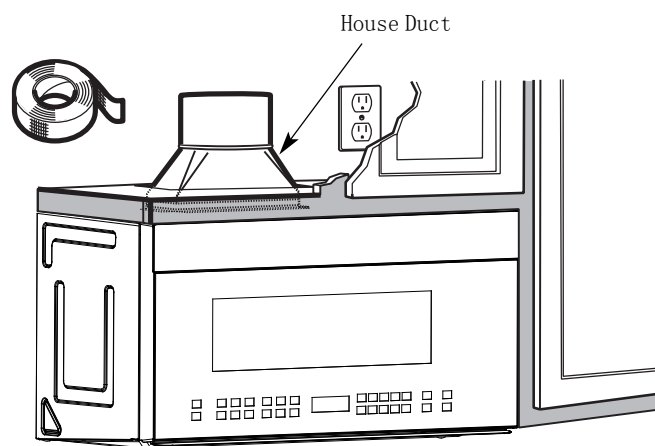
- 8** Install grease filters. See the Use & Care packed with the microwave.

A6. ADJUST THE EXHAUST ADAPTOR

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



A7. CONNECTING DUCTWORK



- 1** Extend the house duct down to connect to the exhaust adaptor.
- 2** Seal exhaust duct joints using furnace duct tape for high temperature applications.

Installation Instructions

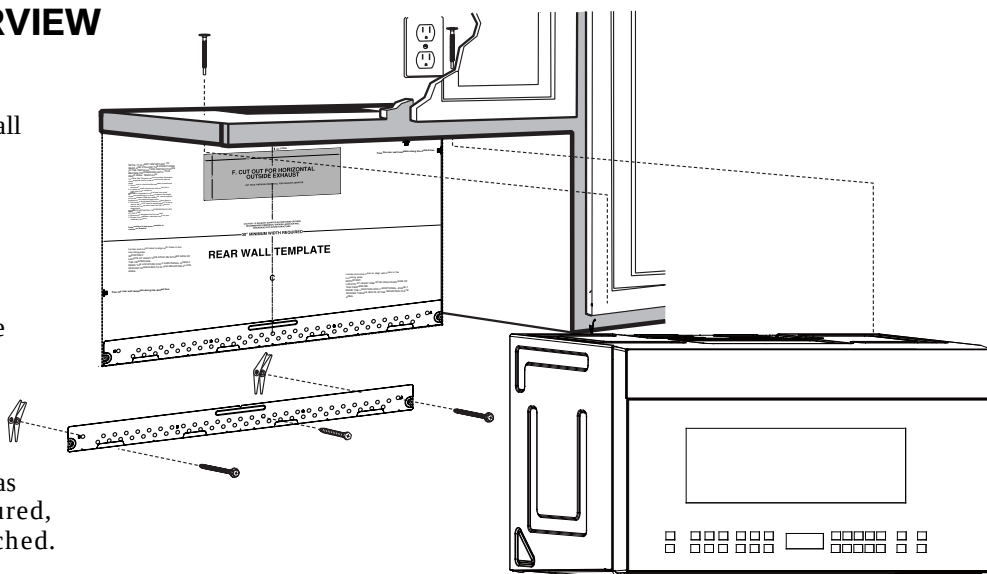
B OUTSIDE BACK EXHAUST (Horizontal Duct)

INSTALLATION OVERVIEW

- B1.** Prepare Rear Wall
- B2.** Remove Blower Plate
- B3.** Attach Mounting Plate to Wall
- B4.** Prepare Top Cabinet
- B5.** Adjust Blower
- B6.** Mount the Microwave Oven

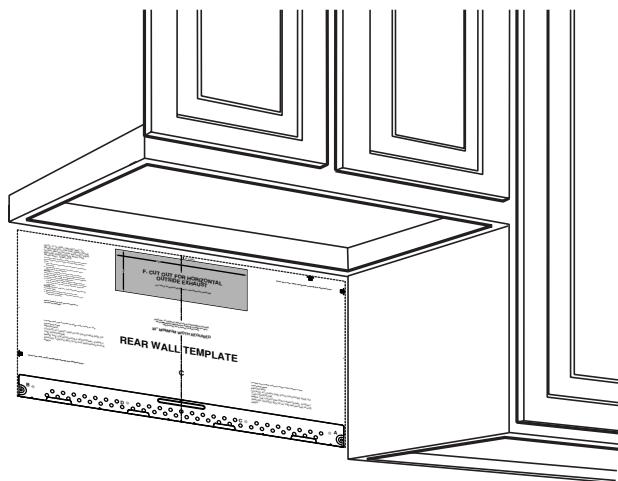
IMPORTANT NOTES:

- Make sure the screws for the blower motor and blower plate are securely tightened when they are reinstalled. This will help to prevent excessive vibration.
- Make sure the motor wiring has been properly routed and secured, and that the wires are not pinched.



B1. PREPARING THE REAR WALL FOR OUTSIDE BACK EXHAUST

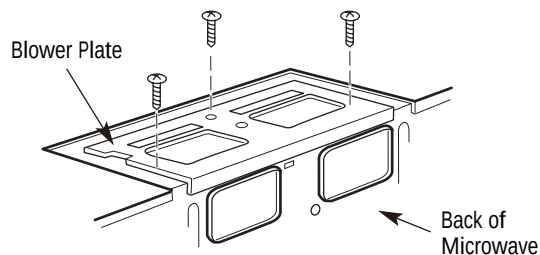
You need to cut an opening in the rear wall for outside exhaust.



- Read the instructions on the REAR WALL TEMPLATE.
- Tape it to the rear wall.
- Cut the opening, following the instructions of the REAR WALL TEMPLATE.

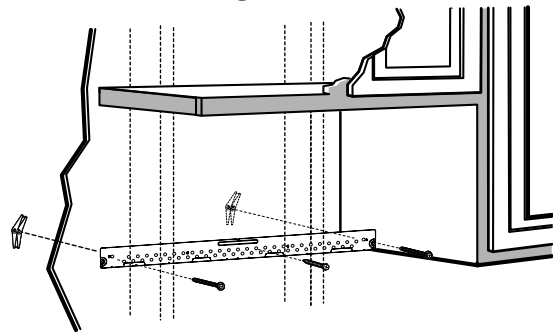
B2. REMOVE BLOWER PLATE

Remove and save the screw that holds the blower plate to the microwave. Lift off the blower plate.



Installation Instructions

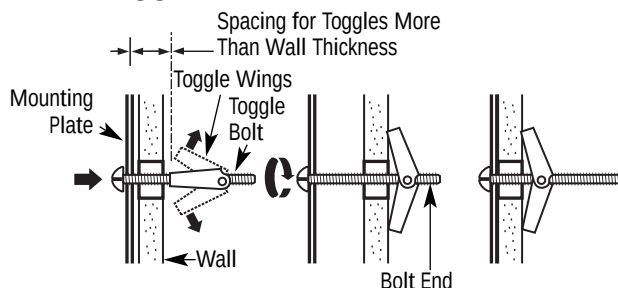
B3. ATTACH THE MOUNTING PLATE TO THE WALL



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.
- 2 Insert the bolts into the mounting plate through the holes designated to go into drywall and reattach the toggle wings to $\frac{3}{4}$ " (19 mm) onto each bolt.

To use toggle bolts:



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

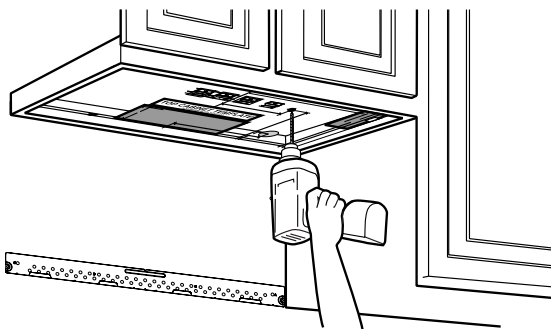
NOTE: Before tightening toggle bolts and wood screw, make sure the bottom of the mounting plate touch the bottom of the cabinet when pushed flush against the wall and that the plate is properly centered under the cabinet.

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.

B4. 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.

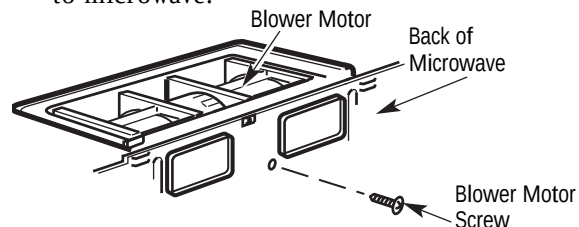


- Read the instructions on the TOP CABINET TEMPLATE.
- Tape it underneath the top cabinet.
- Drill the holes, following the instructions on the TOP CABINET TEMPLATE.

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

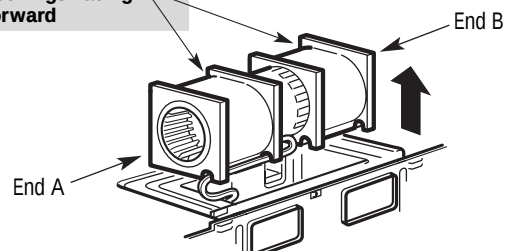
B5. ADAPTING MICROWAVE BLOWER FOR OUTSIDE BACK EXHAUST

- 1 Remove and save screw that holds blower motor to microwave.



- 2 Carefully pull out the blower unit. The wires will extend far enough to allow you to adjust the blower unit.

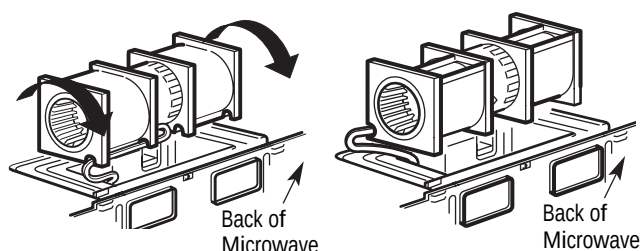
Before: Fan Blade Openings Facing Forward



- 3 Roll the blower unit 90°

Before Rotation

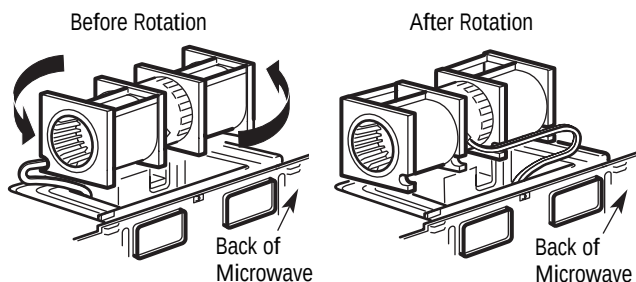
After Rotation



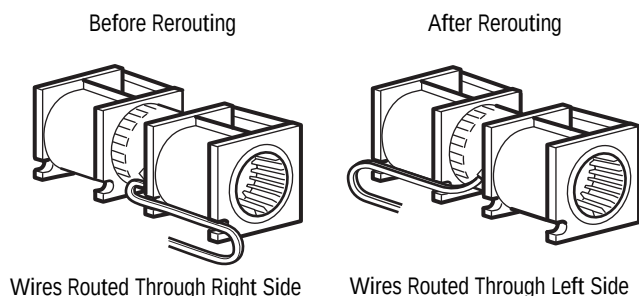
Installation Instructions

B5. ADAPTING MICROWAVE BLOWER FOR OUTSIDE BACK EXHAUST (cont.)

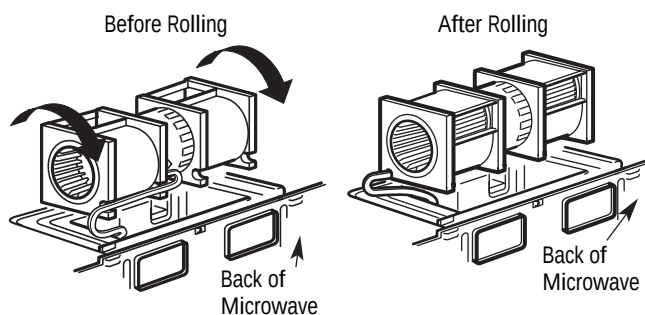
- 4 Rotate blower unit counterclockwise 180°.



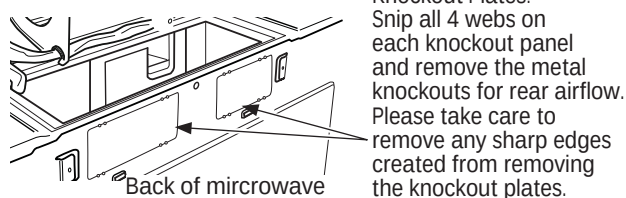
- 5 Gently remove the wires from the grooves. Reroute the wires through grooves on other side of the blower unit.



- 6 Roll the blower unit 90° so that fan blade openings are facing out the back of the microwave.



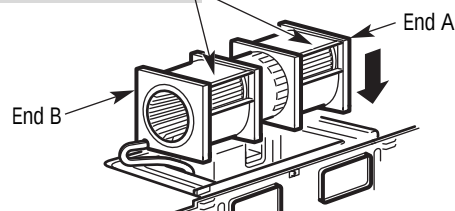
- 7 Remove the knockout plates in the back of the unit with snips. (For some models)



Knockout Plates: Snip all 4 webs on each knockout panel and remove the metal knockouts for rear airflow. Please take care to remove any sharp edges created from removing the knockout plates.

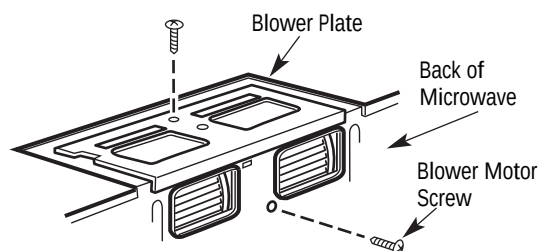
- 8 Place the blower unit back into the opening.

AFTER: Fan Blade Openings Facing Back



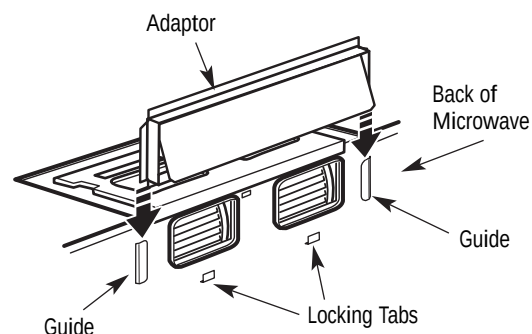
CAUTION: Do not pull or stretch the blower unit wiring. Make sure the wires are not pinched, and that they are properly secured.
NOTE: The blower unit exhaust openings should match exhaust openings on rear of microwave oven.

- 9 Secure the blower unit to the microwave with the original screw.



- 10 Replace the blower plate in the same position as before with the screw. Make sure the screw is tight.

- 11 Attach the exhaust adaptor to the rear of the oven 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.

Installation Instructions

B6. MOUNT THE MICROWAVE OVEN



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

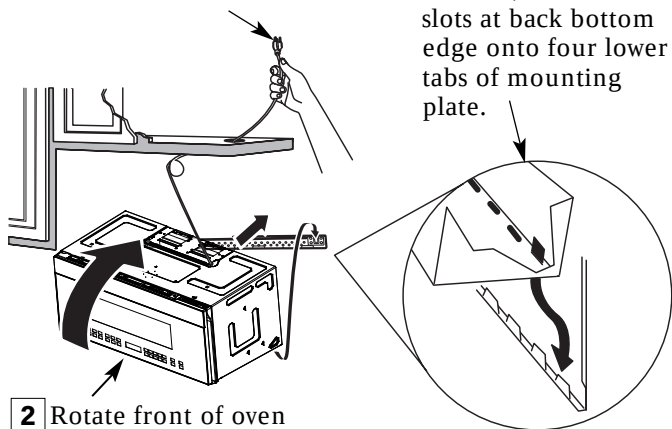
IMPORTANT: Do not grip or use the handle or heat shield during installation. Do not remove the cardboard spacers between the heat shield and door.

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 overtightening screws.

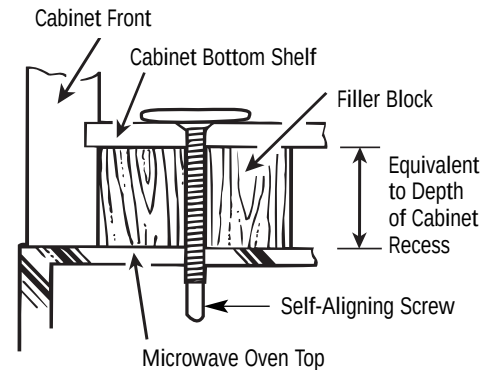
NOTE: When mounting the microwave oven, thread power cord through hole in bottom of top cabinet. Keep it tight throughout Steps 1–3. Do not pinch cord or lift oven by pulling cord.



- 1** Lift microwave, tilt it forward, and hook slots at back bottom edge onto four lower tabs of mounting plate.

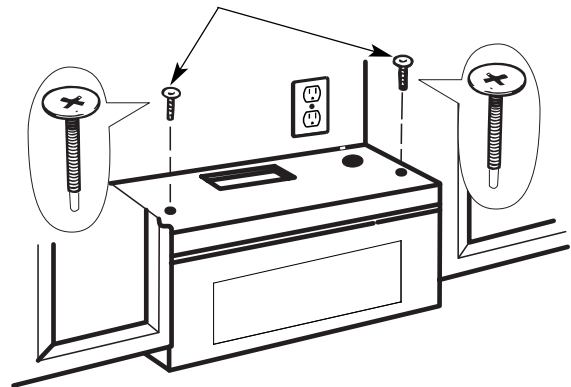
- 2** Rotate front of oven up against cabinet bottom.

- 3** Insert a self-aligning screw through top center 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.**

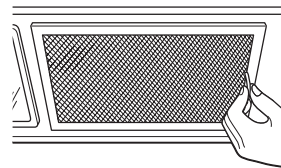


- 4** Attach the microwave oven to the top cabinet.

- 5** Insert 2 self-aligning screws through outer top cabinet holes. Turn two full turns on each screw.



- 7** 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.)



- 8** Install grease filters. See the Use and Care packed with the microwave.

Installation Instructions

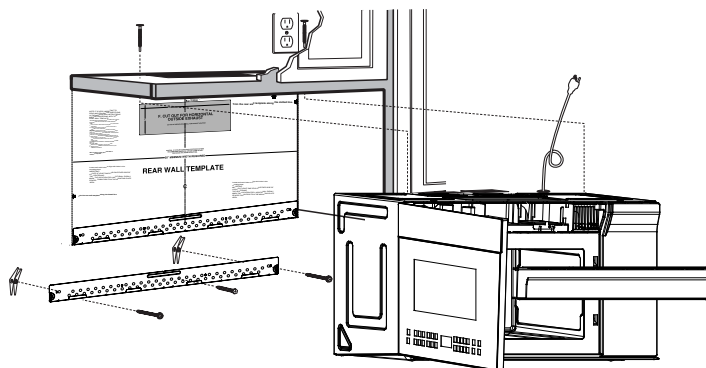
C RECIRCULATING (Non-Vented Ductless)

INSTALLATION OVERVIEW

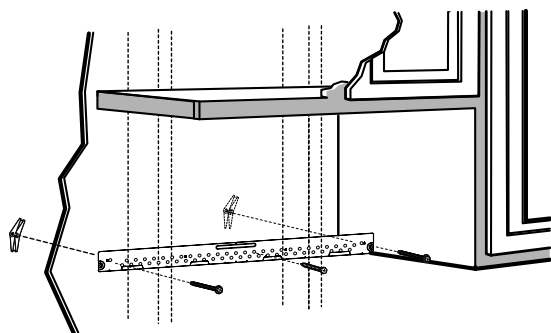
- C1. Attach Mounting Plate to Wall
- C2. Prepare Top Cabinet
- C3. Check Blower Plate
- C4. Mount the Microwave Oven
- C5. Install or change Charcoal Filter

IMPORTANT NOTES:

- Make sure the screws for the blower motor and blower plate are securely tightened when they are reinstalled. This will help to prevent excessive vibration.
- Make sure the motor wiring has been properly routed and secured, and that the wires are not pinched.

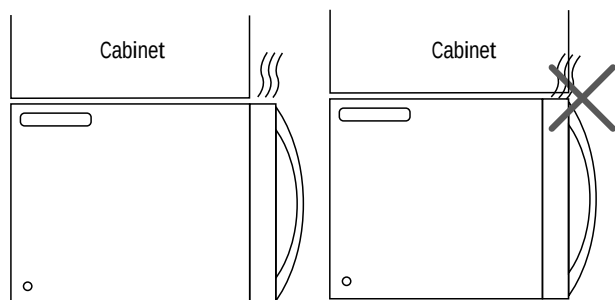


C1. ATTACH THE MOUNTING PLATE TO THE WALL



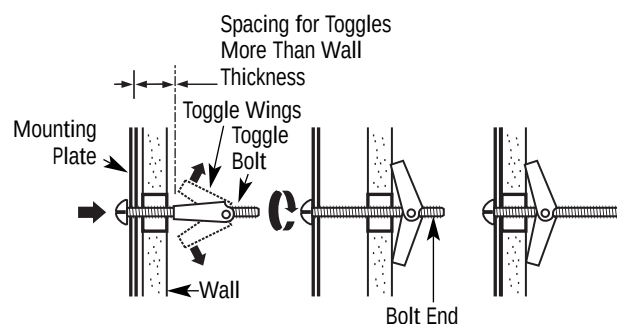
Attach the plate to the wall using toggle bolts. At least one wood screw must be used to attach the plate to a wall stud.

NOTE: If the cabinet depth including the cabinet doors is more than 13" then the unit must be spaced out from wall using adequate materials supporting 150 lbs to allow proper top vent air exhaust/intake.



- 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 $\frac{3}{4}$ " (19 mm) onto each bolt.

To use toggle bolts:



- 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 the bottom of the mounting plate touch the bottom of the cabinet when pushed flush against the wall and that the plate is properly centered under the cabinet.

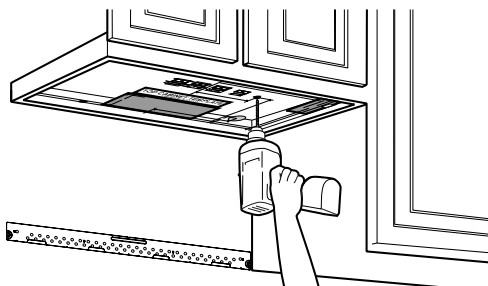
CAUTION: Be careful to avoid pinching fingers between the back of the mounting plate and the wall.

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

Installation Instructions

C2. 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.



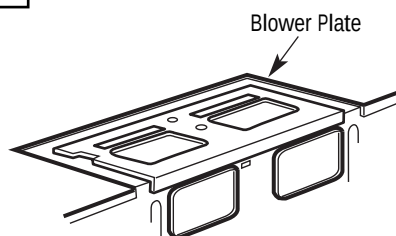
- Read the instructions on the TOP CABINET TEMPLATE.
- Tape it underneath the top cabinet.

NOTE: Adjust top template accordingly if the microwave is being spaced out from the wall due to cabinet depth (including cabinet doors) of more than 13".

- Drill the holes, following the instructions on the TOP CABINET TEMPLATE.

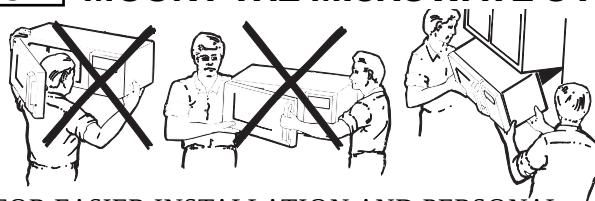
CAUTION: Wear safety goggles when drilling holes in the cabinet bottom.

C3. CHECK BLOWER PLATE



- Place the microwave in its upright position, with the top of the unit facing up.
- Check to see that the blower plate is correctly installed on the unit.

C4. 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 the handle or heat shield during installation. Do not remove the cardboard spacers between the heat shield and door.

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

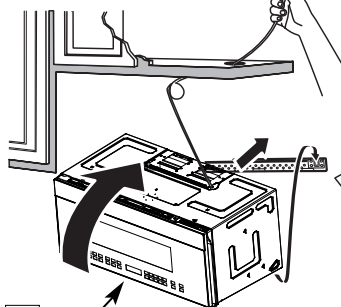
NOTE: We recommend using filler blocks if the cabinet front hangs below the cabinet bottom shelf.

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

NOTE: When mounting the microwave oven, thread power cord through hole in bottom of top cabinet. Keep it tight throughout Steps

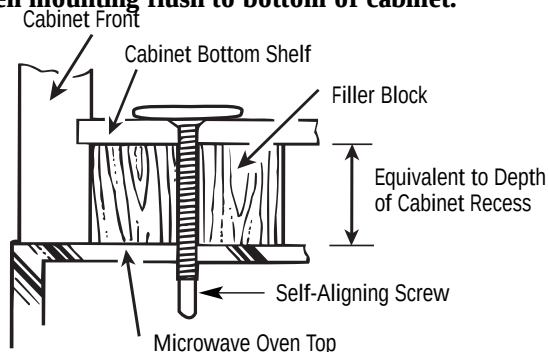
1–3. Do not pinch cord or lift oven by pulling cord.

- 1** Lift microwave, tilt it forward, and hook slots at back bottom edge onto four lower tabs of mounting plate.



- 2** Rotate front of oven up against cabinet bottom.

- 3** Insert a self-aligning screw through top center 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.**

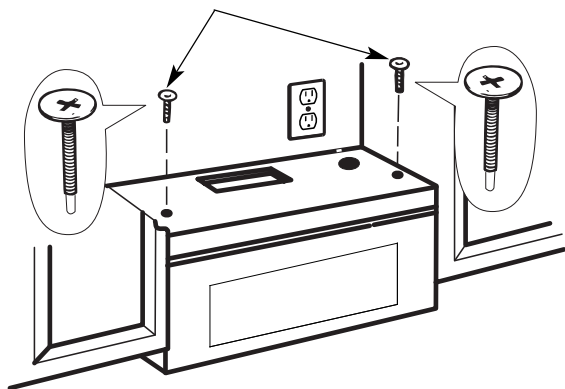


- 4** Attach the microwave oven to the top cabinet.

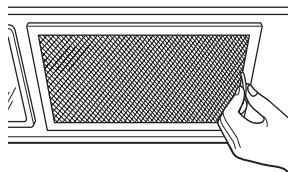
Installation Instructions

C4. MOUNT THE MICROWAVE OVEN (cont.)

- 5** Insert 2 self-aligning screws through outer top cabinet holes. Turn two full turns on each screw.



- 7** 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.)



- 8** Install grease filters. See the Use and Care packed with the microwave.

C5. INSTALLING OR CHANGE THE CHARCOAL FILTER (Some Models)

NOTE: The charcoal filter is factory installed in some models. Refer to the Use and Care to see if yours is factory installed and for replacement information.

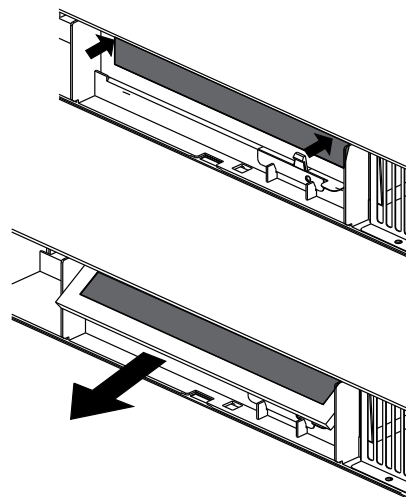
For models without the recirculation filter access door, follow these steps to replace or install a charcoal filter.

- 1** Unplug microwave oven or disconnect power.

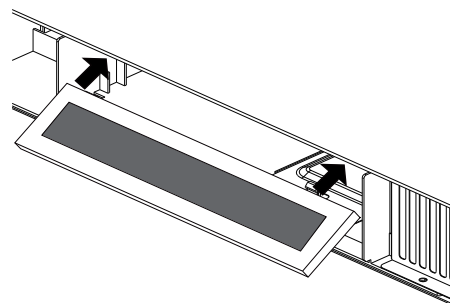
- 2** Open the microwave door and remove the two vent mounting screws located on top of the microwave using a #1 Phillips screwdriver.



- 3** Remove the charcoal filter by pushing the top of the filter inwards, then pull it forward out from the unit.

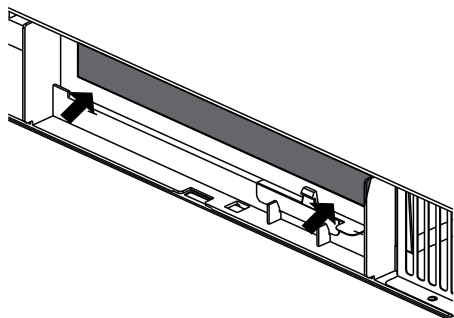


- 4** Slide the top of the new charcoal filter into the top of the filter cavity.

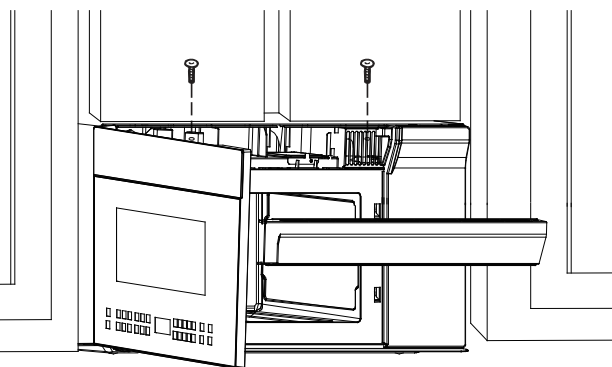


Installation Instructions

- 5** Press the bottom of charcoal filter to place it into the correct position.



- 6** Reinstall the vent by sliding the bottom of the vent into place. Push the vent top into position and slide right into place. Replace the two vent mounting screws located on top of the microwave using a #1 Phillips screwdriver.



- 7** Close the microwave door. Plug in microwave oven or reconnect power.

Installation Instructions

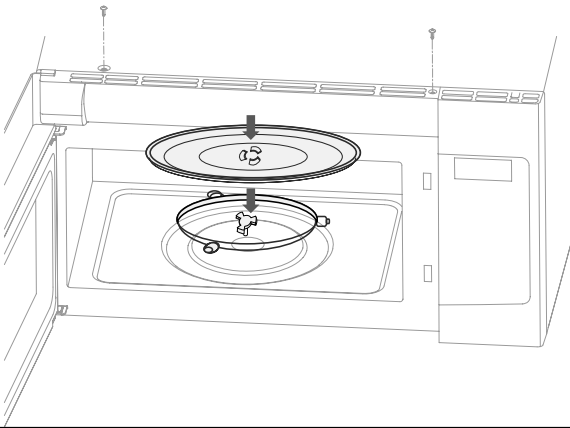
BEFORE YOU USE YOUR MICROWAVE

- 1.** Make sure the microwave oven has been installed according to instructions.

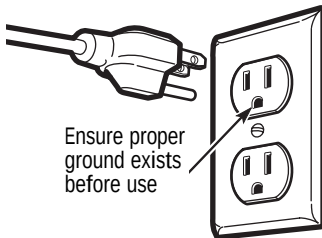


- 2.** Remove all packing material from the microwave oven.

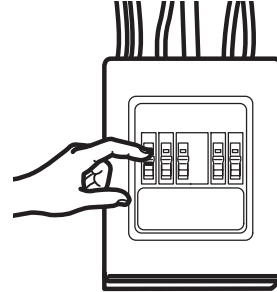
- 3.** Install turntable ring and glass tray in cavity.



- 4.** Plug power cord into a separate and dedicated 15- to 20-amp electrical outlet.



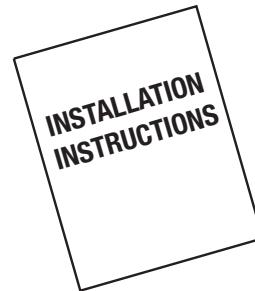
- 5.** Replace house fuse or turn breaker back on.



- 6.** Read the USE & CARE Manual.



- 7.** KEEP INSTALLATION INSTRUCTIONS FOR THE LOCAL INSPECTOR'S USE.



- 8.** FILL OUT PRODUCT REGISTRATION CARD AND SEND IN.



Operational check

- NOTE: IT IS VERY IMPORTANT TO READ AND FOLLOW THE DIRECTIONS IN THE INSTALLATION INSTRUCTIONS BEFORE PROCEEDING WITH THIS REAR WALL TEMPLATE.**

The Rear Wall Template serves to position the bottom mounting plate and to locate the horizontal exhaust outlet.

 1. Use a level to check that the template is positioned accurately.

NOTE: It is important to use at least one wood screw mounted there in a wall to support the weight of the microwave. Mark two additional, evenly spaced locations for the required toggle bolts.

 2. Cut holes in the template according to the dimensions in a wall, drill a 3/16" hole for wood screws. For holes that do not line up with a stud, drill 3/8" holes for toggle bolts.

NOTE: DO NOT INSTALL THE MOUNTING PLATE AT THIS TIME.

 3. Remove the template from the rear wall.
 4. Repeat the installation instruction book for your installation situation.

F. CUT OUT FOR HORIZONTAL OUTSIDE EXHAUST

CUT HOLE THROUGH REAR WALL FOR EXHAUST ADAPTOR

CAUTION - IF EXHAUST ADAPTOR IS PORTIONED OUTSIDE RECOMMENDED DIMENSION, GREASE-LADEN AIR WILL DISCHARGE INTO HOUSE STRUCTURE.

61,0 CM (24") MINIMUM WIDTH REQUIRED

REAR WALL TEMPLATE

Trim the rear wall template along the dotted line.

Locate and mark holes to align with holes in the mounting plate.

IMPORTANT:
LOCATE AT LEAST ONE STUD ON EITHER SIDE OF THE CENTERLINE.
MARK THE LOCATION FOR 2 ADDITIONAL, EVENLY SPACED TOGGLE BOLTS IN THE MOUNTING PLATE AREA.

Locate and mark holes to align with holes in the mounting plate.

IMPORTANT:
LOCATE AT LEAST ONE STUD ON EITHER SIDE OF THE CENTERLINE.
MARK THE LOCATION FOR 2 ADDITIONAL, EVENLY SPACED TOGGLE BOLTS IN THE MOUNTING PLATE AREA.

