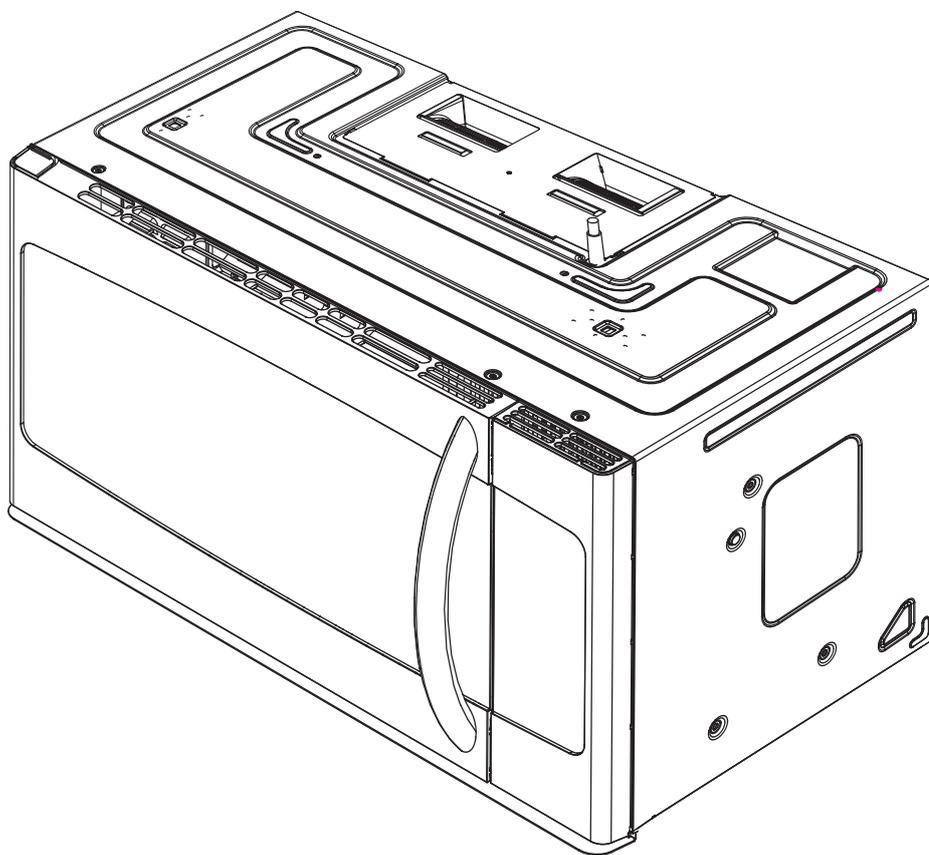


INSIGNIA™

INSTALLATION GUIDE

1.6 Cu. Ft. Over-the-Range Microwave

NS-OTR16SS9 / NS-OTR16WH9



Before using your new product, please read these instructions to prevent any damage.

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Introduction

Congratulations on your purchase of a high-quality Insignia product. Your NS-OTR16SS9 / NS-OTR16WH9 represents the state of the art in microwave design and is designed for reliable and trouble-free performance. This installation guide will show you how to install your new over-the-range microwave.

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.**

IMPORTANT SAFETY INSTRUCTIONS

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

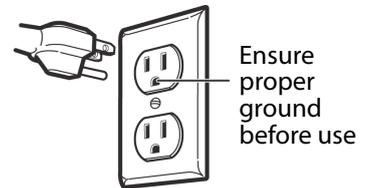
This product requires a three-prong, properly grounded outlet for safe operation. If not properly grounded, or if the outlet box does not meet electrical requirements noted (under [ELECTRICAL REQUIREMENTS](#)), a qualified electrician should be employed to correct any deficiencies.

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 that 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.



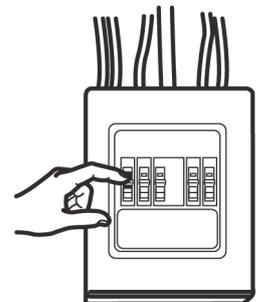
Note: For easier installation and personal safety, we recommend that two people install this product because of the weight. We highly recommend professional installation if any electrical or carpentry work is required.

CAUTION

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

For personal safety, the mounting surface must be capable of supporting the cabinet load, in addition to the added weight of this 54 pound (24 kilogram) product, plus additional oven loads of up to 50 pounds (22 kilograms) for a total weight of 104 pounds (47 kilograms).

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.



ELECTRICAL REQUIREMENTS

The product rating of your microwave is 120 volts AC, 60 Hertz, 14 amps, and 1.5 kilowatts. 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.

Package contents

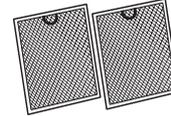
- 1.6 cu. ft. over-the-range microwave
- Turntable (with ring)
- Installation parts (“Parts” on page 4)
- Installation hardware (see “Hardware” on page 4)
- Mounting templates (2)
- *Installation Guide*
- *User Guide*

Parts

Make sure that you have all the parts necessary to install your new microwave.



Mounting plate (Qty. 1)



Grease filters (Qty. 2)

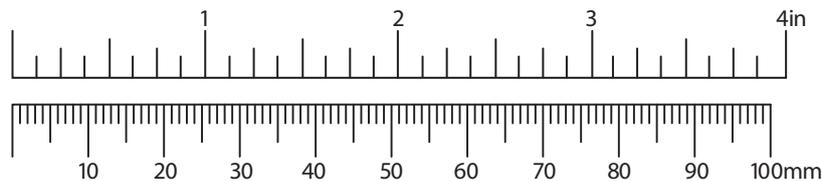


Exhaust adapter (Qty. 1)

Hardware

HARDWARE		QTY.
	Washers	2
	Sheet metal screws	2
	Wood screws (1/4" × 2")	2

HARDWARE		QTY.
	Toggle bolts with wing nuts (3/16" × 3")	2
	Self-aligning machine screws (20-1/4" × 3")	2
	Nylon grommet	1



Before you install

Read these instructions completely before installing your microwave. Make sure that your space meets the mounting requirements and that you've gathered all needed tools and materials.

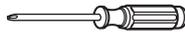
Tools and materials needed



Ducts (if venting outside)
See ["Exhaust requirements" on page 7](#)



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



#1 and #2 Phillips screwdrivers



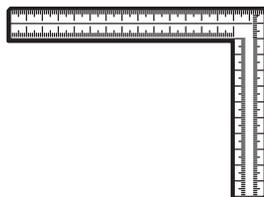
Pencil



Edge-to-edge stud finder



Ruler or tape measure



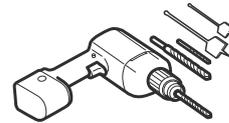
Carpenter square
(optional)



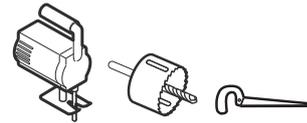
Level



Duct tape



Electric drill with 3/16", 1/2", and 5/8" bits



Saw
(saber, hole, or keyhole)



Tin snips
(to cut damper, if needed)



Scissors
(to cut template, if needed)



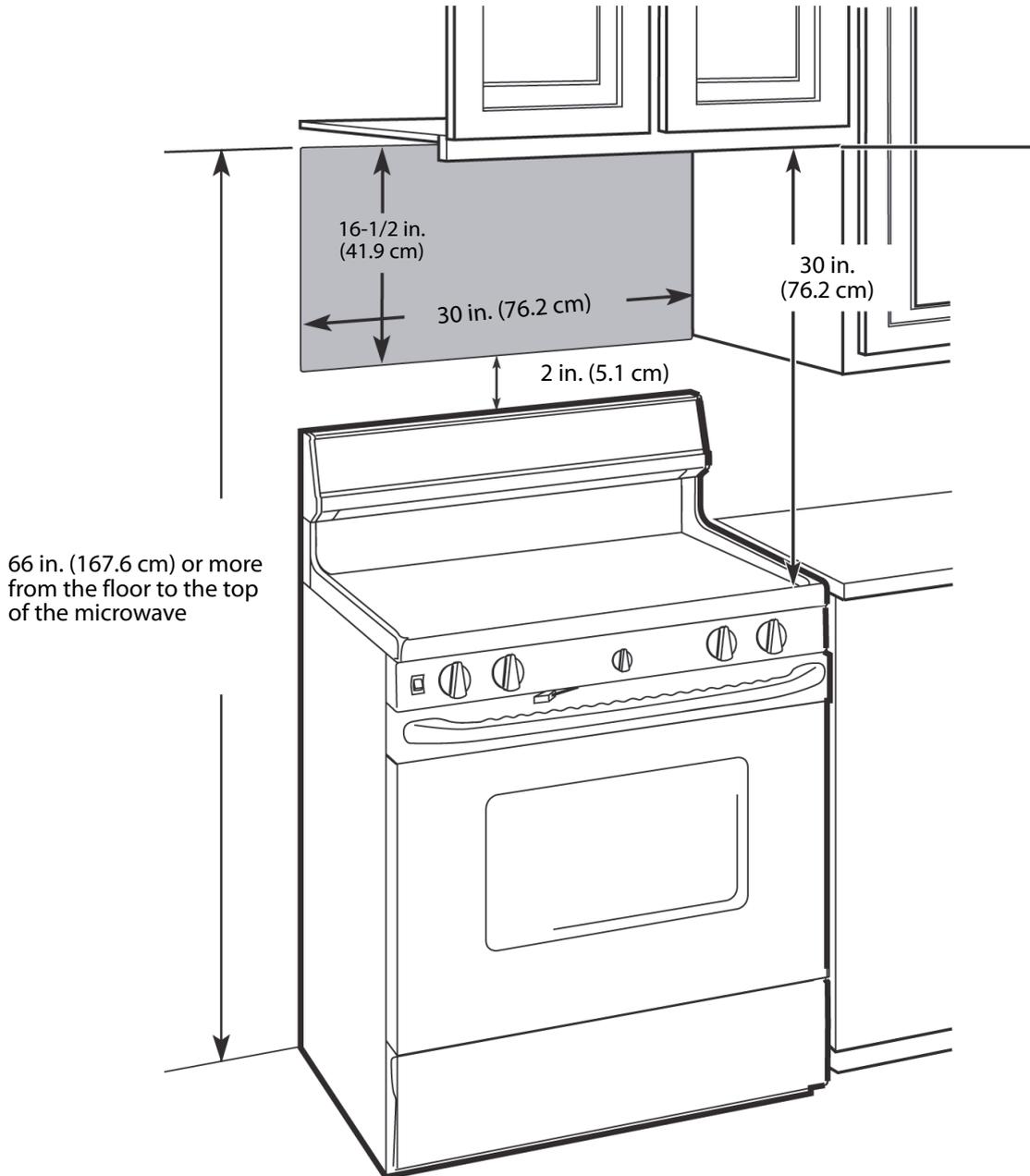
Gloves



Safety goggles

Mounting requirements

- The space between the cabinets must be 30 in. (76.2 cm) wide. If the space between the cabinets is more than 30 in. (76.2 cm), you'll need filler material to fill the gap between the microwave and cabinets.
- This microwave is for installation over ranges up to 36 in. (91.4 cm) wide.
- If installing the microwave beneath smooth, flat cabinets, make sure that you leave enough space for the power cord clearance.
- If you are going to vent your exhaust to the outside, see ["Exhaust requirements" on page 7](#) for exhaust duct preparation.



Exhaust requirements

Use this section if you plan to vent your microwave outside (top or back exhaust). If you plan to recirculate the air back into the room, skip to [“Removing your microwave” on page 9](#).

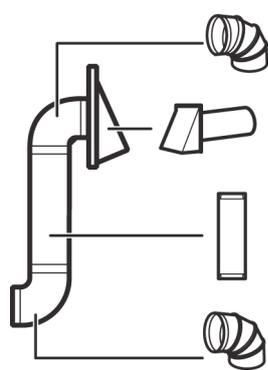
When installing exhaust vents:

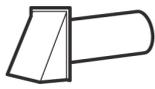
- Use the most direct route with as few elbows/transitions as possible. This helps prevent blockages and ensures that the exhaust is being vented correctly.
- Your microwave is designed to mate with a standard 3-1/4" x 10" rectangular duct. If a round duct is required, a rectangular-to-round transition adapter must be used. Do not use a duct with a diameter less than 6".

Note: If a rectangular-to-round transition adapter is used, you must cut the bottom corners of the damper with tin snips to let the damper have free movement.

- Elbows, transitions, and wall/roof caps add resistance to airflow. Each of these pieces are equivalent to a section of straight duct that is longer than their actual physical size. When calculating your duct length, add the equivalent lengths of all the pieces together. For proper airflow, the equivalent airflow should not exceed 140 ft. For example:

Example setup:



Duct Pieces	Equivalent Length	×	Number Used	=	Total Equivalent Length
 Roof cap	40 ft.	×	(1)	=	40 ft.
 90° elbow	10 ft.	×	(2)	=	20 ft.
 Straight duct 6" round OR 3-1/4" x 10" rectangular	3 ft.	×	(1)	=	3 ft.
Total ductwork =					63 ft.

↑
For proper airflow, this number should not exceed 140 ft.

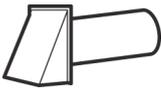
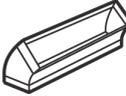
Use the [“Equivalent duct length table” on page 8](#) to calculate the equivalent ductwork length for your setup.

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

Equivalent duct length table

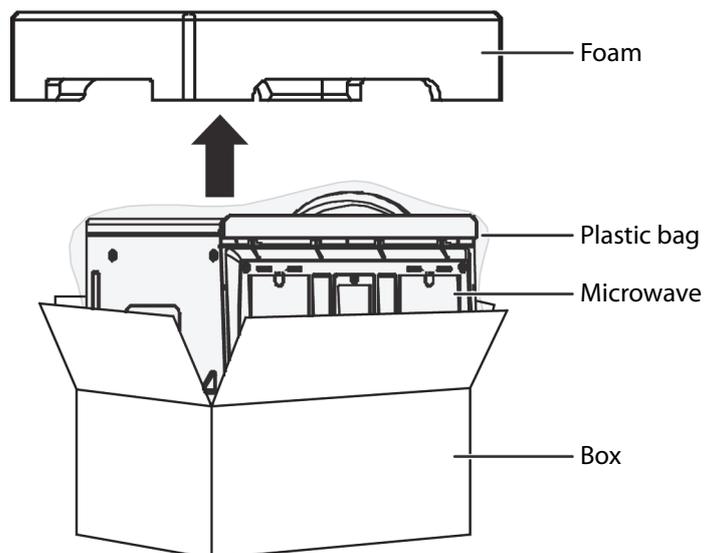
To calculate your equivalent duct length:

- 1 Write the number of sections used for each of the duct pieces.
- 2 Multiply the number used by the equivalent length for each duct piece.
- 3 Add the total equivalent lengths together. This number must be less than 140 ft.

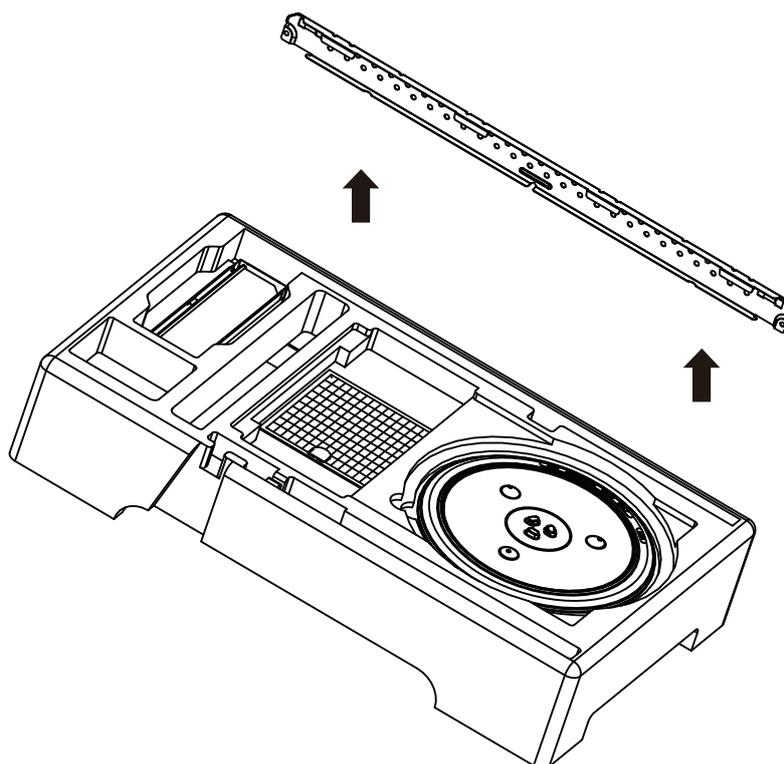
Duct Pieces	Equivalent Length	×	Number Used	=	Total Equivalent Length
 Rectangular-to-round transition adapter	5 ft.	×	()	=	ft.
 Wall cap	40 ft.	×	()	=	ft.
 90° elbow	10 ft.	×	()	=	ft.
 45° elbow	5 ft.	×	()	=	ft.
 90° elbow	25 ft.	×	()	=	ft.
 45° elbow	5 ft.	×	()	=	ft.
 Roof cap	24 ft.	×	()	=	ft.
 Straight duct 6" round OR 3-1/4" × 10" rectangular	1 ft.	×	()	=	ft.
Total ductwork =					ft. (For proper airflow, this number should not exceed 140 ft.)

Removing your microwave

- 1 Remove the upper foam from the box. Keep all the accessories.
- 2 Pull the microwave out of the box.
- 3 Remove and throw away the plastic bags.



- 4 Remove the mounting plate from the upper foam.



Installing your microwave

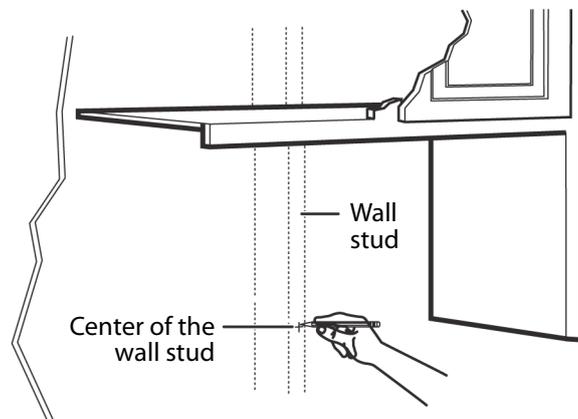
Step 1: Find the wall studs

WARNING: Your microwave must be connected to at least one wall stud.

- 1 Using an edge-to-edge stud finder, locate the edges of the wall stud(s) within the opening.

WARNING: The center of any adjacent wall studs should be 16" or 24" from this mark.

- 2 Mark the center of each stud, and then draw a vertical line down the center of each stud.



You'll need:



Edge-to-edge stud finder



Ruler or tape measure

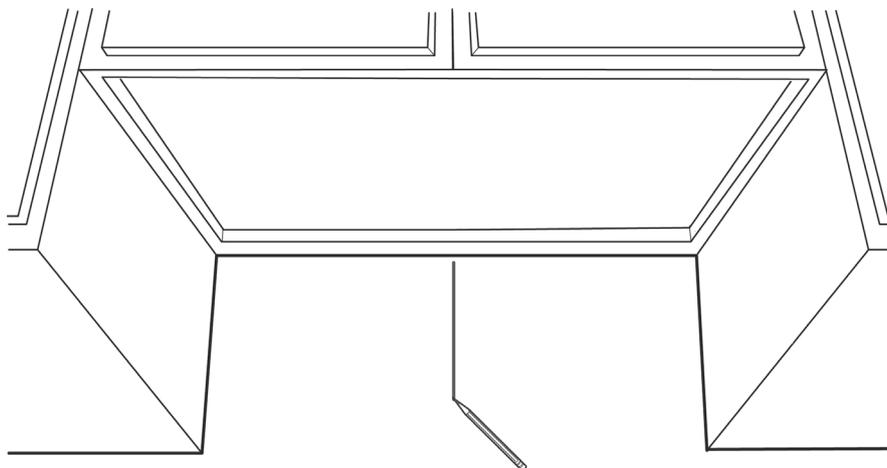


Pencil

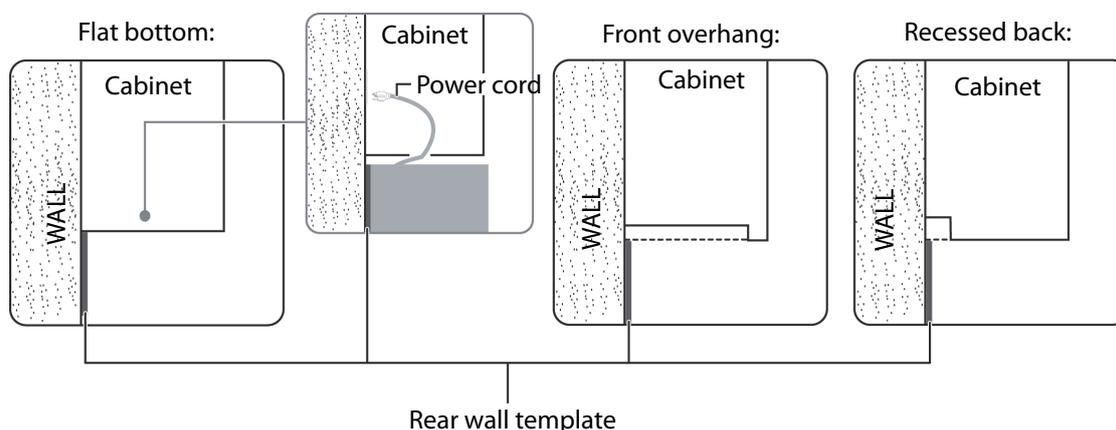
Step 2: Align the rear wall template

Note: If the rear wall template is damaged or unusable, measure and mark the wall with the dimensions at the end of this step.

- 1 Use a level to make sure that the bottom of the cabinet is level.
- 2 Draw a vertical line down the center of the wall in the mounting space. This is where the center of your template will be.



- 3 Draw a horizontal line at the height of the front of your cabinet. This is where the top of your template will be. If the bottom of your cabinet is flat, make sure that you leave space for the power cord.

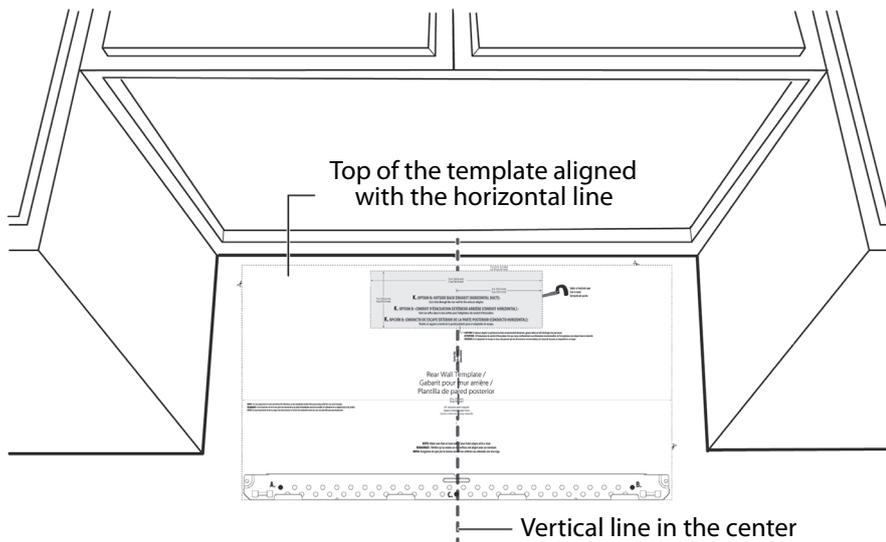


Notes:

- If installing the microwave beneath smooth, flat cabinets, make sure that you leave enough space for the power cord clearance.
- If cabinets have decorative trim that interferes with the microwave installation, remove the trim to install the microwave properly and to make sure that it is level.

- 4 Trim the rear wall template along the dotted line.

5 Tape the template in place so that it is centered on the vertical line and the top edge is aligned with the horizontal line.



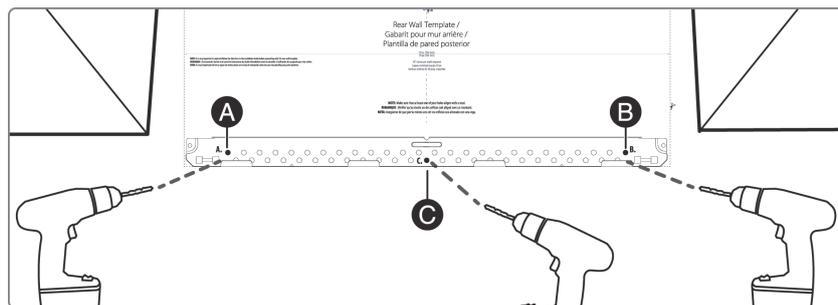
6 Mark points **A** and **B** on the wall with a pencil.

7 If the stud is on the center line, mark point **C** on the wall with a pencil.

OR

If the stud is not on the center line, mark two holes on either side of point **C** that align with the studs.

8 Drill holes through the template at points you marked. If the hole lines up with a stud, drill a 3/16" hole. Otherwise, drill a 5/8" hole for the toggle bolts.



Note: Depending on your stud locations, your installation may look different. You should mount to at least one stud.

Note: At least three holes must be used for mounting.

You'll need:



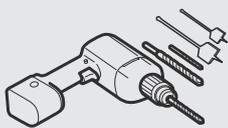
Ruler or tape measure



Level



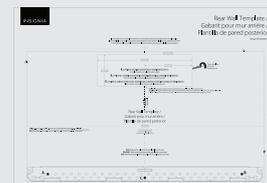
Pencil



Electric drill with 3/16" and 5/8" bits



Duct tape



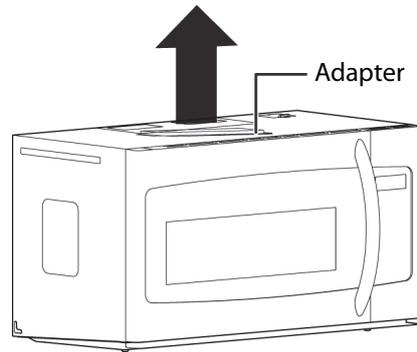
Rear wall template

Step 3: Select a ventilation type

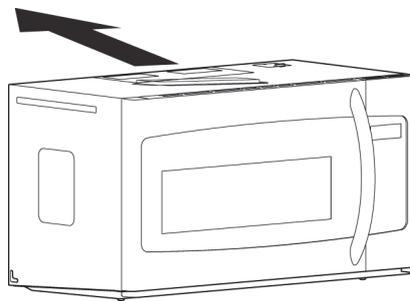
This microwave is designed for three types of ventilation. Select the type of ventilation you want to use, then go to the corresponding page.

Note: This microwave is shipped assembled for top exhaust ventilation.

Option A - Outside top exhaust (vertical duct): See page 14

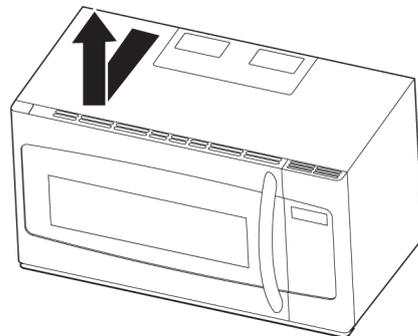


Option B - Outside back exhaust (horizontal duct): See page 22



Note: If a wall stud is within 6 in. (15.2 cm) of the vertical center line, you cannot use this installation option.

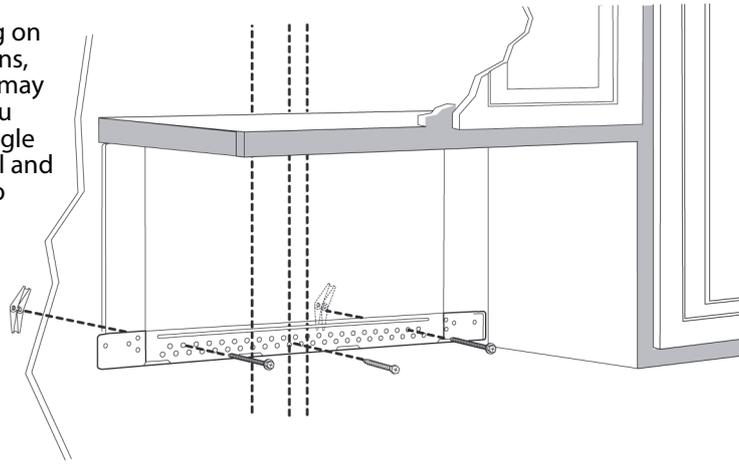
Option C - Recirculating (non-vented/ductless): See page 32



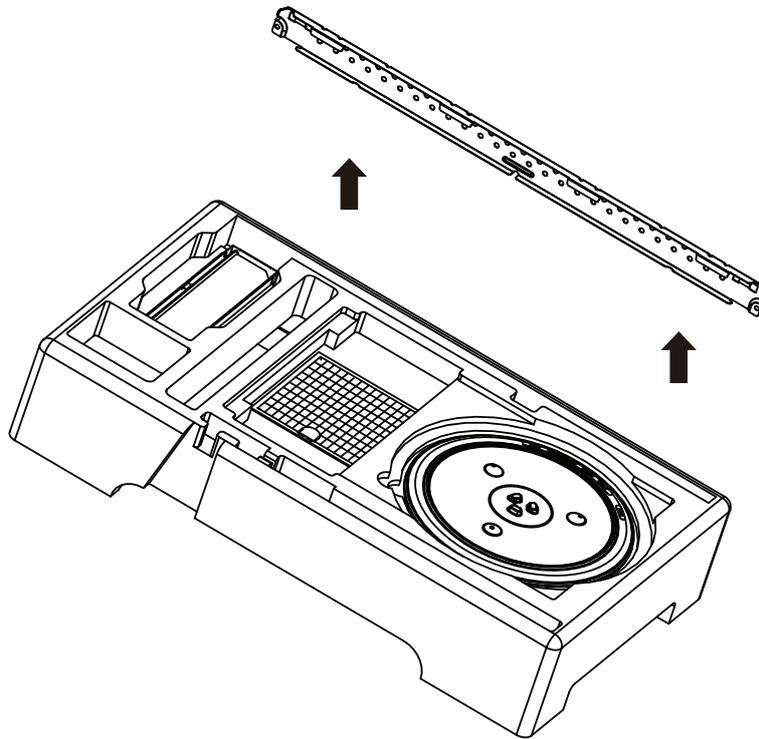
*Requires a charcoal filter (included)

Step 4: Option A - Attach the mounting plate to the wall

Note: Depending on your stud locations, your installation may look different. You should insert toggle bolts into drywall and wood screws into studs.

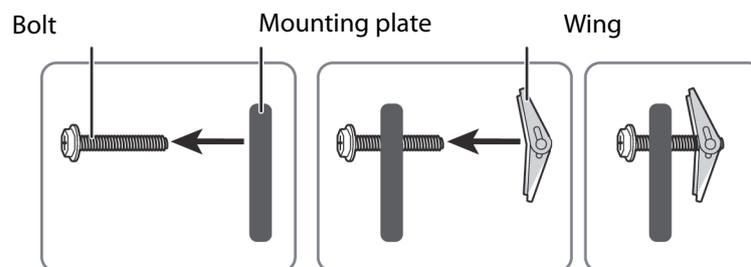


- 1 Remove the rear wall template.
- 2 Remove the mounting plate from the upper foam.



- 3 Insert the toggle bolt(s) through the front of the mounting plate into the hole(s) that are not going into a stud, and then attach the toggle wings $\frac{3}{4}$ " onto each bolt. Hold your mounting plate up to holes in your wall to identify the correct position.

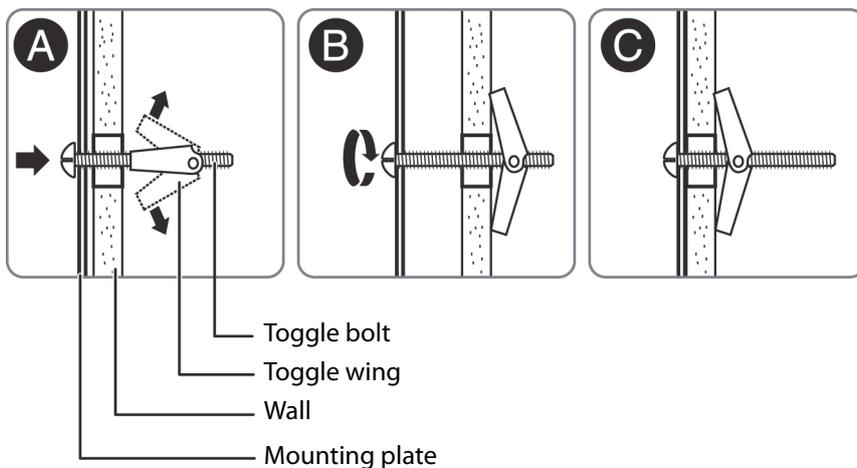
Note: The top of the mounting plate is indicated with an arrow. The mounting plate's hooks are on the front.



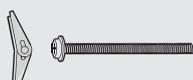
- 4 Place the mounting plate against the wall and insert the toggle wings into the holes you drilled in the drywall. Pull the mounting plate away from the wall to help tighten the toggle wings.

- 5 Insert wood screw(s) through the mounting plate and into the hole(s) drilled in the stud(s), then tighten both the wood screw(s) and toggle bolt(s) with a Phillips screwdriver to mount the plate. Make sure that the plate is centered before tightening fully.

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



You'll need:



Toggle bolts



Wood screws



Phillips screwdrivers



Mounting plate (Qty. 1)

Step 5: Option A - Preparing the top cabinet

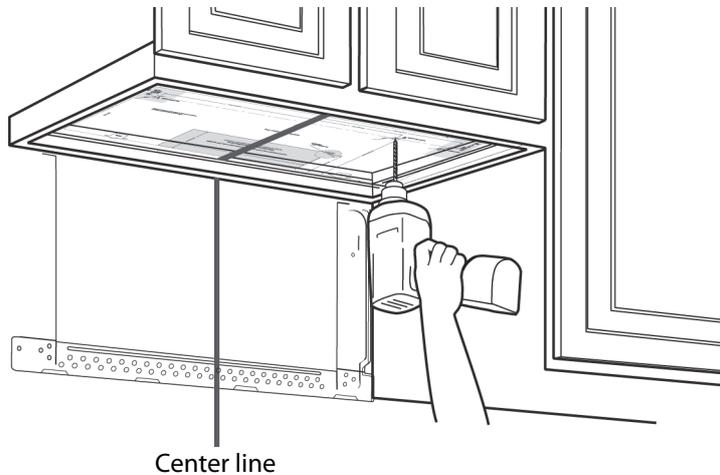
You need to drill holes for the top support screws, a hole large enough for the power cord to fit through, and a cutout large enough for the exhaust adapter.

- 1 Turn off the power to the outlet in the cabinet.
- 2 Remove everything from the cabinet.
- 3 Trim the *Top Cabinet Template* along the dotted line.
- 4 If the bottom of your cabinet is recessed and the template is too large, trim the edges to fit. Your template should fit snugly inside the space with no overhang.

Notes:

- Make sure that you keep the left and right sides even. For example, if you need to trim the sides by 1", cut 1/2" from the left side and 1/2" from the right side.
- Some cabinets have a small bracket or glue block between the overhang and the underside of the cabinet bottom. Cut the template to fit around these so it lies flat on the bottom of the cabinet.

- 5 To position the *Top Cabinet Template*:
 - Align the center line on the template with the center line that you drew on the wall.
 - Align the back edge of the template to the rear wall (smooth or flat bottom cabinets) or to the back of the recess (recessed cabinets) to make sure that the holes cut into the upper cabinet align with the holes in the top of the microwave.



Center line

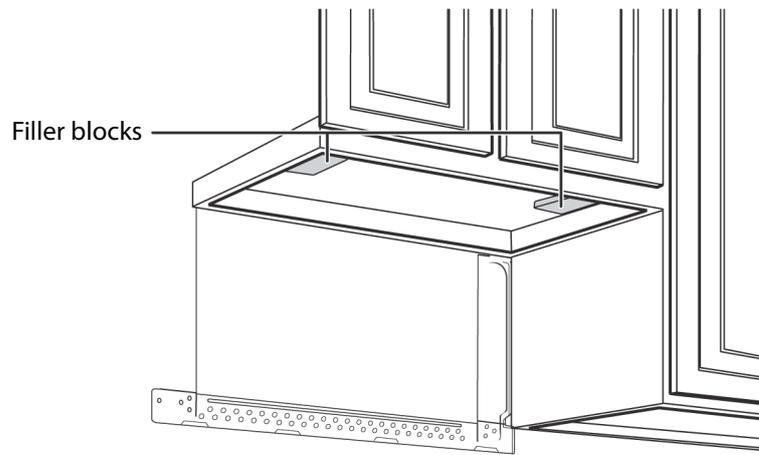
- 6 Tape the template to the bottom of the cabinet.
- 7 Drill 1/2" holes through the template at points **D** and **E**.

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

- 8 Cut a 2" diameter hole at point **F** for the power cord.
- 9 Cut out the shaded area **I** through the cabinet bottom.
- 10 Remove the template.

11 If you have recessed cabinets:

- Make two filler blocks out of scrap wood pieces the size of shaded areas **G** and **H**. They must be as thick as the depth of the cabinet recess.
- Drill 5/8" holes in the filler blocks to align with points **D** and **E**.
- Align the blocks with the corresponding holes in the cabinet. They should be at the same level as the bottom edge of the cabinet frame.



You'll need:



Electric drill with 1/2" and 5/8" bits



Duct tape



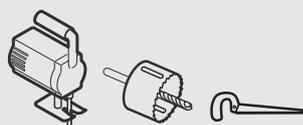
Scissors
(recessed cabinets only)



Safety goggles



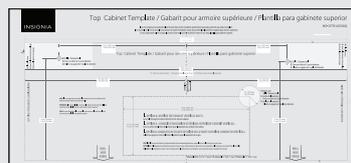
Ruler or tape measure



Saw
(saber, hole, or keyhole)



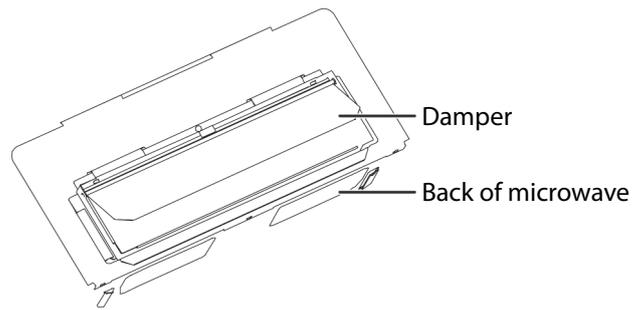
Filler blocks or scrap wood pieces
(for recessed cabinets only)



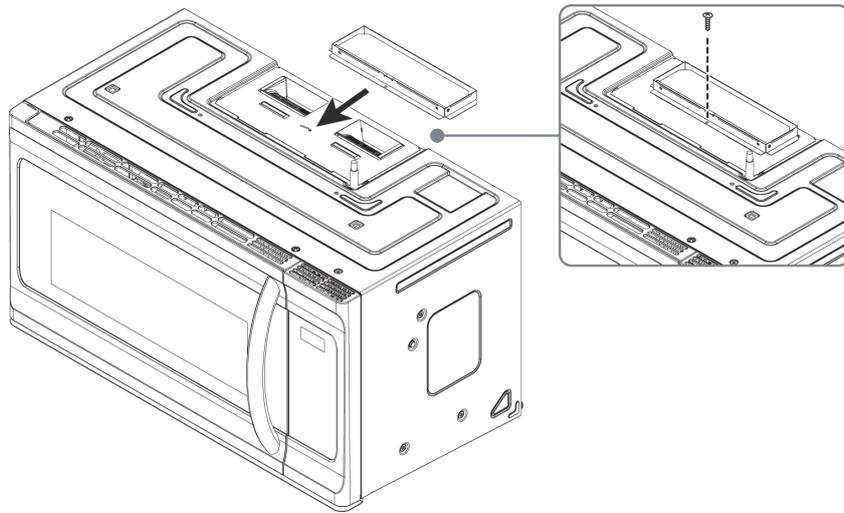
Top Cabinet Template

Step 6: Option A - Insert the exhaust adapter

- 1 Set the microwave in its upright position, with the top facing up.
- 2 Remove any tape securing the damper and make sure that the damper pivots easily.



- 3 Insert the exhaust adapter into the slots next to the ventilation and secure with a sheet metal screw.



You'll need:



Exhaust adapter



Sheet metal screw

Step 7: Option A - Mount the microwave

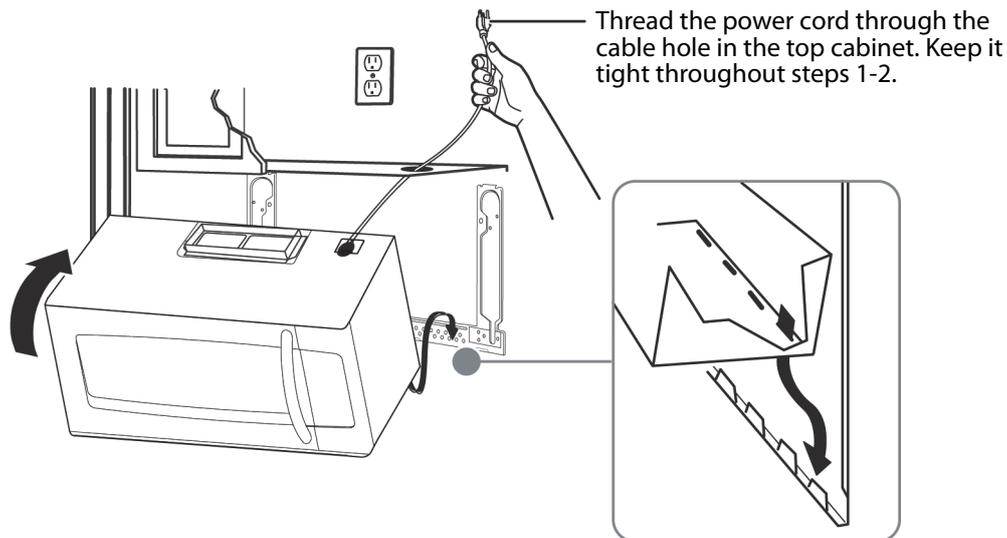
CAUTIONS:

- For easier installation and personal safety, we recommend that two people install this product because of the weight. We highly recommend professional installation if any electrical or carpentry work is required.
- Do not grip or use the handle during installation.
- To keep the power cord tight while mounting the microwave oven, thread the power cord through the hole in the bottom of the cabinet.

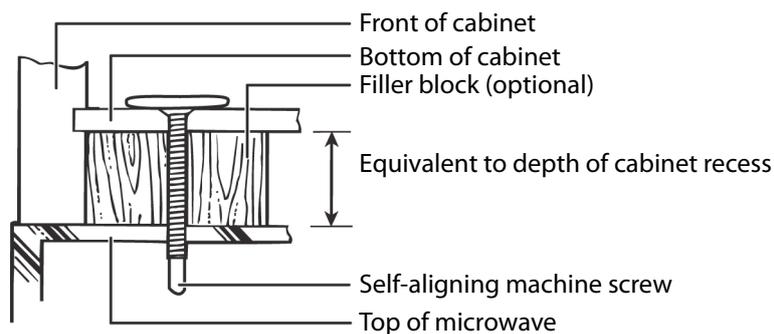
- 1 If your cabinet is metal, insert the nylon grommet into the power cord hole to prevent cutting the cord.
- 2 Lift the microwave, tilt it forward, and hook the slots on the back bottom edge onto the four lower tabs of the mounting plate. Rotate the front of the microwave up against the bottom of the cabinet.

Notes:

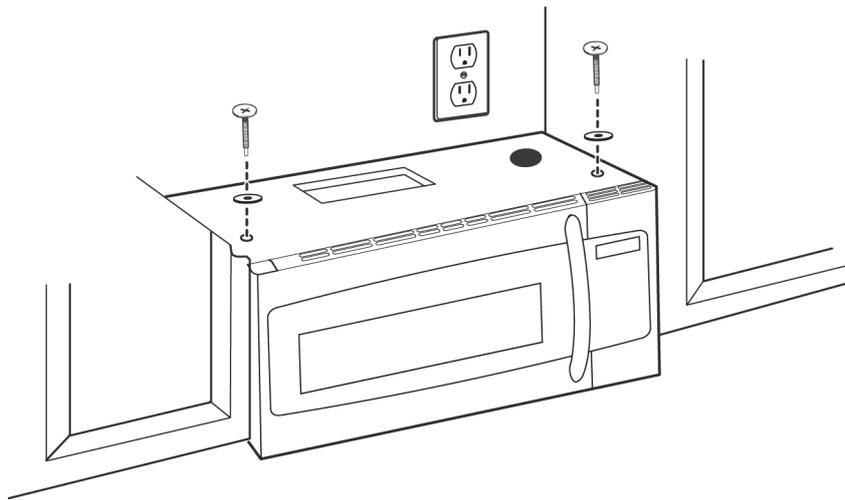
- We recommend using filler blocks if the front of the cabinet hangs below the cabinet's bottom shelf.
- If filler blocks are not used, damage may occur from over-tightening the screws.
- Be sure to keep the power cord tight.
- Do not pinch the cord, especially when mounting flush to the bottom of the cabinet.



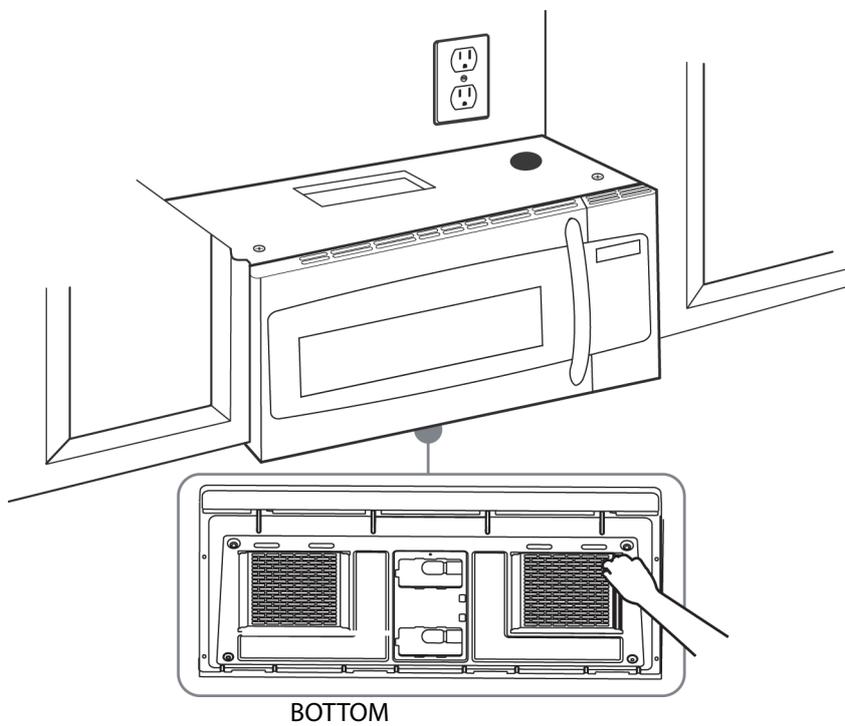
- 3 To attach the microwave oven to the top cabinet, insert two self-aligning machine screws through the holes you drilled in the bottom of the cabinet. Turn each screw at least two full turns (they will be fully tightened later).



4 While holding the microwave up against the wall and cabinet fully tighten the outer two screws.



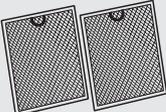
5 Fit the two grease filters into the openings underneath your microwave.



You'll need:


Nylon grommet
(for metal cabinets)

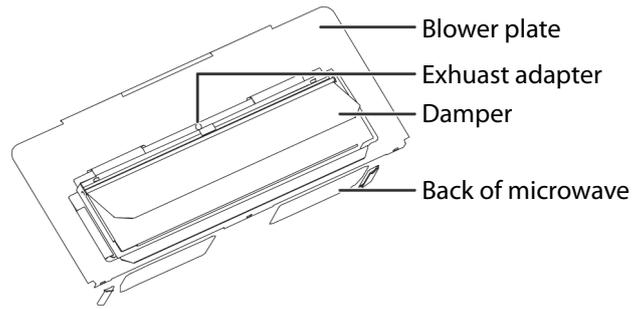

Self-aligning machine
screws


Grease filters

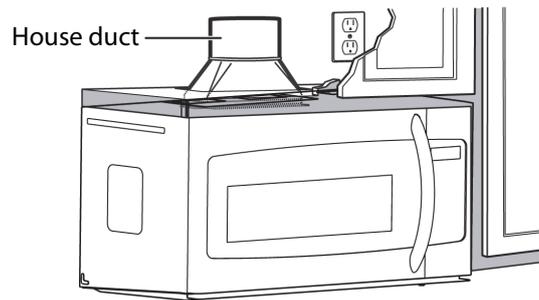

Phillips screwdrivers

Step 8: Option A - Connecting ductwork

- 1 Open the cabinet and slide the exhaust adapter front-to-back or side-to-side to adjust.



- 2 Extend the house duct down to connect to the exhaust adapter.
- 3 Seal the exhaust duct joints with duct tape.



- 4 You're finished! Skip to "Before using your microwave" on page 41.

You'll need:

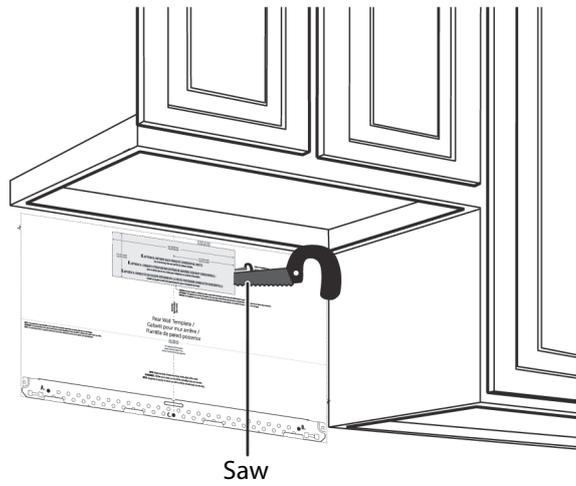


Duct tape

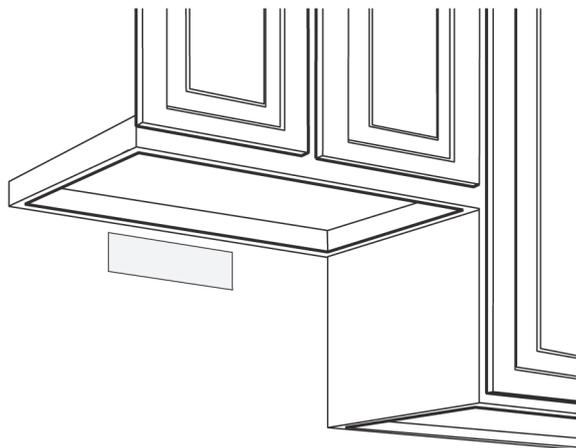
Step 4: Option B - Cutting a vent opening

- 1 Use a saber or keyhole saw to cut out the shaded area **K** through the rear wall.

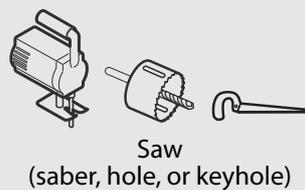
Note: If a wall stud is within 6 in. (15.2 cm) of the vertical center line, you cannot use this installation option.



- 2 Remove the rear wall template.

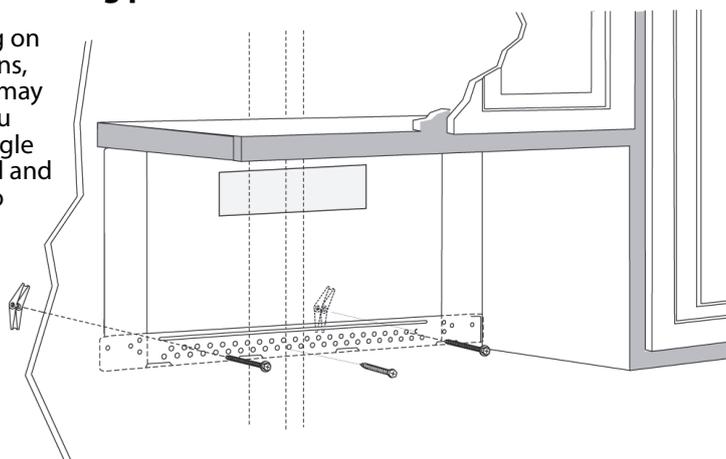


You'll need:

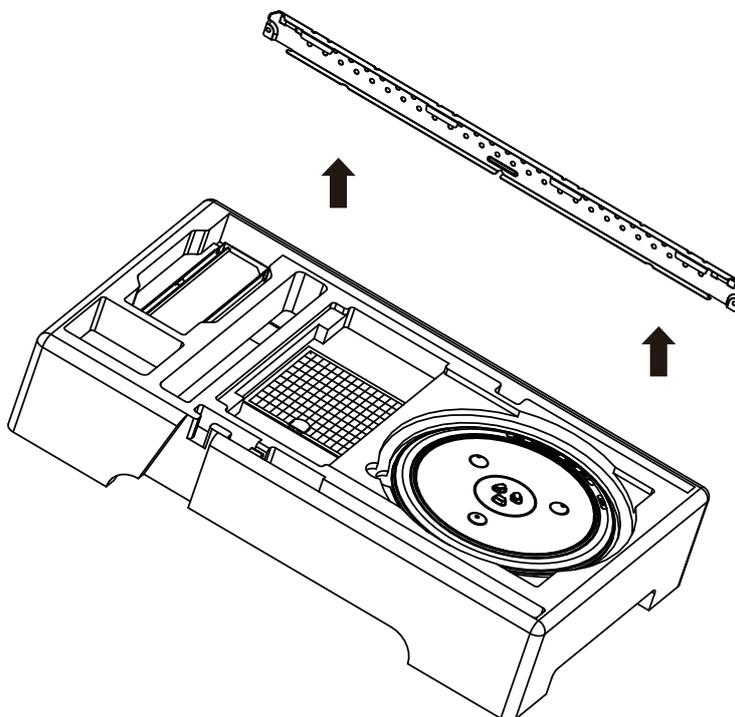


Step 5: Option B - Attach the mounting plate to the wall

Note: Depending on your stud locations, your installation may look different. You should insert toggle bolts into drywall and wood screws into studs.

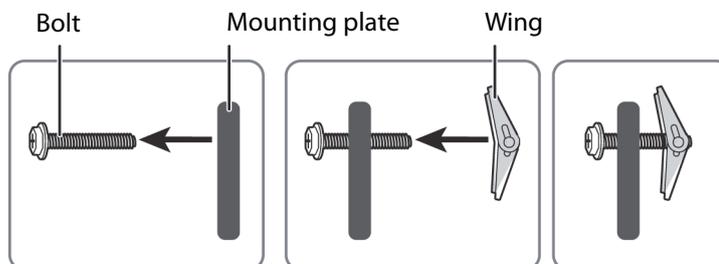


- 1 Remove the rear wall template.
- 2 Remove the mounting plate from the upper foam.



- 3 Insert the bolt(s) through the front of the mounting plate into the hole(s) that are not going into a stud, and then reattach the toggle wings $\frac{3}{4}$ " onto each bolt. Hold your mounting plate up to holes in your wall to identify the correct position.

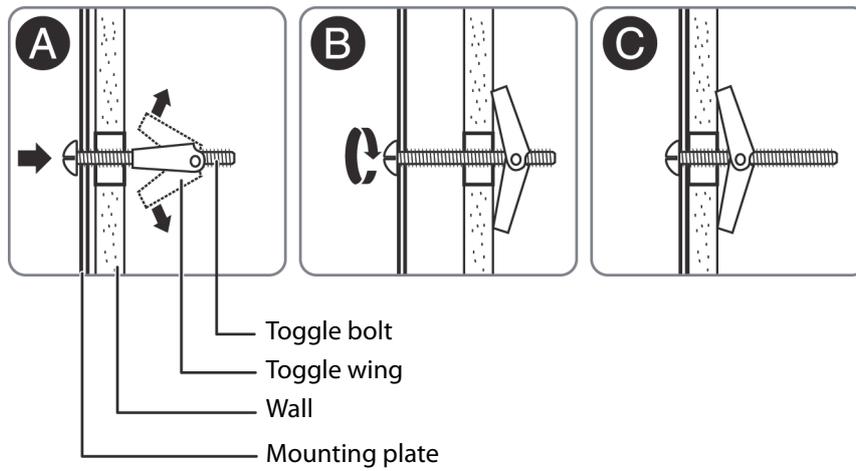
Note: The top of the mounting plate is indicated with an arrow. The mounting plate's hooks are on the front.



- 4 Place the mounting plate against the wall and insert the toggle wings into the holes you drilled in the drywall. Pull the mounting plate away from the wall to help tighten the toggle wings.

- 5 Insert wood screw(s) through the mounting plate and into the hole(s) drilled in the stud(s), then tighten both the wood screw(s) and toggle bolt(s) with a Phillips screwdriver to mount the plate. Make sure that the plate is centered before tightening fully.

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



You'll need:



Step 6: Option B - Preparing the top cabinet

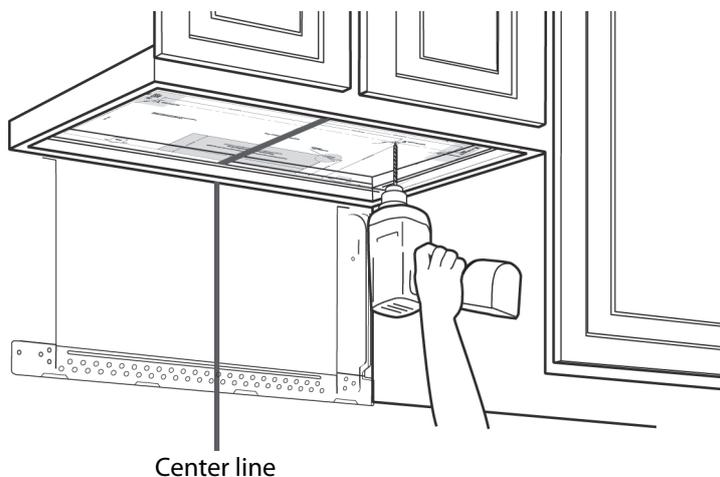
You need to drill holes for the top support screws and a hole large enough for the power cord to fit through.

- 1 Turn off the power to the outlet in the cabinet.
- 2 Remove everything from the cabinet.
- 3 Trim the *Top Cabinet Template* along the dotted line.
- 4 If the bottom of your cabinet is recessed and the template is too large, trim the edges to fit. Your template should fit snugly inside the space with no overhang.

Notes:

- Make sure that you keep the left and right sides even. For example, if you need to trim the sides by 1", cut 1/2" from the left side and 1/2" from the right side.
- Some cabinets have a small bracket or glue block between the overhang and the underside of the cabinet bottom. Cut the template to fit around these so it lies flat on the bottom of the cabinet.

- 5 To position the *Top Cabinet Template*:
 - Align the center line on the template with the center line that you drew on the wall.
 - Align the back edge of the template to the rear wall (smooth or flat bottom cabinets) or to the back of the recess (recessed cabinets) to make sure that the holes cut into the upper cabinet align with the holes in the top of the microwave.



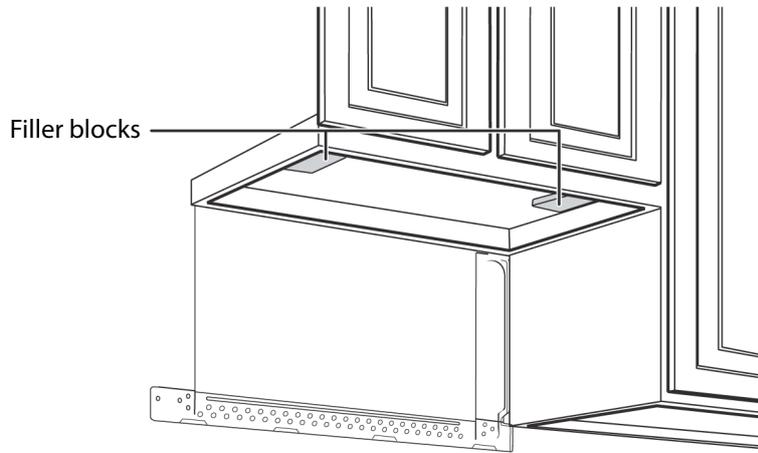
- 6 Tape the template to the bottom of the cabinet.
- 7 Drill 1/2" holes through the template at points **D** and **E**.

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

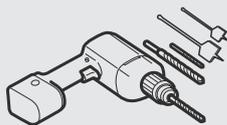
- 8 Cut a 2" diameter hole at point **F** for the power cord.
- 9 Remove the template.

10 If you have recessed cabinets:

- Make two filler blocks out of scrap wood pieces the size of shaded areas **G** and **H**. They must be as thick as the depth of the cabinet recess.
- Drill 5/8" holes in the filler blocks to align with points **D** and **E**.
- Align the blocks with the corresponding holes in the cabinet. They should be at the same level as the bottom edge of the cabinet frame.



You'll need:



Electric drill with 1/2" and 5/8" bits



Duct tape



Scissors
(recessed cabinets only)



Safety goggles



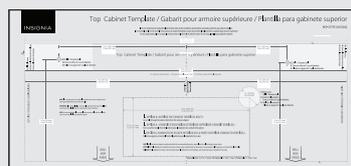
Ruler or tape measure



Saw
(saber, hole, or keyhole)



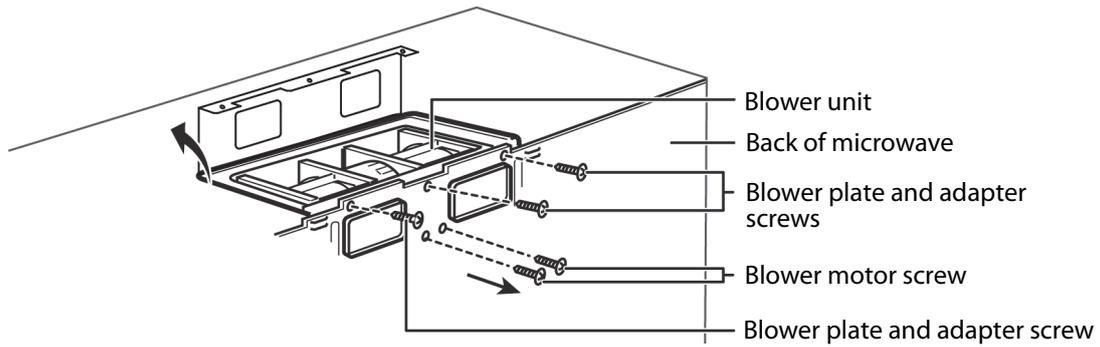
Filler blocks or scrap wood pieces
(for recessed cabinets only)



Top Cabinet Template

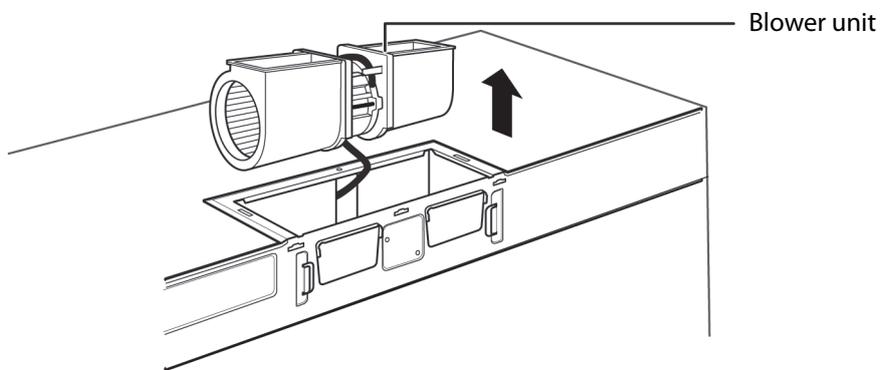
Step 7: Option B - Adapt the microwave blower for outside back exhaust

- 1 Remove and save the five screws that hold the blower unit in the microwave.

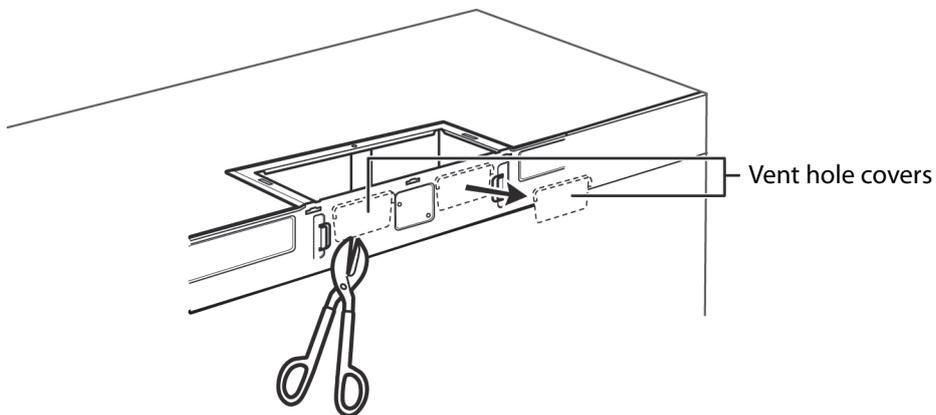


- 2 Carefully pull out the blower unit. The wires will extend far enough to let you adjust the blower unit. Do not disconnect the wires.

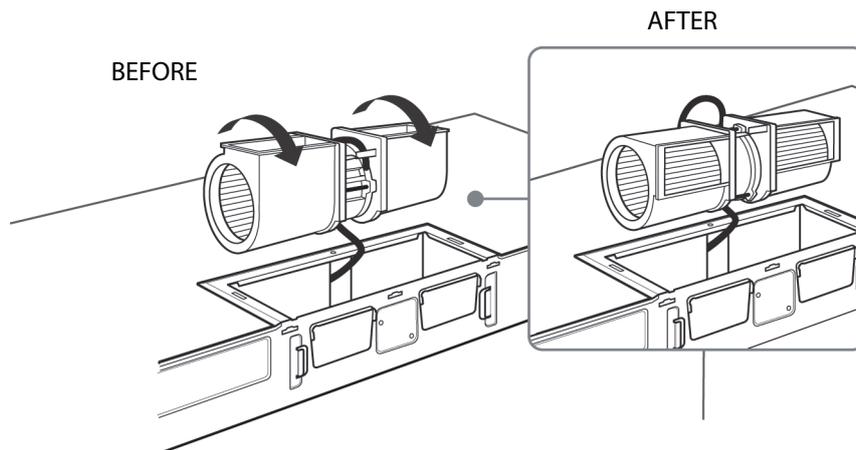
WARNING: Do not pull or stretch the blower unit wiring. Make sure that the wires are not pinched.



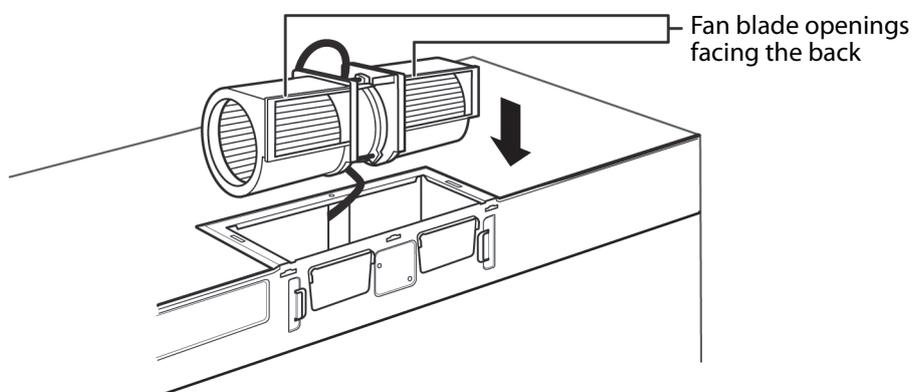
- 3 Cut out the vent holes with tin snips.



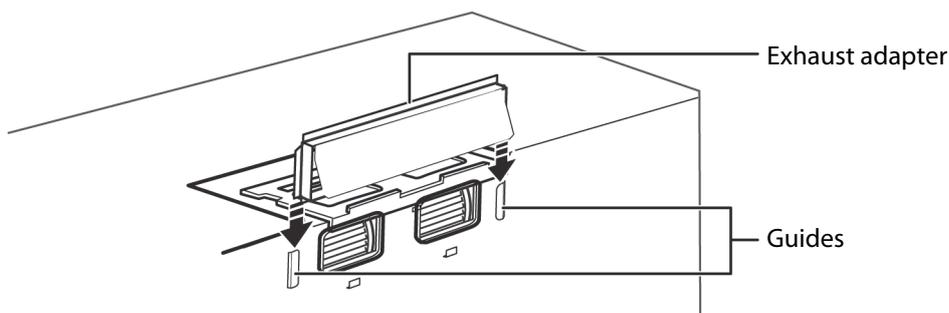
- 4 Turn the blower unit 180° so that the fan blade openings are facing out the back of the microwave.



- 5 Place the blower unit back into the opening. The blower unit exhaust openings should match the exhaust openings on back of the microwave.

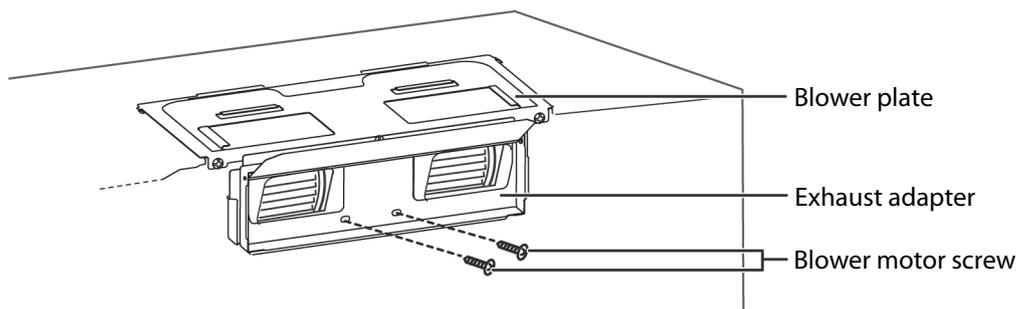


- 6 Slide the exhaust adapter into the guides on the back of the microwave and push in until it is aligned with the blower motor screw holes, then secure with the blower motor screws.

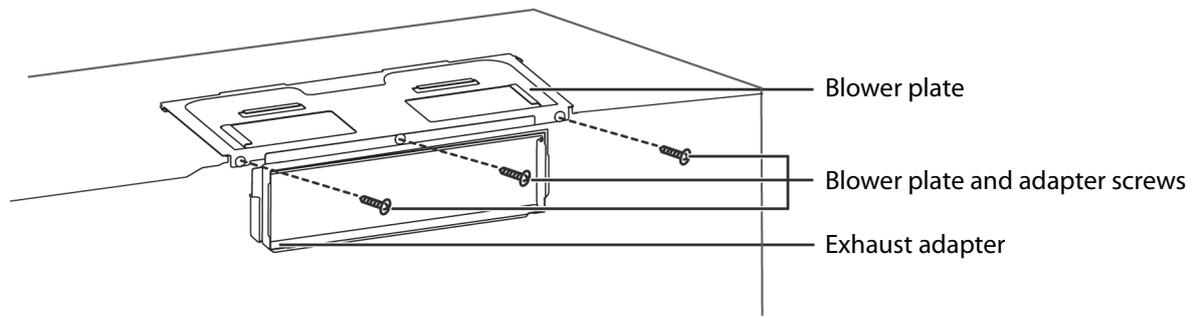


- 7 Secure the blower unit in the microwave with two of the screws you previously removed.

Note: Make sure that the damper hinge is at the top and that it can swing freely.



8 Secure the blower plate and exhaust adapter with the remaining screws you removed previously.



You'll need:



Phillips screwdrivers



Tin snips

Step 8: Option B - Mount the microwave

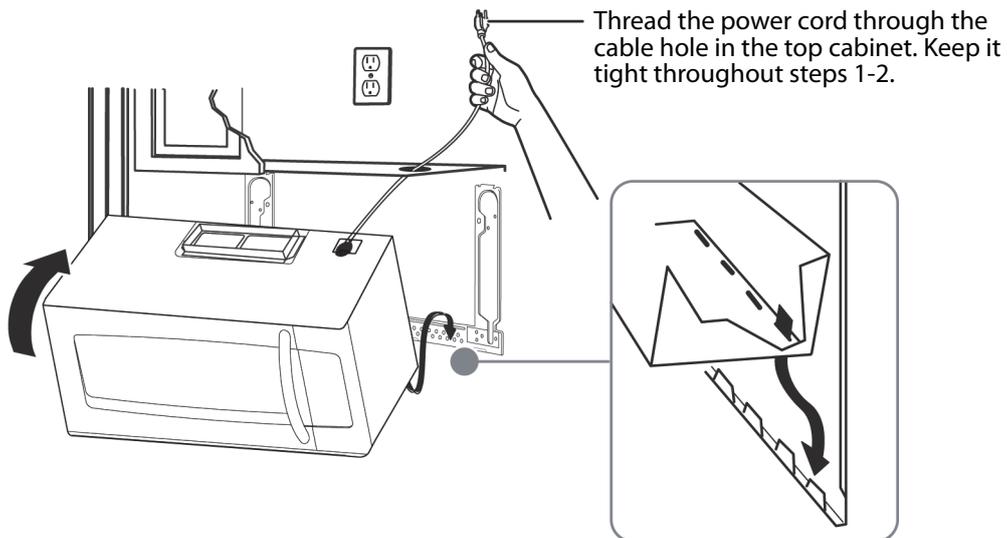
CAUTIONS:

- For easier installation and personal safety, we recommend that two people install this product because of the weight. We highly recommend professional installation if any electrical or carpentry work is required.
- Do not grip or use the handle during installation.
- To keep the power cord tight while mounting the microwave oven, thread the power cord through the hole in the bottom of the top cabinet.

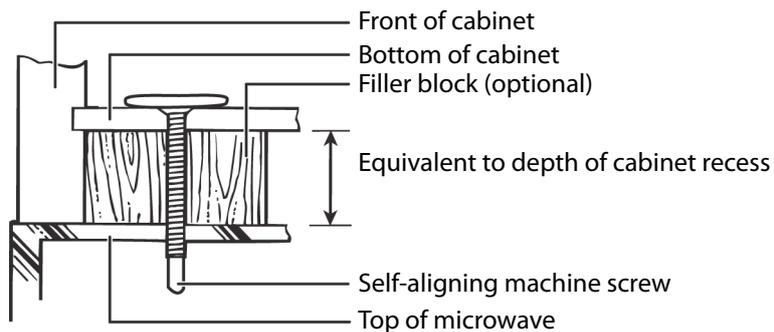
- 1 If your cabinet is metal, insert the nylon grommet into the power cord hole to prevent cutting the cord.
- 2 Lift the microwave, tilt it forward, and hook the slots on the back bottom edge onto the four lower tabs of the mounting plate. Rotate the front of the microwave up against the bottom of the cabinet.

Notes:

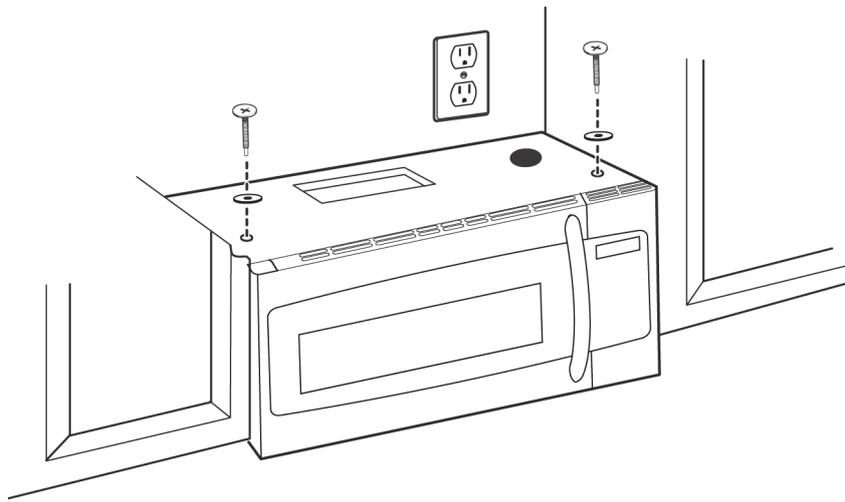
- We recommend using filler blocks if the front of the cabinet hangs below the cabinet's bottom shelf.
- If filler blocks are not used, damage may occur from over-tightening the screws.
- Be sure to keep the power cord tight.
- Do not pinch the cord, especially when mounting flush to the bottom of the cabinet.



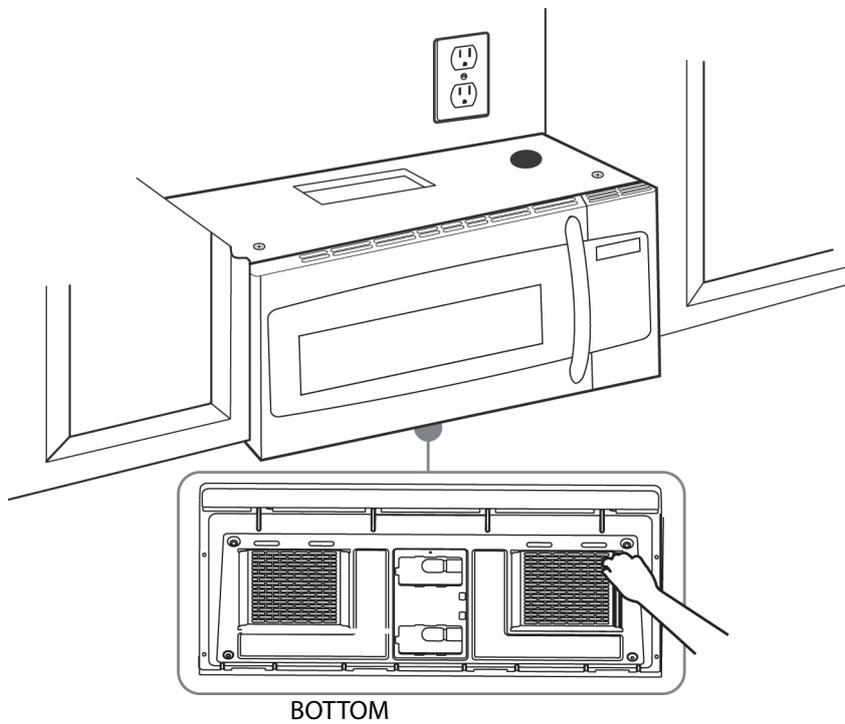
- 3 To attach the microwave oven to the top cabinet, insert two self-aligning machine screws through the holes you drilled in the bottom of the cabinet. Turn each screw at least two full turns (they will be fully tightened later).



4 While holding the microwave up against the wall and cabinet fully tighten the outer two screws.



5 Fit the two grease filters into the openings underneath your microwave.



6 You're finished! See "Before using your microwave" on page 41

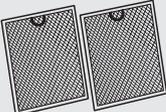
You'll need:



Nylon grommet
(for metal cabinets)



Self-aligning machine
screws



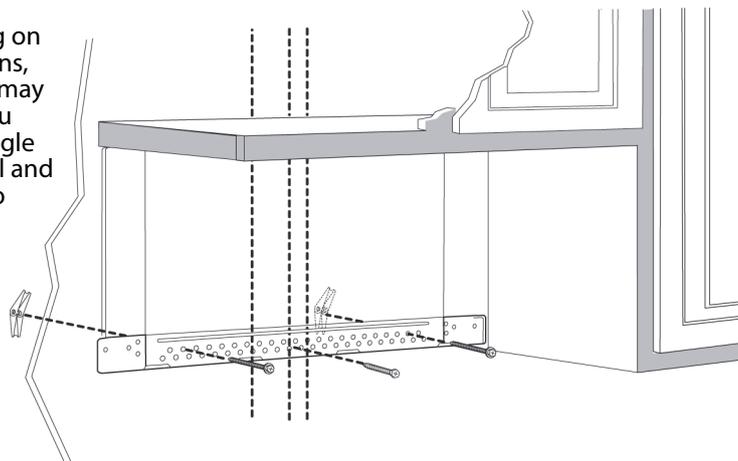
Grease filters



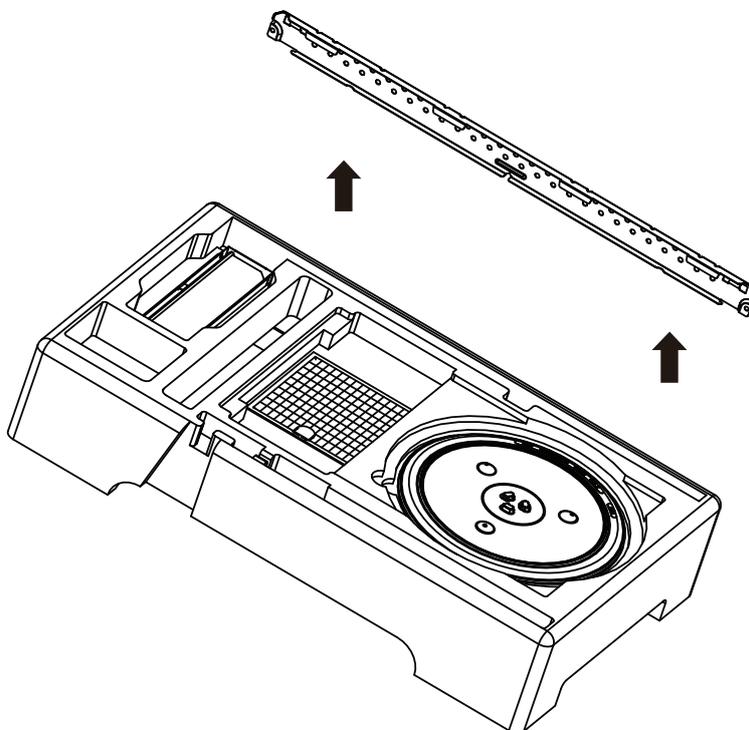
Phillips screwdrivers

Step 4: Option C - Attach the mounting plate to the wall

Note: Depending on your stud locations, your installation may look different. You should insert toggle bolts into drywall and wood screws into studs.

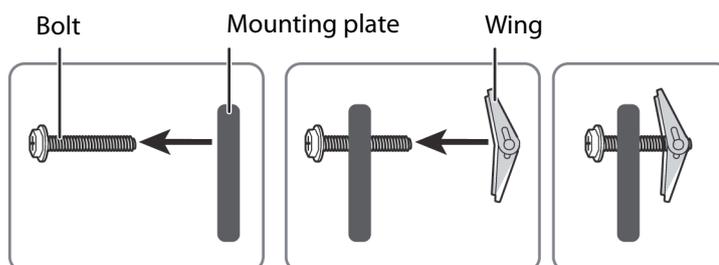


- 1 Remove the rear wall template.
- 2 Remove the mounting plate from the upper foam.



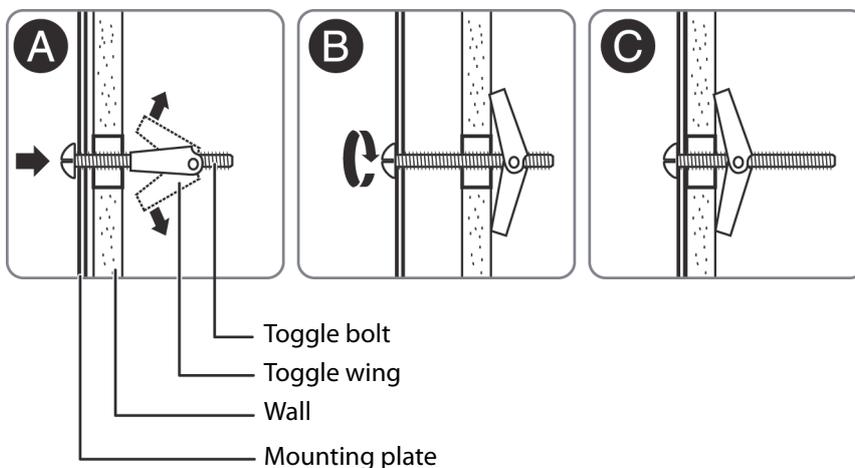
- 3 Insert the bolt(s) through the front of the mounting plate into the hole(s) that are not going into a stud, and then reattach the toggle wings $\frac{3}{4}$ " onto each bolt. Hold your mounting plate up to holes in your wall to identify the correct position.

Note: The top of the mounting plate is indicated with an arrow. The mounting plate's hooks are on the front.

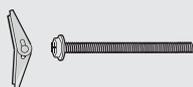


- 4 Place the mounting plate against the wall and insert the toggle wings into the holes you drilled in the drywall. Pull the mounting plate away from the wall to help tighten the toggle wings.
- 5 Insert wood screw(s) through the mounting plate and into the hole(s) drilled in the stud(s), then tighten both the wood screw(s) and toggle bolt(s) with a Phillips screwdriver to mount the plate. Make sure that the plate is centered before tightening fully.

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



You'll need:



Toggle bolts



Wood screws



Phillips screwdrivers



Mounting plate (Qty. 1)

Step 5: Option C - Preparing the top cabinet

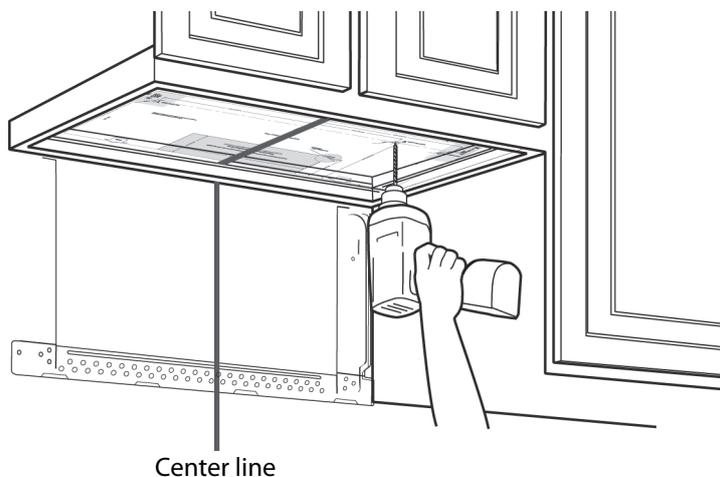
You need to drill holes for the top support screws and a hole large enough for the power cord to fit through.

- 1 Turn off the power to the outlet in the cabinet.
- 2 Remove everything from the cabinet.
- 3 Trim the *Top Cabinet Template* along the dotted line.
- 4 If the bottom of your cabinet is recessed and the template is too large, trim the edges to fit. Your template should fit snugly inside the space with no overhang.

Notes:

- Make sure that you keep the left and right sides even. For example, if you need to trim the sides by 1", cut 1/2" from the left side and 1/2" from the right side.
- Some cabinets have a small bracket or glue block between the overhang and the underside of the cabinet bottom. Cut the template to fit around these so it lies flat on the bottom of the cabinet.

- 5 To position the *Top Cabinet Template*:
 - Align the center line on the template with the center line that you drew on the wall.
 - Align the back edge of the template to the rear wall (smooth or flat bottom cabinets) or to the back of the recess (recessed cabinets) to make sure that the holes cut into the upper cabinet align with the holes in the top of the microwave.



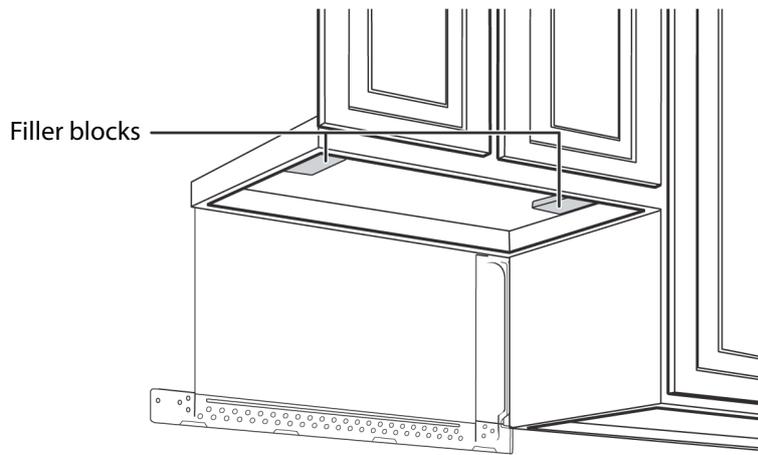
- 6 Tape the template to the bottom of the cabinet.
- 7 Drill 1/2" holes through the template at points **D** and **E**.

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

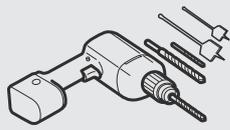
- 8 Cut a 2" diameter hole at point **F** for the power cord.
- 9 Remove the template.

10 If you have recessed cabinets:

- Make two filler blocks out of scrap wood pieces the size of shaded areas **G** and **H**. They must be as thick as the depth of the cabinet recess.
- Drill 5/8" holes in the filler blocks to align with points **D** and **E**.
- Align the blocks with the corresponding holes in the cabinet. They should be at the same level as the bottom edge of the cabinet frame.



You'll need:



Electric drill with 1/2" and 5/8" bits



Duct tape



Scissors
(recessed cabinets only)



Safety goggles



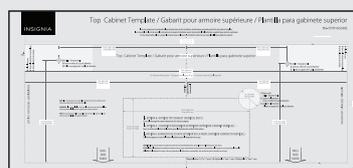
Ruler or tape measure



Saw
(saber, hole, or keyhole)



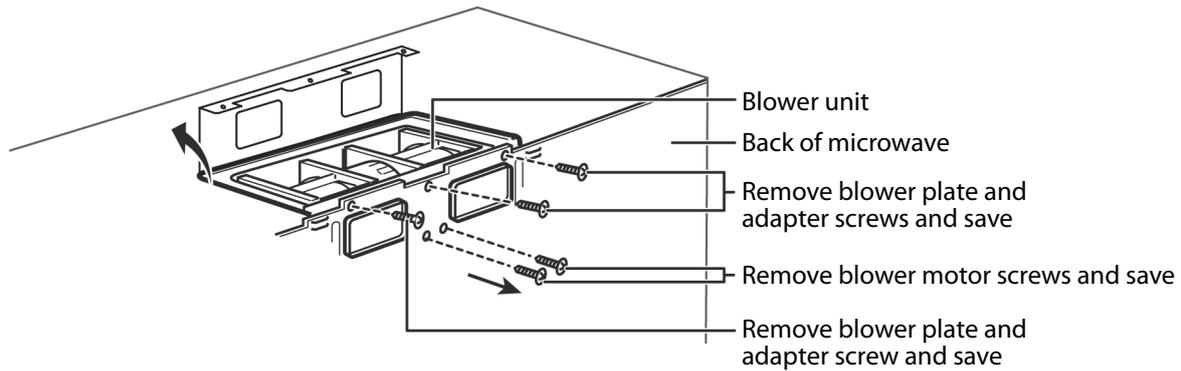
Filler blocks or scrap wood pieces
(for recessed cabinets only)



Top Cabinet Template

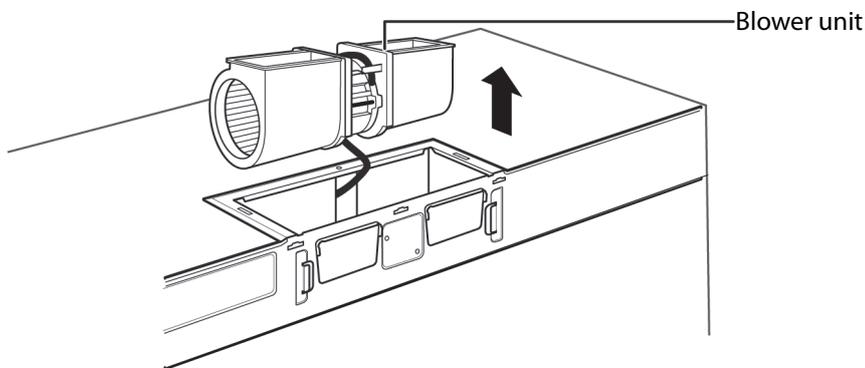
Step 6: Option C - Adapting blower for recirculation

- 1 Remove and save the five screws that hold the blower unit in the microwave.

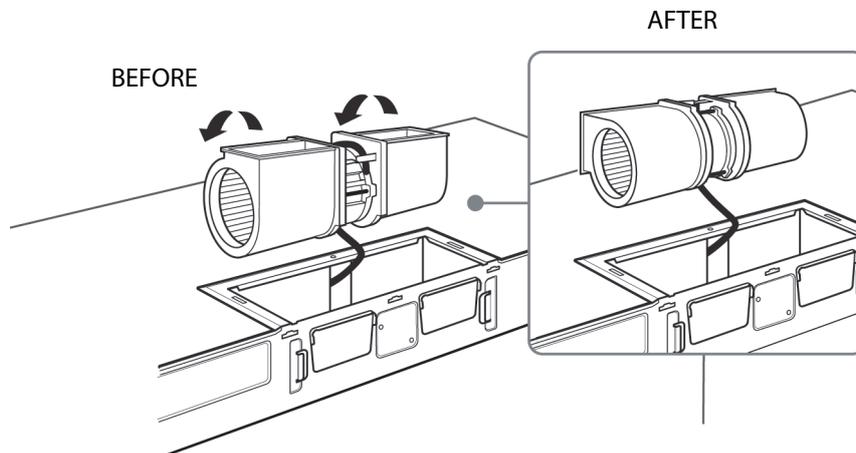


- 2 Carefully pull out the blower unit. The wires will extend far enough to let you adjust the blower unit. Do not disconnect the wires.

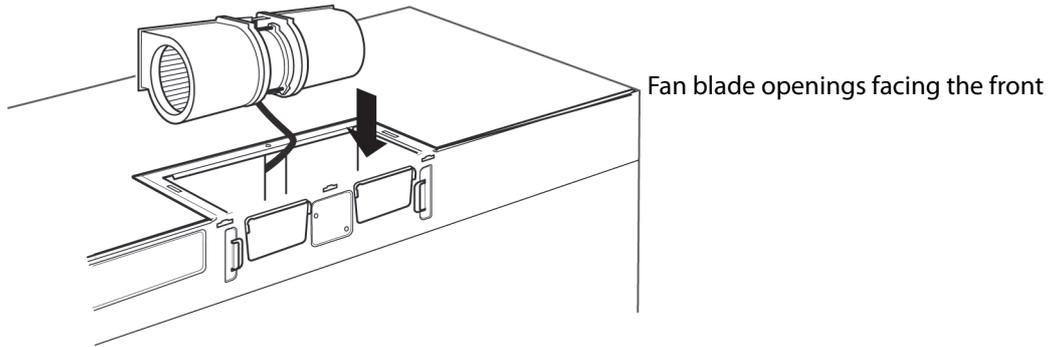
WARNING: Do not pull or stretch the blower unit wiring. Make sure that the wires are not pinched.



- 3 Turn the blower unit 90° so that the fan blade openings are facing the front of the microwave.

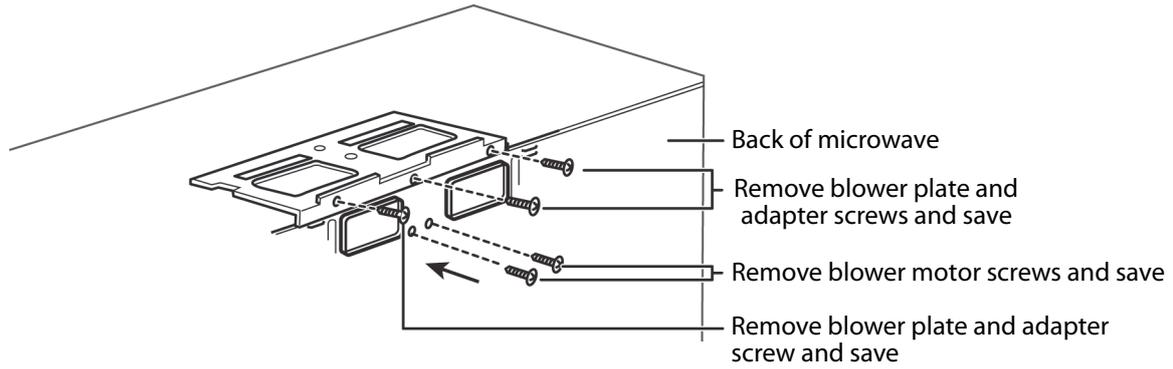


-
- 4** Place the blower unit back into the opening. The blower unit exhaust openings should match the exhaust openings toward the front of the microwave.



5 Secure the blower unit in the microwave with the remaining screws you previously removed.

Note: Make sure that the damper hinge is at the top and that it can swing freely.



You'll need:



Phillips screwdrivers

Step 7: Option C - Mount the microwave

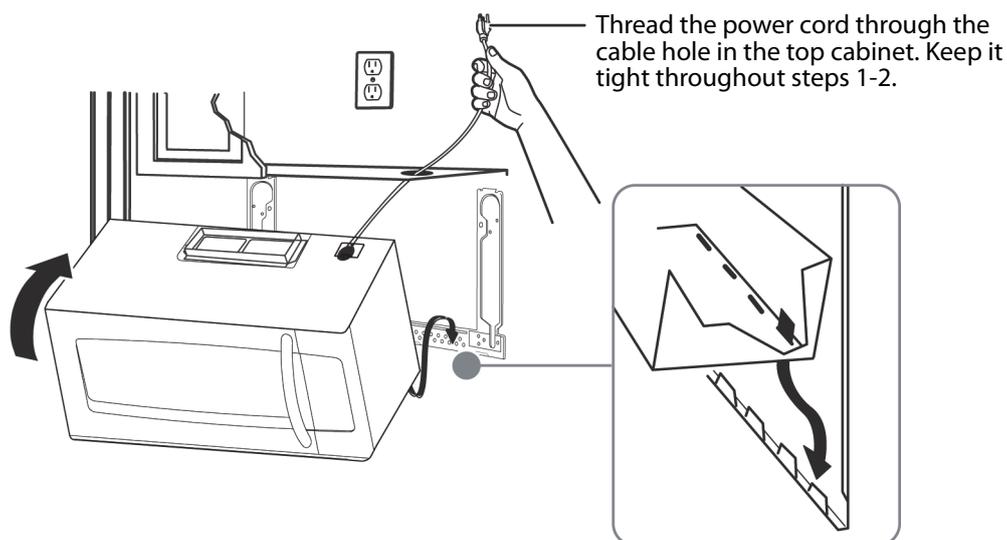
CAUTIONS:

- For easier installation and personal safety, we recommend that two people install this product because of the weight. We highly recommend professional installation if any electrical or carpentry work is required.
- Do not grip or use the handle during installation.
- To keep the power cord tight while mounting the microwave oven, thread the power cord through the hole in bottom of the top cabinet.

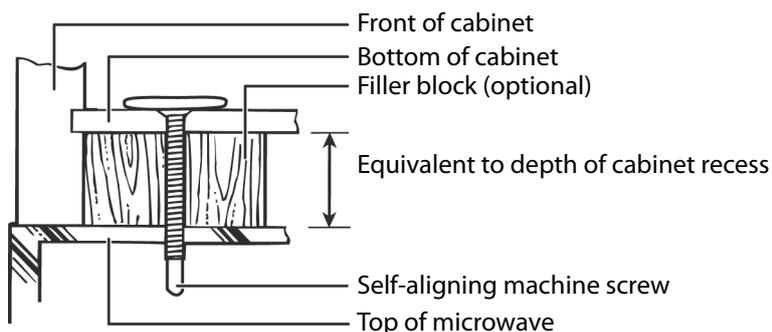
- 1 If your cabinet is metal, insert the nylon grommet into the power cord hole to prevent cutting the cord.
- 2 Lift the microwave, tilt it forward, and hook the slots on the back bottom edge onto the four lower tabs of the mounting plate. Rotate the front of the microwave up against the bottom of the cabinet.

Notes:

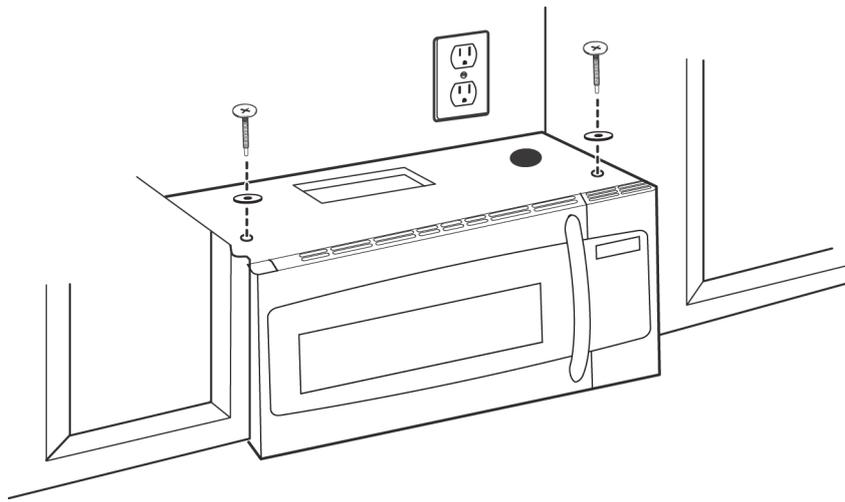
- We recommend using filler blocks if the front of the cabinet hangs below the cabinet's bottom shelf.
- If filler blocks are not used, damage may occur from over-tightening the screws.
- Be sure to keep the power cord tight.
- Do not pinch the cord, especially when mounting flush to the bottom of the cabinet.



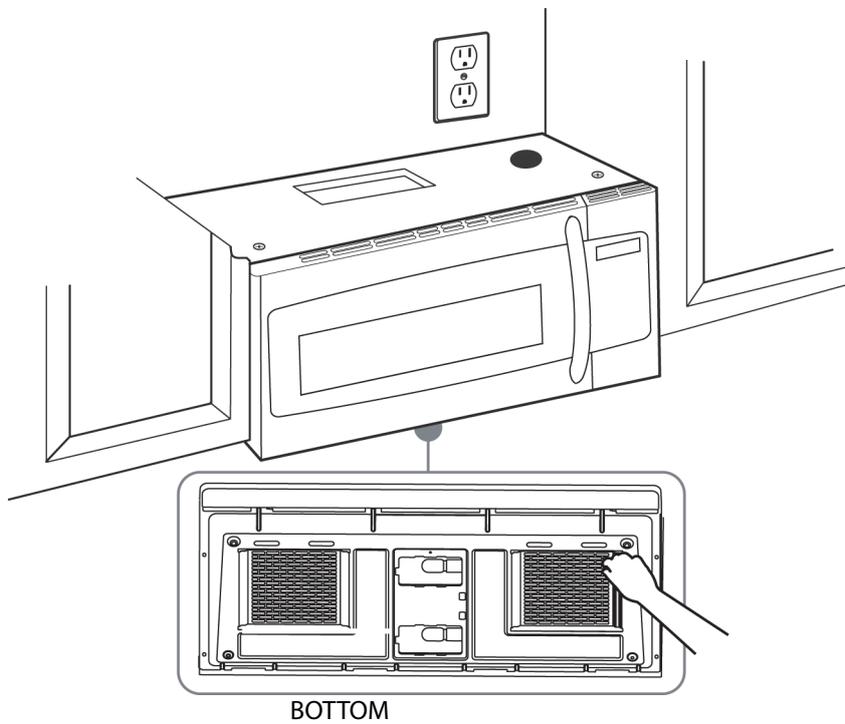
- 3 To attach the microwave oven to the top cabinet, insert two self-aligning machine screws through the holes you drilled in the bottom of the cabinet. Turn each screw at least two full turns (they will be fully tightened later).



- 4 While holding the microwave up against the wall and cabinet fully tighten the outer two screws.



- 5 Fit the two grease filters into the openings underneath your microwave.



- 6 You're finished! Skip to ["Before using your microwave" on page 41](#).

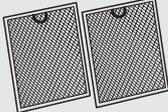
You'll need:



Nylon grommet
(for metal cabinets)



Self-aligning machine
screws



Grease filters



Phillips screwdrivers

Before using your microwave

Note: Keep these installation instructions for the local inspector's use.

- 1 Make sure that all packing material has been removed from the microwave.
- 2 Install the turntable and ring inside your microwave. See your *User Guide* for more information.
- 3 Plug the power cord into a dedicated 20 amp electrical outlet.
- 4 Turn your circuit breaker back on.

Obtaining replacement parts

Call Insignia Customer Service at 1-877-467-4289.

Specifications

Model	NS-OTR16SS9 / NS-OTR16WH9
Rated voltage	120V / 60 Hz
Rated input power	1500 W
Rated output power	1000 W
Microwave capacity	1.6 cu. ft.
Turntable diameter	12.4 in. (31.5 cm)
External dimensions (HxWxD)	16.9 x 29.9 x 17.6 in. (42.9 x 75.9 x 44.6 cm)
Internal dimensions (HxWxD)	10.2 x 21.1 x 14.6 in. (25.9 x 54.1 x 37.1 cm)
Certifications	UL and CUL approved
Power cord length	39.8 in. (101 cm)
Net weight	52.5 lbs. (23.8 kg)

Legal notices

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ONE-YEAR LIMITED WARRANTY

Definitions:

The Distributor* of Insignia branded products warrants to you, the original purchaser of this new Insignia-branded product ("Product"), that the Product shall be free of defects in the original manufacturer of the material or workmanship for a period of one (1) year from the date of your purchase of the Product ("Warranty Period").

For this warranty to apply, your Product must be purchased in the United States or Canada from a Best Buy branded retail store or online at www.bestbuy.com or www.bestbuy.ca, and is packaged with this warranty statement.

How long does the coverage last?

The Warranty Period lasts for 1 year (365 days) from the date you purchased the Product. Your purchase date is printed on the receipt you received with the Product.

What does this warranty cover?

During the Warranty Period, if the original manufacture of the material or workmanship of the Product is determined to be defective by an authorized Insignia repair center or store personnel, Insignia will (at its sole option): (1) repair the Product with new or rebuilt parts; or (2) replace the Product at no charge with new or rebuilt comparable products or parts. Products and parts replaced under this warranty become the property of Insignia and are not returned to you. If service of Products or parts are required after the Warranty Period expires, you must pay all labor and parts charges. This warranty lasts as long as you own your Insignia Product during the Warranty Period. Warranty coverage terminates if you sell or otherwise transfer the Product.

How to obtain warranty service?

If you purchased the Product at a Best Buy retail store location or from a Best Buy online website (www.bestbuy.com or www.bestbuy.ca), please take your original receipt and the Product to any Best Buy store. Make sure that you place the Product in its original packaging or packaging that provides the same amount of protection as the original packaging.

To obtain warranty service, in the United States and Canada call 1-877-467-4289. Call agents may diagnose and correct the issue over the phone.

Where is the warranty valid?

This warranty is valid only in the United States and Canada at Best Buy branded retail stores or websites to the original purchaser of the product in the country where the original purchase was made.

What does the warranty not cover?

This warranty does not cover:

- Customer instruction/education
- Installation
- Set up adjustments
- Cosmetic damage
- Damage due to weather, lightning, and other acts of God, such as power surges
- Accidental damage
- Misuse
- Abuse
- Negligence
- Commercial purposes/use, including but not limited to use in a place of business or in communal areas of a multiple dwelling condominium or apartment complex, or otherwise used in a place of other than a private home.
- Modification of any part of the Product, including the antenna
- Display panel damaged by static (non-moving) images applied for lengthy periods (burn-in).
- Damage due to incorrect operation or maintenance
- Connection to an incorrect voltage or power supply
- Attempted repair by any person not authorized by Insignia to service the Product
- Products sold "as is" or "with all faults"
- Consumables, including but not limited to batteries (i.e. AA, AAA, C etc.)
- Products where the factory applied serial number has been altered or removed
- Loss or Theft of this product or any part of the product
- Display panels containing up to three (3) pixel failures (dots that are dark or incorrectly illuminated) grouped in an area smaller than one tenth (1/10) of the display size or up to five (5) pixel failures throughout the display. (Pixel based displays may contain a limited number of pixels that may not function normally.)
- Failures or Damage caused by any contact including but not limited to liquids, gels or pastes.

REPAIR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS YOUR EXCLUSIVE REMEDY FOR BREACH OF WARRANTY. INSIGNIA SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR THE BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT, INCLUDING, BUT NOT LIMITED TO, LOST DATA, LOSS OF USE OF YOUR PRODUCT, LOST BUSINESS OR LOST PROFITS. INSIGNIA PRODUCTS MAKES NO OTHER EXPRESS WARRANTIES WITH RESPECT TO THE PRODUCT, ALL EXPRESS AND IMPLIED WARRANTIES FOR THE PRODUCT, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD SET FORTH ABOVE AND NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THE WARRANTY PERIOD. SOME STATES, PROVINCES AND JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE OR PROVINCE TO PROVINCE.

Contact Insignia:

For customer service please call 1-877-467-4289

www.insigniaproducts.com

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