

Over The Range Microwave Oven INSTALLATION INSTRUCTIONS

Read carefully and keep these installation instructions

A REQUIREMENTS FOR INSTALLATION

Installation of this product is safest and easiest when performed by two people. Before beginning the installation, please read the following requirements to make sure you have everything you need to safely install this product.

1. SUPPLY CIRCUIT AND GROUNDING REQUIREMENTS

This oven must be plugged into a 15 AMP or 20 AMP, 120 volt, 60 Hz, 3 prong grounded outlet. The outlet must be connected to a separate 15 AMP or 20 AMP circuit of the proper voltage and frequency. No other appliance should share the circuit. Wire size must conform to the requirements of the National Electric Code or the prevailing local code for this kilowatt rating.

The recommended location for this outlet is inside the cabinet directly above where the oven is going to be installed. This location is desirable because the power supply cord on the product is short. If an outlet is not readily available, one should be installed by a qualified electrician and should conform to the National Electric Code or the prevailing local code.

The installer must perform a ground continuity check on the outlet box to ensure that it is properly grounded, and if it does not meet the electrical requirements of the product a qualified electrician should be employed to correct any deficiencies.

2. MOUNTING SURFACE WEIGHT CAPACITY REQUIREMENTS

FOR PERSONAL SAFETY, ANY MOUNTING SURFACE FOR THIS PRODUCT MUST BE CAPABLE OF SUPPORTING THE PRODUCT'S WEIGHT OF 55 lbs. (25 kg). PLUS ADDITIONAL OVEN LOADS OF UP TO 22 lbs. (10 kg). FOR A TOTAL WEIGHT OF 77 lbs. (35 kg).

Proper installation of this product requires that the product be partially supported by the bottom surface of the cabinet directly above the mounting location. Therefore reinforcing this bottom might be necessary if the cabinet cannot support the weight requirement mentioned above.

3. MOUNTING SPACE REQUIREMENT

Kitchen cabinet depth must be at least 12" (30.5 cm) and not over 12.5" (31.75 cm).

If your oven is to be vented into the kitchen, vent can not be covered.

A minimum width of 30" (76 cm) is required on a flat, vertical wall for installation of this product.

This product is suitable for use above gas or electric cooking equipment 36 in. or less. To reduce the risk of fire or electric shock, install the oven at the clearance "H" specified below:

(Fig. A-1)

- Electric range:
H = 13⁵/₈" (34.6 cm) MINIMUM
- Gas range:
H = 16" (40.6 cm) MINIMUM

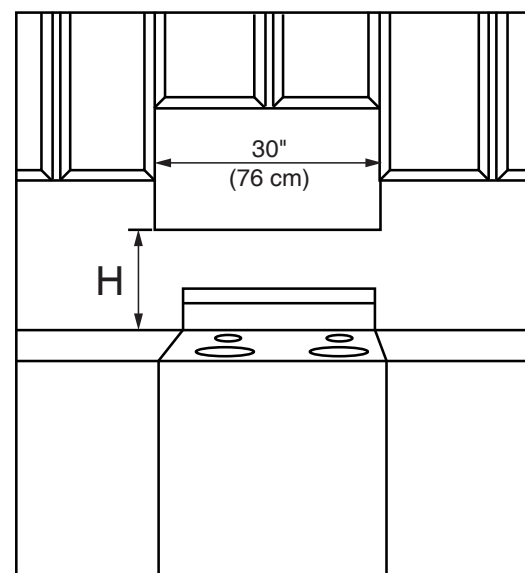


Fig. A-1

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4. EXHAUST REQUIREMENTS

This product is shipped for use in the top exhaust ventilation mode.

If you wish to install this product without using an exhaust duct, the exhaust must be recirculated through the front grille and the charcoal filter. This product is shipped with a standard charcoal filter already installed. The Charcoal Filter cannot be cleaned and should be replaced periodically every 6 to 12 months, or more often if necessary.

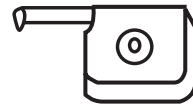
When necessary to replace the charcoal filter, it can be purchased from your local Panasonic dealer. The part number of the replacement charcoal filter is NN-CF203, refer to the following instructions for replacement.

5. TOOL REQUIREMENTS

Adhesive Tape



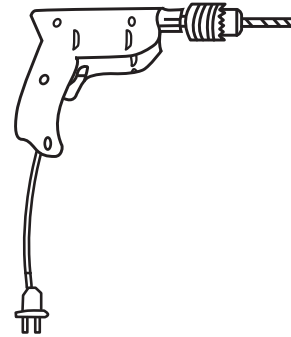
Tape Measure



Phillips Screwdriver



Electric or Hand Drill



Electric or Hand Jigsaw



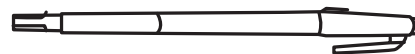
Side Cutter or Tin Snipper



Metal File



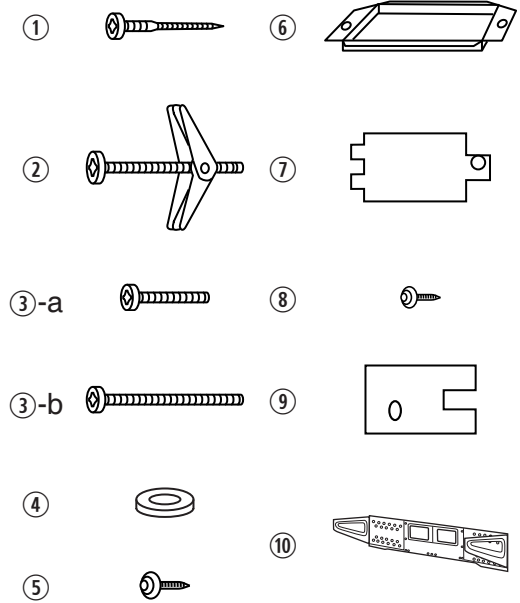
Marking Pen



B INSTALLATION HARDWARE

The installation hardware (①~⑩) packed with the products should include the following:

NO.	NAME	QUANTITY
①	Wood Screw $\frac{5}{32}$ " \times $1\frac{3}{4}$ " (5 \times 45 mm)	4
②	Toggle Bolts $\frac{5}{32}$ " \times $2\frac{3}{8}$ " (5 \times 60 mm)	4
③-a	Screw $\frac{5}{32}$ " \times $1\frac{1}{2}$ " (5 \times 40 mm)	2
③-b	Screw (For cabinets with recessed bottom) $\frac{5}{32}$ " \times $3\frac{1}{8}$ " (5 \times 80 mm)	2
④	Flat Washer	2
⑤	Screw (For Exhaust Adaptor) $\frac{5}{32}$ " \times $\frac{3}{8}$ " (4 \times 10 mm)	2
⑥	Exhaust Adaptor	1
⑦	Ventilation Exhaust Cover	2
⑧	Screw (For Ventilation Exhaust Cover) $\frac{1}{8}$ " \times $\frac{5}{16}$ " (3 \times 8 mm)	2
⑨	Metal Brace	1
⑩	Bracket Assembly (at rear of product)	1



1. The installation hardware is taped on top of the oven.
2. Use only installation hardware supplied with Panasonic for installing.

C INSTALLATION PROCEDURE

Remove the bracket assembly located on the rear of oven and remove all adhesive tape.

STEP 1: PRE-INSTALLATION CHECK POINTS

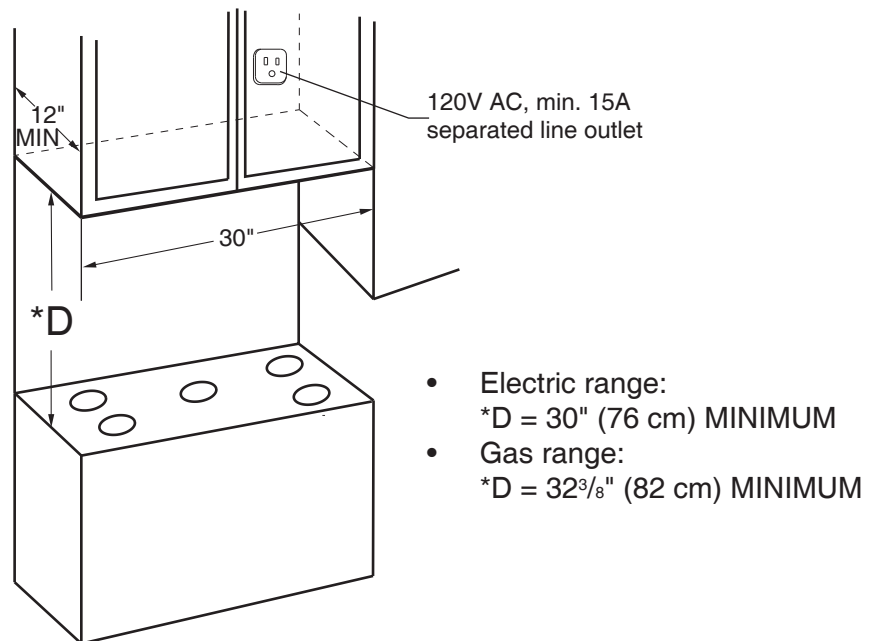
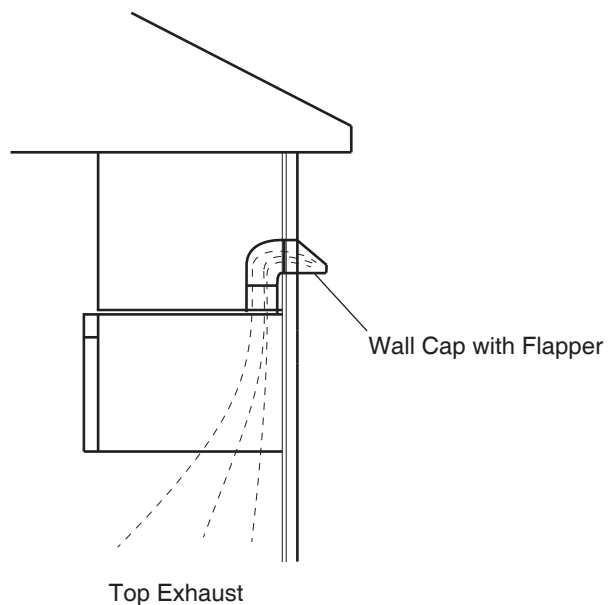


Fig. 1

1. Confirm the separated line electric outlet. (Fig. 1)
2. Exhaust Preparation: Select the type of ventilation required for your installation, and proceed to the following instructions.

a. Top Exhaust (Fig. 1-1)

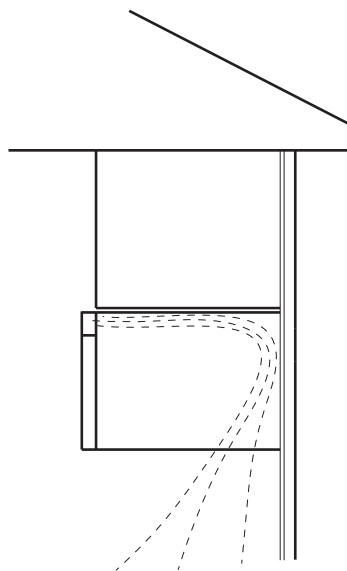
This product is shipped ready for top exhaust ventilation mode use without adjusting the product.



Top Exhaust

Fig. 1-1

b. Recirculating (Non-vented, Ductless) (Fig. 1-2)



Recirculating (Non-vented, Ductless)

Fig. 1-2

If your oven is to be vented into the kitchen, the standard charcoal filter is already installed in your oven, ready for recirculating mode.

When you replace the charcoal filter, refer to the instructions in the Operating Instructions (Maintenance/Care and Cleaning of Your Microwave Oven).

Changing the exhaust direction to the recirculating mode

- (1) Remove two blower plate mounting screws and two blower unit mounting screws (top and rear).
(Fig. 1-2-1)
- (2) Remove the blower plate from the product. (Fig. 1-2-1)

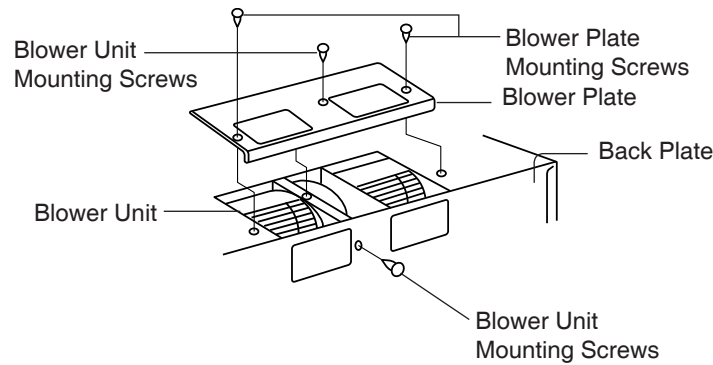


Fig. 1-2-1

- (3) Carefully lift the blower unit out of the product, and rotate blower unit 90 degrees so the exhaust ports are facing toward the front of the product. (Fig. 1-2-2)

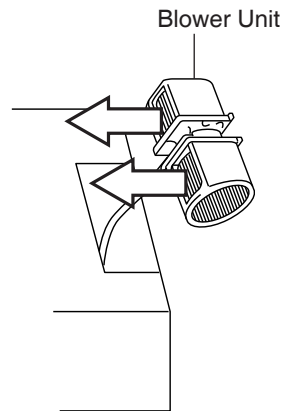


Fig. 1-2-2

- (4) Replace blower unit back into product. Be careful not to pinch the lead wires between blower unit and oven top. Make sure the fan blades are visible through the front exhaust openings. (Fig. 1-2-3)

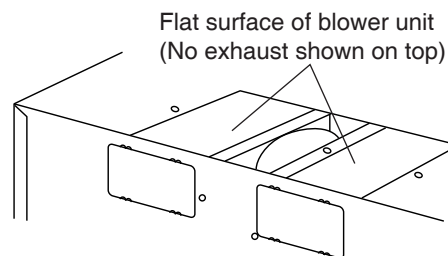


Fig. 1-2-3

- (5) Replace blower plate onto the product. Secure blower unit with two screws, one through the blower plate, and the other through oven back plate. Secure blower plate onto the product top with two screws. (Fig. 1-2-4)

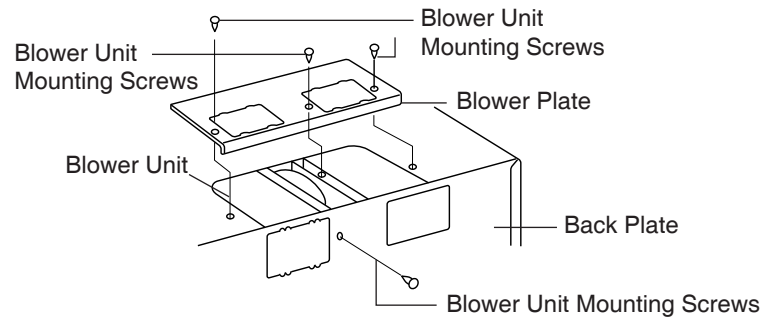


Fig. 1-2-4

- (6) Slide two tabs of ventilation exhaust covers (7) into two small square openings of blower plate so that two large openings are covered. Secure each with one screw (8). (Fig. 1-2-5)
Make sure two tabs are inserted into square holes and the screw heads are not protruding from blower plate surface.

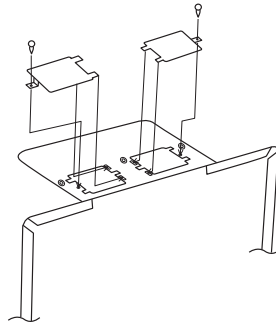


Fig. 1-2-5

c. Rear Exhaust

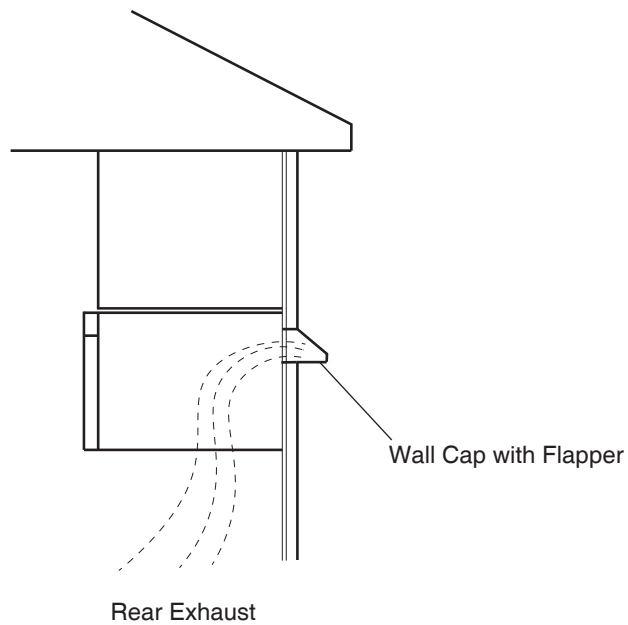


Fig. 1-3

- (1) Remove two blower plate mounting screws and two blower unit mounting screws, top and rear. (Fig. 1-2-1)
- (2) Remove the blower plate from the product. (Fig. 1-2-1)
- (3) Carefully lift the blower unit and put it on top of product. (Fig. 1-3-1)

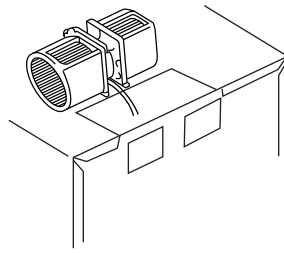


Fig. 1-3-1

- (4) Use side cutters or tin snipper to cut and remove knockout parts "A" from back plate. Discard knockouts. File the openings smooth to prevent injury caused by sharp edges. (Fig. 1-3-2)

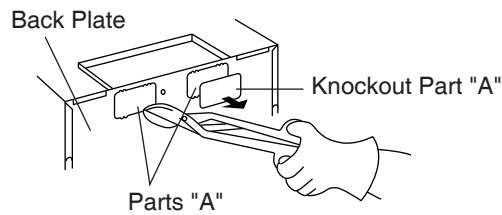


Fig. 1-3-2

- (5) Turn blower unit right to left. Then rotate blower unit 90 degrees so the exhaust ports are facing toward the rear of the product. (Fig. 1-3-3)

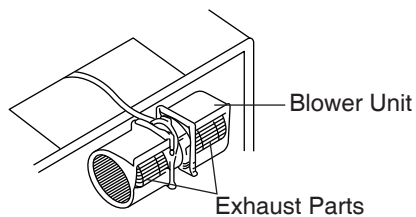


Fig. 1-3-3

- (6) Replace blower unit back into product. Be careful not to pinch the lead wires between blower unit and oven top. Make sure the fan blades are visible through the exhaust openings on the back plate. (Fig. 1-3-4)

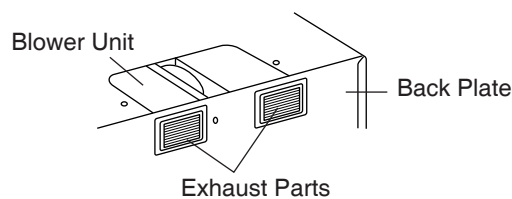


Fig. 1-3-4

- (7) Replace blower plate onto the product. Secure blower unit with two screws, one through the blower plate, and the other through oven back plate. Secure blower plate onto the product top with two screws. (Fig. 1-3-5)
- (8) Slide two tabs of ventilation exhaust covers ⑦ into two small square openings of blower plate so that two large openings are covered. Secure each with one screw ⑧. (Fig. 1-2-5)
Make sure two tabs are inserted into square holes and the screw heads are not protruding from blower plate surface.

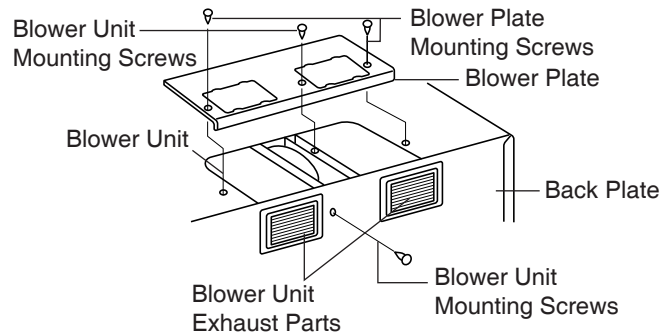


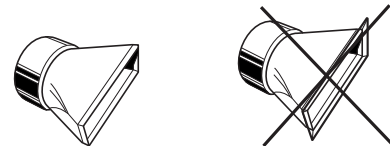
Fig. 1-3-5

Note: Exhaust Adaptor ⑥ must be secured onto bracket assembly ⑩ before installing it on the wall. See STEP 2: USING THE TEMPLATE for details.

3. EXHAUST DUCT

The hood exhaust has been designed to match with a standard 3¹/₄"x10" (8.3 cm x 25.4 cm) rectangular duct. If a round duct is desired, a rectangular-to-round transition adaptor must be used.

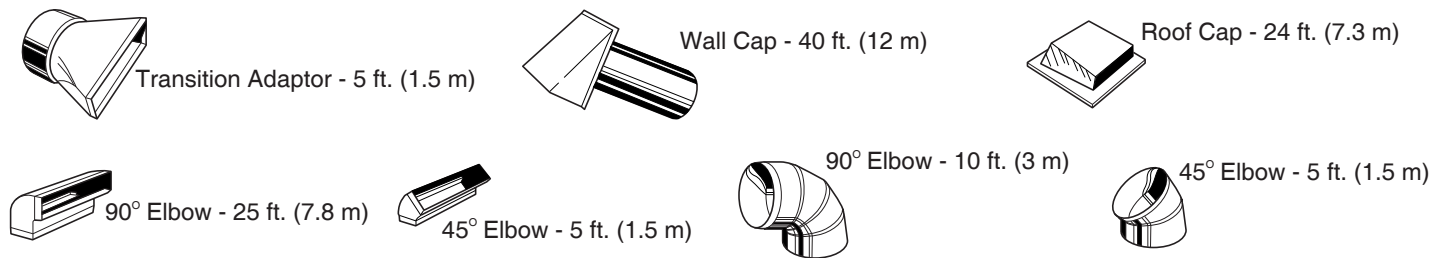
Note: Round duct elements with a 6" diameter are recommended.



MAXIMUM DUCT LENGTH

For satisfactory air movement (CFM), the total duct length should not exceed 130 feet (39.6 m) of 3¹/₄"x10" (8.3 cm x 25.4 cm) rectangular duct.

This 130 feet maximum can be comprised entirely of straight duct or the total amount of straight duct used plus the equivalent amount in feet of elbows, transitions, wall or roof caps, etc. which were used. The drawings below show approximate measurements for typical round duct elements [with a 6" (15.2 cm) diameter] and rectangular duct elements 3¹/₄"x10" (8.3 cm x 25.4 cm). For example, a 90 degree elbow, equivalent to 10 ft. (3 m), and a transition adaptor, equivalent to 5 ft. (1.5 m), can be used with a maximum of 115 feet of straight duct.



STEP 2: USING THE TEMPLATE

It is recommended that the bracket assembly be mounted to a flush wall of 2" x 4" (5 cm x 10 cm) stud and 1/2" (1.25 cm) minimum thickness drywall construction.

1. To prepare the bottom surface of the top cabinet and the wall, holes must be drilled or cut into these surfaces. A template is provided for preparing these holes. Read the instructions on the template before taping it to the bottom of the cabinet and the wall.
2. Wall and Cabinet preparation
 - 2-1. Draw a vertical center line on the wall and a center line under the cabinet. (Fig. 2-1)

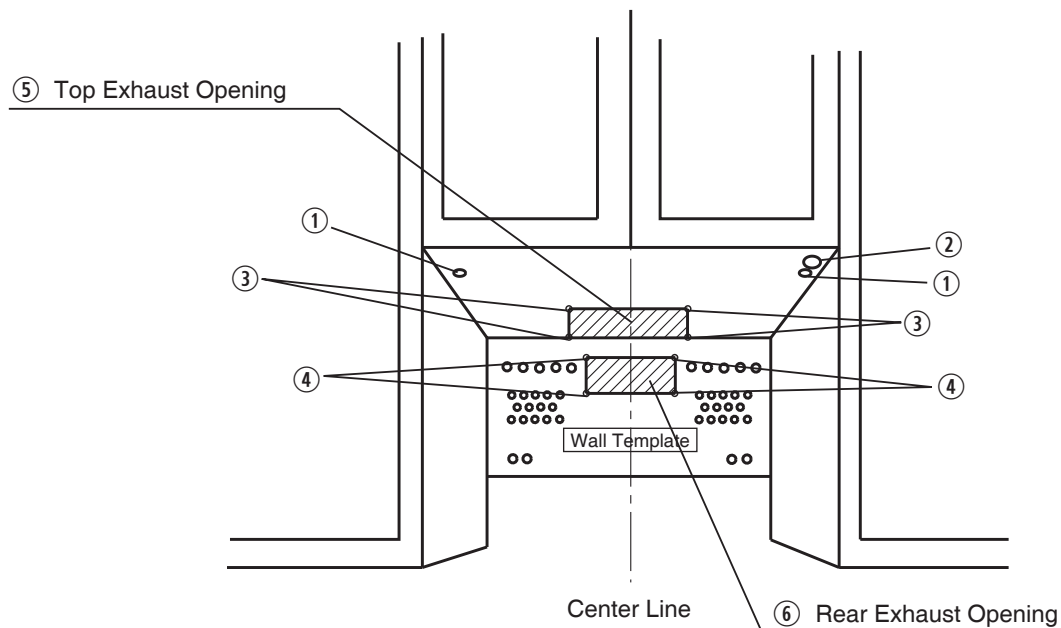


Fig. 2-1

- 2-2. Locate wall studs by tapping or test drilling and mark vertical center line along the wall studs on wall template. If there are no wall studs in the opening area, DO NOT install the product. Consult your builder.

Note: Cabinets with recessed bottoms sometimes require furring to be used to create a flush surface for the two mounting screws. (Fig. 2-2)

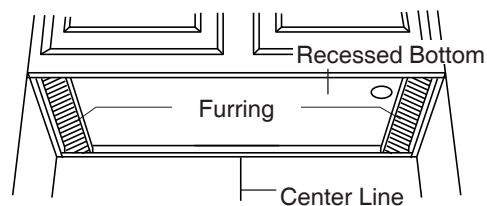


Fig. 2-2

3. Fold the template along the dotted line on the rear wall. Align the center line with center line on the wall and the top cabinet. Tape the template to the underneath of top cabinet and the wall. (Fig. 2-3)

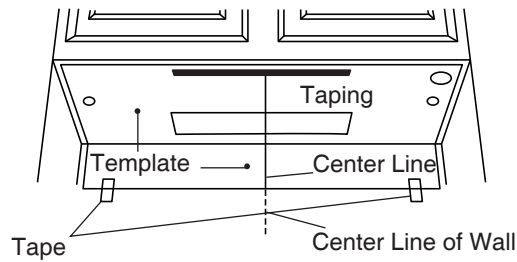


Fig. 2-3

- 3-1 Drill 3 pilot holes at the center point (No.① and No.② in Fig. 2-1)
If Top Exhaust application is chosen, you will need 4 more pilot holes. (No.③ in Fig. 2-1)
If Rear Exhaust application is chosen, you will need 4 more pilot holes. (No.④ in Fig. 2-1)
- 3-2 Remove the template.
- 3-3 Drill two $\frac{1}{2}$ " holes in the No.① pilot holes. Drill a $\frac{3}{16}$ " hole in the No.② pilot hole for AC cord.
- 3-4 If Top Exhaust application is chosen, you will need to cut the Top Exhaust opening. (No.⑤ in Fig. 2-1)
If Rear Exhaust application is chosen, you will need to cut the Rear Exhaust opening. (No.⑥ in Fig. 2-1)

STEP 3: INSTALLING THE MOUNTING BRACKET

CAUTION:

To support the oven's weight, bracket must be secured by at least

- Four wood screws on the wall studs (2 screws on each side) or
- Two wood screws on the wall studs and 4 toggle bolts through the wall

PREPARATION OF BRACKET ASSEMBLY

Note: If Rear Exhaust is chosen, the product needs a Rear Wall Exhaust cutout opening for the Rear Wall duct and the Exhaust adaptor must be installed on the bracket (hardware item ⑥) with two screws. (hardware item ⑤) (Fig. 2-1).

Check that the damper blade moves smoothly and opens fully as shown. (Fig. 3-1)

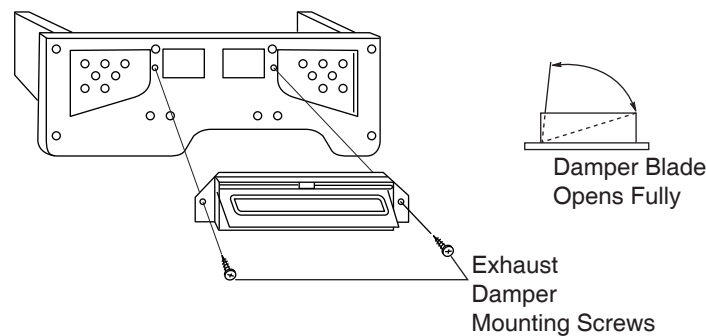


Fig. 3-1

INSTALLATION OF BRACKET

1. Draw a wall stud line.
2. Centre the bracket assembly ⑩ against the wall and top cabinet.
3. Drill holes. (Fig. 3-2 or Fig. 3-3)

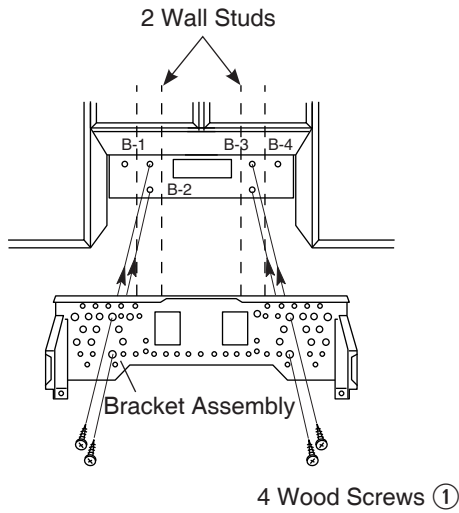


Fig. 3-2

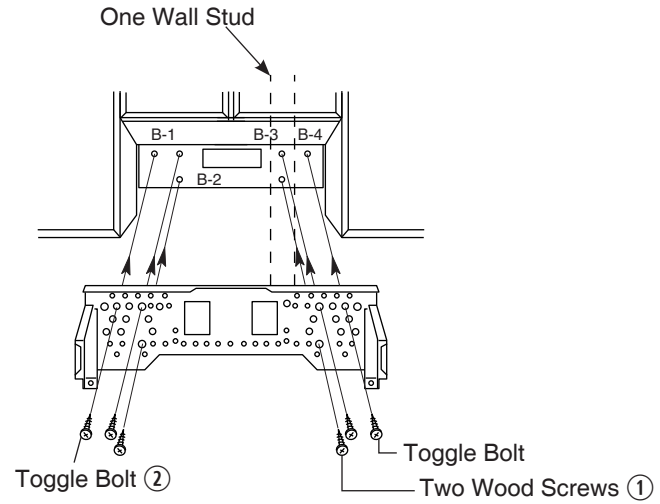


Fig. 3-3

- 3-1 Mark 2 holes on the wall stud line.
- 3-2 Mark other 4 holes on the other area.
- 3-3 Remove the bracket.
- 3-4 Drill two $\frac{1}{8}$ " holes on the stud line for wood screw.
- 3-5 Drill four $\frac{5}{8}$ " holes for toggle bolts.
4. Tighten screws and bolts.
 - 4-1 Unscrew toggle bolts and insert through the bracket, then insert the bolts through the dry wall. (Fig. 3-4)

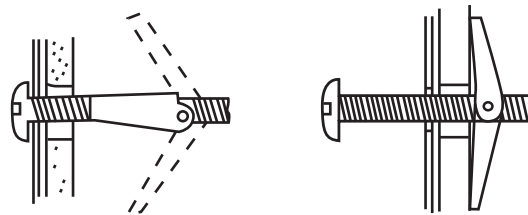


Fig.3-4

- 4-2 Fasten the bracket with two $1\frac{3}{4}$ " wood screws ①.
- 4-3 Tighten four toggle bolts ②.

STEP 4: INSTALLING THE MICROWAVE OVEN

1. Remove contents from inside the oven including glass tray.
Be sure to close the door. Remove all contents from upper kitchen cabinet.
2. Place a piece of cardboard or blanket on the cook top, place oven on the cardboard or blanket.
3. Before sliding the oven on the bracket assembly, be sure that the power supply cord will be accessible through the cabinet.
4. Pass AC cord through kitchen cabinet hole. (No. ② in Fig. 2-1)
5. Lift and install the oven onto the bracket by sliding it over the rails of the bracket. This is easily and safely accomplished with one person on each side of the oven. Push the oven all the way back until it is flush with the wall.

Pull the power supply cord out through the hole and be careful not to pinch it between the outer case of the oven and bottom of the cabinet. The oven should fit snugly underneath the lip of the bracket's upper edge. (Fig. 4-1)

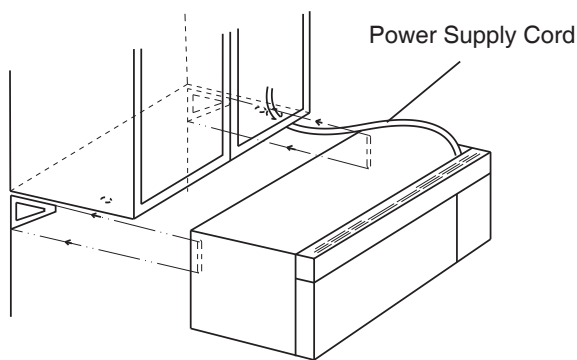


Fig. 4-1

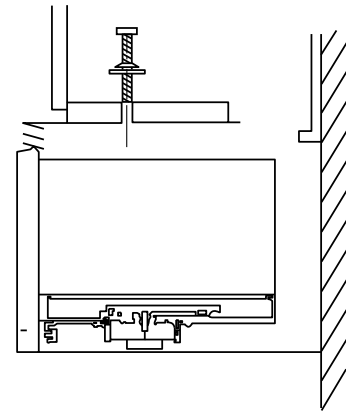


Fig. 4-2

6. Insert one screw (hardware items either ③-a or ③-b) with flat washer (hardware item ④) through the left hole drilled through the top cabinet's bottom and into the top of the oven. (Fig. 4-3)
Insert another screw (hardware items either ③-a or ③-b) with flat washer (hardware item ④) and the metal brace (hardware item ⑨) through the right hole into the top of the oven. (Fig. 4-3)

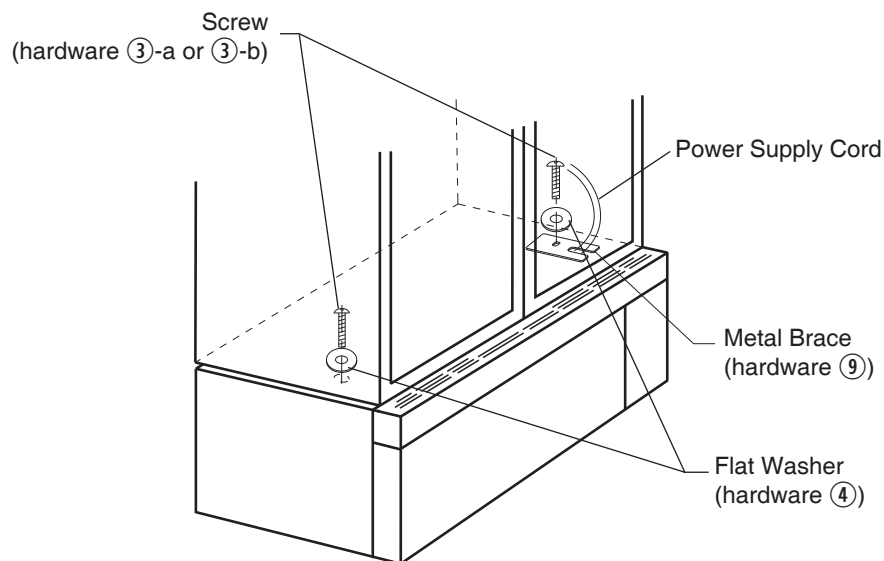


Fig.4-3

7. While tightening these screws, lift the front side of the oven and push it toward the wall. This ensures a flush and level mounting.

STEP 5: INSTALLING THE EXHAUST ADAPTOR AND AIR FILTER

Note: If Top Exhaust application is chosen, mount the Exhaust Adaptor by following steps 1-3 below. Remove 2 screws from the top plate.

1. Mount Exhaust Adaptor (hardware item ⑥) on top of the oven with two $\frac{3}{8}$ " screws. (hardware item ⑤) (Fig. 5-1)

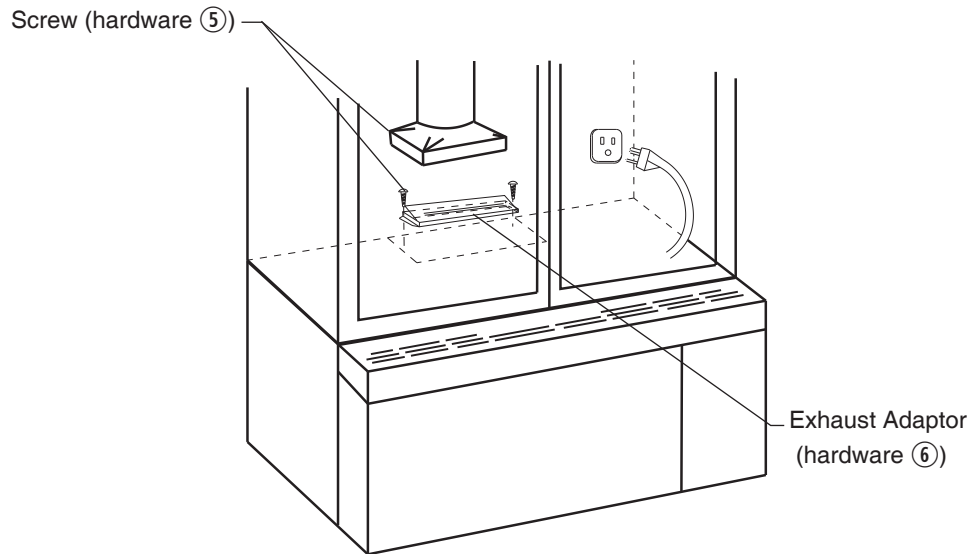


Fig. 5-1

2. Plug AC cord in and turn on the exhaust fan. Confirm the flapper opened freely.
3. Insert a $3\frac{1}{2}$ " \times 10" adaptor with a 6" duct onto the oven Exhaust Adaptor and secure it with duct tape.
4. Grasp the ring of air filter, insert the end of the air filter with out ring into the opening, slide back to the position (Fig. 5-2)

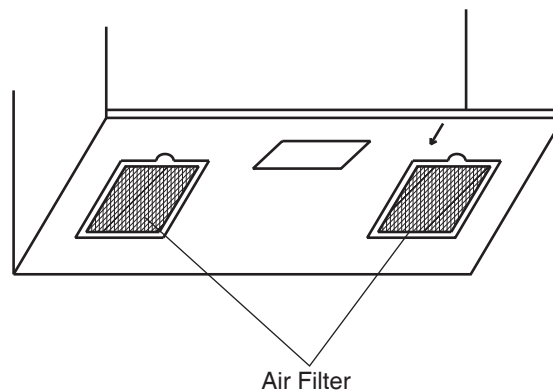


Fig.5-2

STEP 6: OPERATION CHECK LIST

1. Make sure the unit has been installed according to these instructions.
2. Remove all packing materials from the oven.
3. Replace house fuse or turn circuit breaker back on.
4. Plug power cord into receptacle.
5. Read operating instructions before testing the product.
6. Turn on the exhaust fan at Turbo speed and confirm it is operating by using a tissue (it will stick to the filter.)
7. Confirm the outdoor exhaust flapper has opened.
8. Set the microwave oven for 1 minute and confirm the oven is operating normally using a cup of water.
9. Keep these installation instructions for the local electrical inspector's use.