

## OVER THE RANGE MICROWAVE OVEN/HOOD SYSTEM INSTALLATION INSTRUCTIONS

Please read all instructions thoroughly before installing the Microwave Oven/Hood System. Two people are recommended to install this product.

If a new electrical outlet is required, its installation should be completed by a qualified electrician before the Microwave Oven/Hood is installed. See 3 ELECTRICAL GROUNDING INSTRUCTIONS on page 2.

### 1 MOUNTING SPACE

This Microwave Oven/Hood requires a mounting space on a wall as shown in Figure 1.

If the space between the wall cabinets is greater than 30-inches (36-inches or 42-inches), a Filler Panel may be used to fill the gap between the Microwave Oven/Hood system and wall cabinets. The Filler Panel Kit should be installed before the Microwave Oven/Hood is installed.

For proper installation and servicing, a 2-inch space is necessary between the top of the range backsplash and the bottom of the Microwave Oven/Hood system.

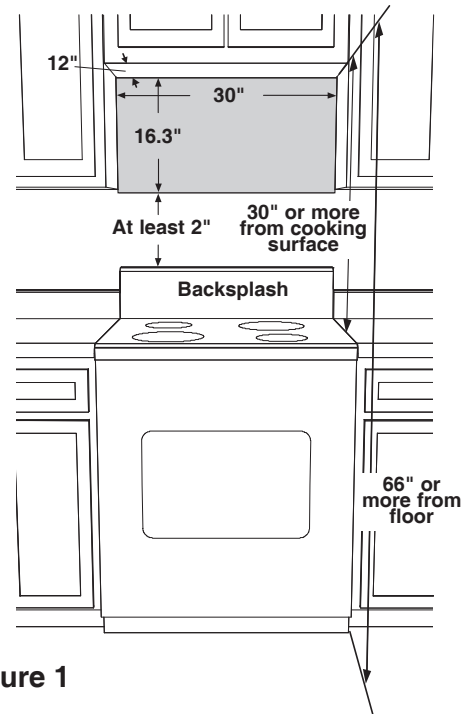


Figure 1

### 2 WALL CONSTRUCTION

This Microwave Oven/Hood should be mounted against and supported by a flat vertical wall. The wall must be flat for proper installation. If the wall is not flat, use spacers to fill in the gaps.

Wall construction should be a minimum of 2" x 4" wood studding and 3/8" or more thick dry wall or plaster/lath. The mounting surfaces must be capable of supporting weight of 110 pounds—the oven and contents—AND the weight of all items which would normally be stored in the top cabinet above the unit.

The unit should be attached to a minimum of one 2" x 4" wall stud.

To find the location of the studs, one of the following methods may be used:

- A. Use a stud finder, a magnetic device which locates the nails in the stud.
- B. Use a hammer to tap lightly across the mounting surface to find a solid sound. This will indicate stud location.

The center of the stud can be located by probing the wall with a small nail to find the edges of the stud and then placing a mark halfway between the edges. The center of any adjacent studs will normally be 16" or 24" to either side of this mark.

**NOTE:** In the event that the unit will be unable to be supported by any stud, it will be necessary to use special care in the placement of the toggle bolts and top cabinet screws. See Wall Template for details. The top cabinet should be tested to ensure it is securely attached to the wall. Place extra weight up to 110 pounds inside the top cabinet to test the support.

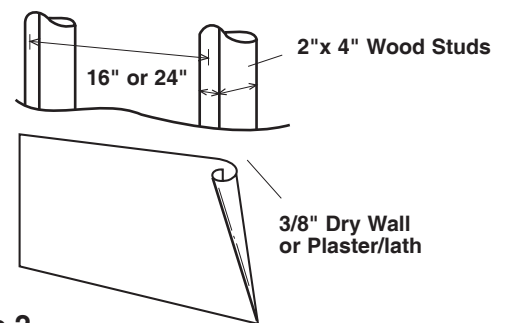


Figure 2

### 3 ELECTRICAL GROUNDING INSTRUCTIONS

This appliance must be grounded. This oven is equipped with a cord having a grounding wire with a grounding plug. It must be plugged into a wall receptacle that is properly installed and grounded in accordance with the National Electrical Code and local codes and ordinances. In the event of an electrical short circuit, grounding reduces risk of electric shock by providing an escape wire for the electric current.

**WARNING** - Improper use of the grounding plug can result in a risk of electric shock.

The oven is equipped with a 3-prong grounding plug. **DO NOT UNDER ANY CIRCUMSTANCES CUT OR REMOVE THE GROUNDING PIN FROM THE PLUG.**

The Power Supply Cord and plug must be connected to a separate 120 Volt AC, 60 Hz, 15 Amp, or more branch circuit, single grounded receptacle. The receptacle should be located inside the cabinet directly above the Microwave Oven/Hood mounting location.

**NOTE:**

1. If you have any questions about the grounding or electrical instructions, consult a qualified electrician or serviceperson.
2. Neither Sharp nor the dealer can accept any liability for damage to the oven or personal injury resulting from failure to observe the correct electrical connection procedures.

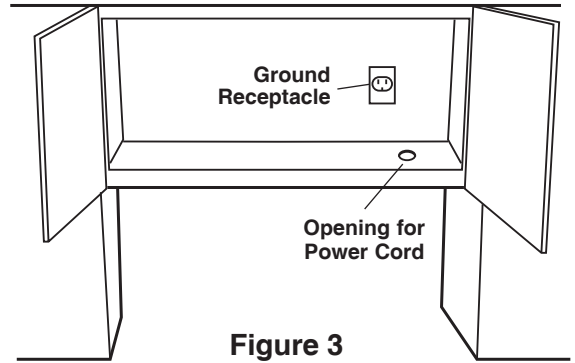


Figure 3

### 4 HOOD EXHAUST DUCT

When the hood is vented to the outside, a hood exhaust duct is required. All ductwork must be metal; absolutely do not use plastic duct. Check that all connections are made securely. Please read the following carefully:

**Exhaust connection:** The hood exhaust has been designed to connect to a standard 31/4" x 10" rectangular duct. If round duct is required, a rectangular-to-round adaptor must be used.

**Rear exhaust:** If a rear or horizontal exhaust is to be used, care should be taken to align the exhaust with the space between the studs, or wall should be prepared at the time it is constructed by leaving enough space between wall studs to accommodate exhaust.

**Maximum duct length:** For satisfactory air movement, the total duct length of 31/4" X 10" rectangular or 6" diameter round duct should not exceed 140 feet.

Elbows, adapters, wall, roof caps, etc. present additional resistance to air flow and are equivalent to a section of straight duct which is longer than their actual physical size. When calculating the total length, add the equivalent lengths of all transitions and adapters plus the length of all straight duct sections. Figure 4 shows the approximate feet of equivalent length of some typical ductwork parts.

Use the values in parentheses for calculating air flow resistance equivalent, which should total less than 140 feet.

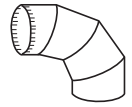

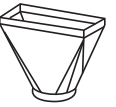
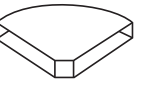


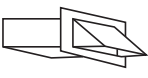

 90° ELBOW (10 FT.)	 45° ELBOW (5 FT.)	 ADAPTOR (5 FT.)	 10" WIDE ELBOW (10 FT.)
 90° ELBOW (25 FT.)	 45° ELBOW (5 FT.)	 WALL CAP (40 FT.)	 ROOF CAP (24 FT.)

Figure 4

### 5 TOOLS RECOMMENDED FOR INSTALLATION

- Phillips Screwdriver
- Electric Drill
- Scissors
- Pencil
- Tape
- 1 1/2" Wood Bit or Metal Hole Cutter (if metal cabinet is used)
- 1/2", 5/8" and 3/32" Drill Bits
- Saw to cut exhaust opening (if needed)
- Measure
- Protective Drop Cloth for product and range—you may also use carton for protection

# 6 INSTALLATION HARDWARE

The following is a list of parts you may need for installing your Over-the-Range microwave oven. You will find the installation hardware contained in a packet with the unit. Check to make sure you have all these parts. Use this time to become familiar with each piece.

Item	Name	Quantity	Parts code
①	Lag screws (1/4" x 1.8")	2	9KC7117604511
②	Toggle Bolts and Nuts 3/16 x 2.7"	2	9KC3516003200 9KC3516003300
③	Cabinet Mounting Bolts 1/4" x 3-1/8	2	9KC7045607011
④	Washer (3/4")	2	9KC3516003100
⑤	Nylon Grommet (for metal cabinets)	1	9KC3517503200
⑥	Damper	1	9KC3515400500
⑦	Mounting Plate	1	9KC351060009300

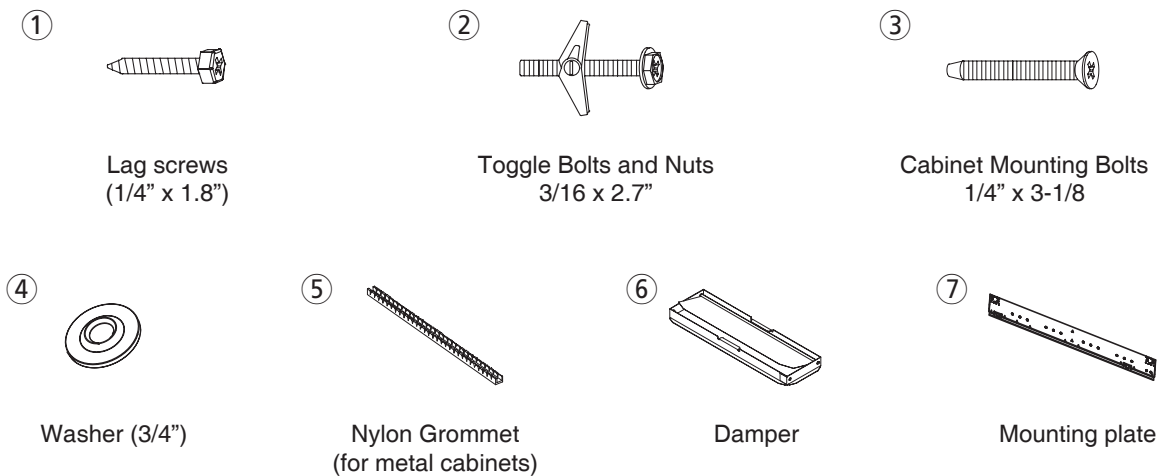


Figure 5

# 7 VENTILATION SYSTEM

This Microwave Oven/Hood System is designed for adaptation to three types of hood ventilation systems. Select the type required for your installation.

## A. RECIRCULATING—Non-Vented, Ductless Operation

The unit is shipped assembled for recirculating.

### NOTE:

1. The Exhaust Damper Assembly is not required for recirculating operation.
2. The Charcoal Filter should be replaced every 6 months, depending on use.
3. The Charcoal Filter is also sold as an accessory. See Operation Manual for ordering information.

## B. Horizontal Ventilation System

### Step 1.

- \* Remove the screws (1) and (2) for opening the blower motor cover and save screws. Remove cover. See Figure 6.

### Step 2.

- \* Remove the screws (3) for Blower attachment and save screws. See Figure 7.
- \* Lift blower unit out of mounting location. See Figure 8.

### CAUTION:

Do not pull or stretch blower wiring.

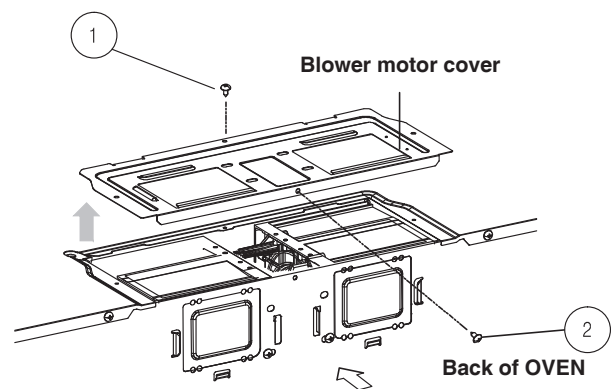
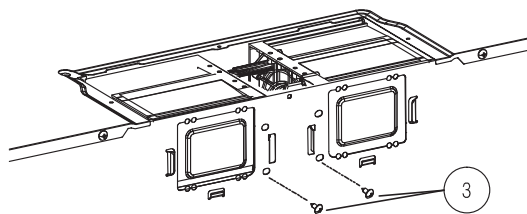


Figure 6



Before : Fan blade openings facing Front

Figure 7

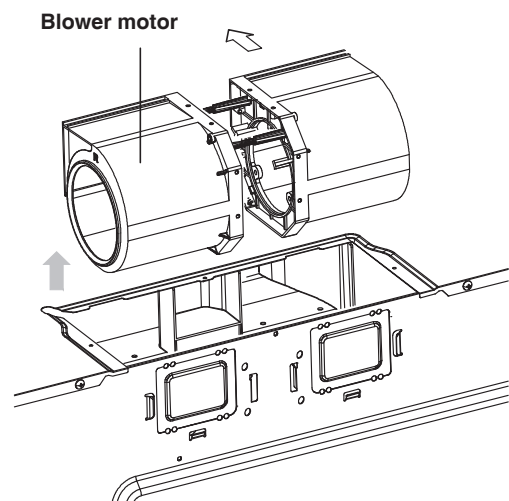


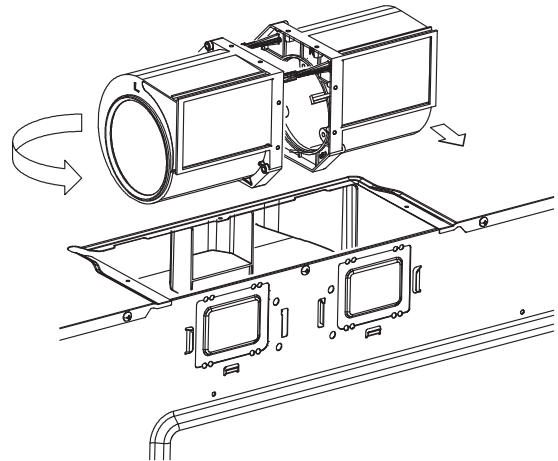
Figure 8

**Step 3.**

Turn the blower unit so that the fan blade openings are facing back ( rear of unit ). See Figure 9.

**CAUTION:** Wires to blower unit must be routed properly to avoid pinching wires before reinstallation of cover plate.

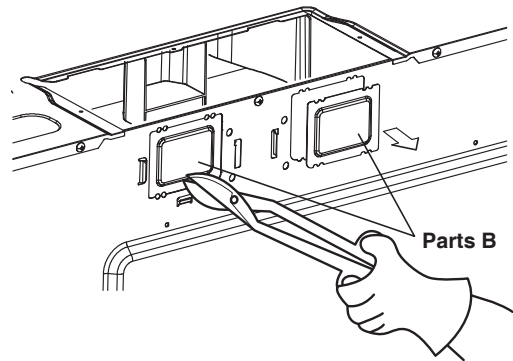
After : Fan blade openings facing Rear



Turn the blower motor clockwise 180°

**Figure 9**

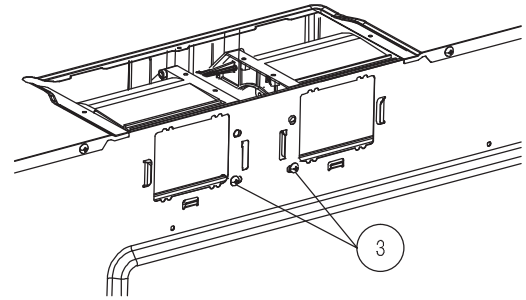
Use side cutters or tin snips to cut and remove parts B from back plate. be careful not to distort the plate. See Figure 10.



**Figure 10**

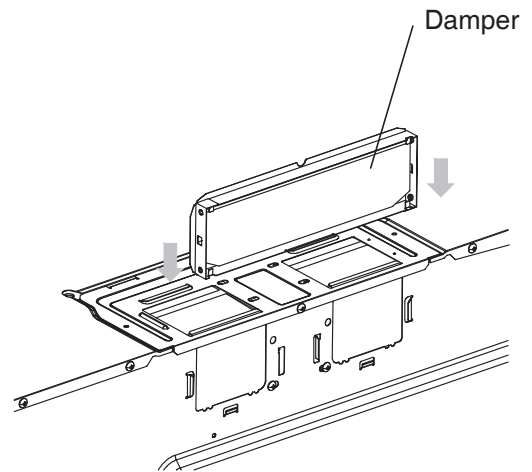
**Step 4.**

Place the blower unit into the opening and secure it to the oven with the screws(3) from step 2. See Figure 11.



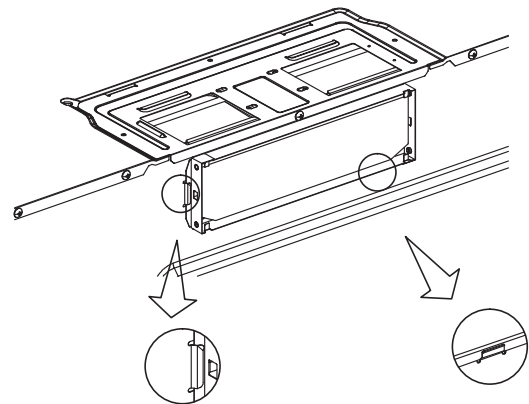
**Figure 11**

Carefully match the exhaust opening location of the microwave and attach the damper to the rear plate by sliding it into the guides at the rear plate. See Figure 12,13.



**Figure 12**

**Be sure that the damper hinge is on the top and the damper swings free into the wall outlet.**



**Figure 13**

### C. Vertical Ventilation System

The unit is shipped assembled for recirculating.

#### Step 1 and 2.

A-1 Ventilation motor.

See Figure 8

#### Step 3.

Turn the blower unit so that the fan blade openings are facing upward.

See Figure 14

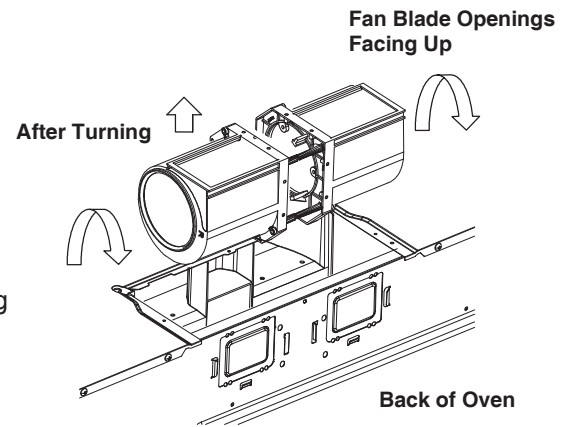


Figure 14

#### Step 4.

Place the blower unit into the opening.

Secure the Case Blow Fan Top, the blower motor and cover to the microwave oven with the screw(1, 2 and 3) from step 1 and 2. See Figure 15.

Carefully match the exhaust opening location of the microwave and attach the damper to blower motor cover by sliding it into the guides at the blower motor cover. See Figure 16, 17.

**Be sure that the damper hinge is on the front and the damper swings free into the wall outlet.**

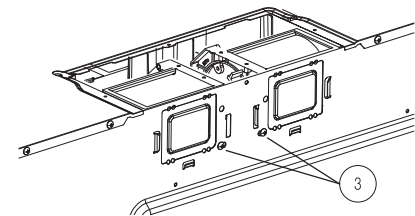


Figure 15

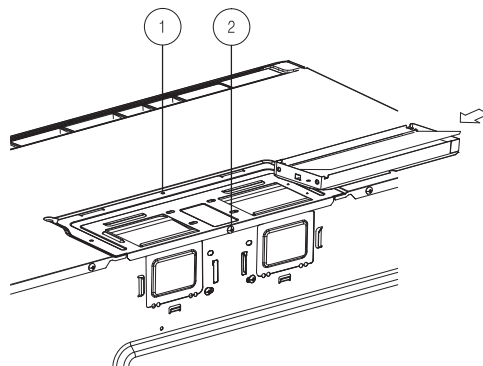


Figure 16

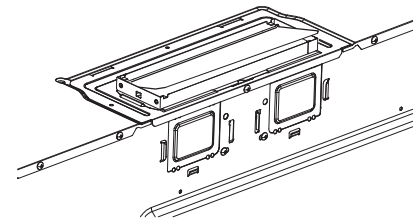


Figure 17

# 8 OVEN INSTALLATION

**THIS OVEN CANNOT BE PROPERLY INSTALLED WITHOUT REFERRING TO THE MOUNTING INSTRUCTIONS FOUND ON BOTH TEMPLATES.**

READ AND FOLLOW MOUNTING INFORMATION ON BOTH TOP CABINET AND WALL TEMPLATES.

## MOUNTING PLATE

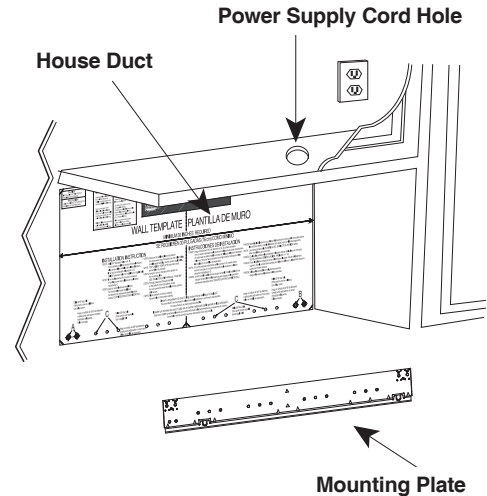
### Step 1. Setup position

- Draw a line down the middle of the studs(See the Wall Construction, page 1)
- Draw a vertical line on the wall at the center of the 30" wide space. See Figure 18.

**NOTE: Use the wall template for the rear wall. Reference Wall Template prior to proceeding. Installation of this product require 2 persons.**

### Step 2. Drilling

Reference the Wall Template.

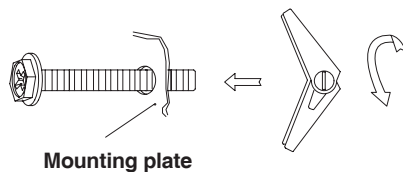


**Figure 18**

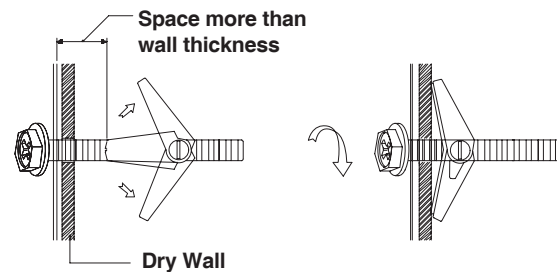
### Step 3. Tightening the screws

To attach the mounting plate to the wall using the toggle bolt assemblies and/or lag screws:

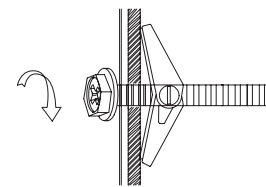
1. Insert toggle bolts through mounting plate at required locations and add the spring loaded toggles. See Figure 19.  
Be sure you leave space at least the thickness of the wall between the mounting plate and the end of the toggle nut, (in closed position). If you do not leave this space, the toggle nut will not open on the other side of the wall.
2. Position mounting plate on wall and insert toggle bolt assemblies through the drywall holes or start the lag-screw(s) through the wall stud(s). See Figure 20.
3. Next, secure mounting plate to the wall by tightening toggle bolt assemblies or lag screw(s). See Figure 21.



**Figure 19**



**Figure 20**



**Figure 21**

4. Drill 3/16" diameter lag screw hole(s), into one or more wall studs.  
(Remember, you must have at least one lag screw into a wall stud.)For stud location refer to WALL CONSTRUCTION see page 3
5. Tighten the lag screw(S) into wall stud(S)



## MOUNTING OVEN TO THE WALL

**NOTE: IT IS VERY IMPORTANT THAT THIS OVEN BE INSTALLED BY TWO PEOPLE.  
IMPORTANT: DO NOT GRIP OR USE HANDLE DURING INSTALLATION.**

### 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 template

**NOTE: TOP CABINET TEMPLATE instruction must be installed to proceed.**

### Step 1.

Protect the top of your range by placing a portion of the carton or some other heavy material over the cooking surface before mounting your oven.

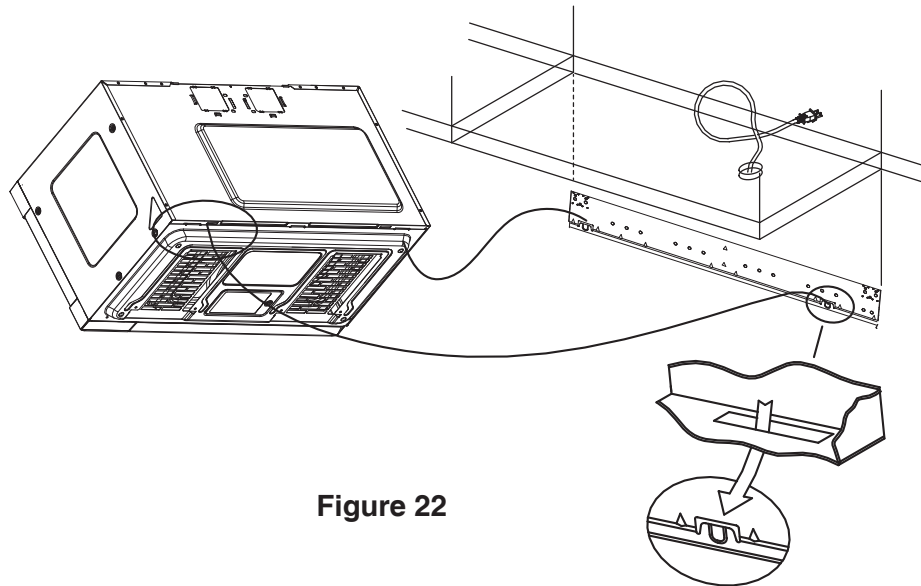


Figure 22

### Step 2.

Lift the microwave oven and tilt it forward.  
Hang the unit on two tabs at the bottom of the mounting plate.  
See Figure 22.

### Step 3.

Thread power cord through the hole at the bottom of the top cabinet.  
Swing the unit upward to meet the top of the mounting plate and hold it securely. See Figure 23.

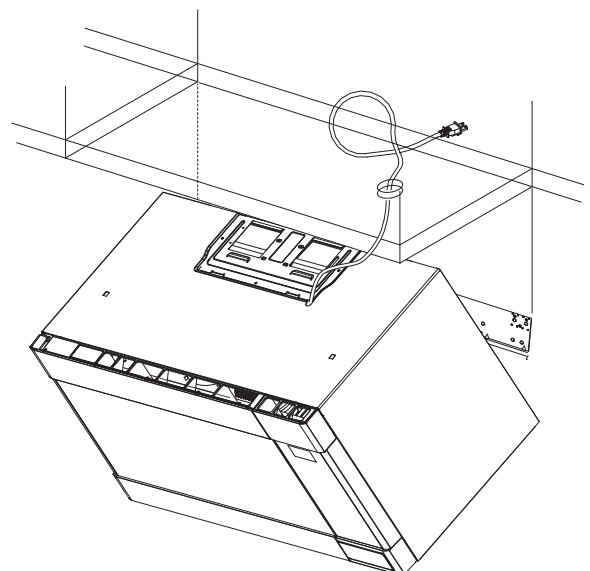


Figure 23

#### Step 4.

Then insert a bolt down through each hole in the upper cabinet bottom.

Tighten the bolts until the gap between the upper cabinet and microwave oven is closed. See Figure 24.

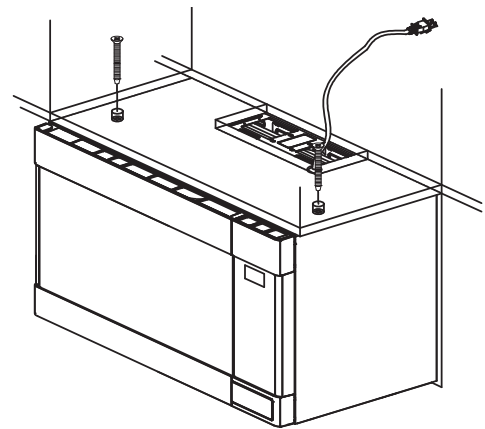
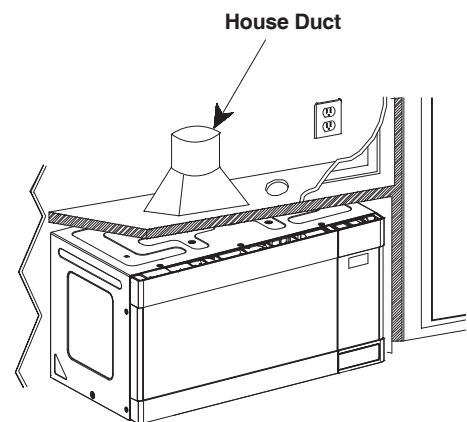


Figure 24

### Connecting Ductwork

Extend the house duct down to connect to the exhaust adapter.

Seal exhaust duct joints using duct tape.



Install the grease filters

Figure 25

### How to replace the Charcoal filter

1. Unplug the oven or turn off the power at the main power supply.
2. Remove the grille air mounting 3 screws and open the door. See Figure 26.
3. Slide the grille air to the left, then pull it straight out.
4. Push the charcoal filter backwards and remove it.
5. Slide a new charcoal filter into place. The filter should rest at the angle. See Figure 27.
6. Replace the grille air and 3 screws and close the door.
7. Plug the oven in or turn on the power at the main power supply.

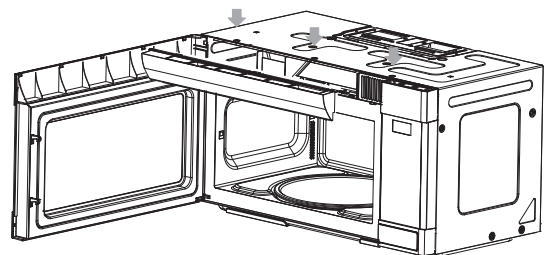


Figure 26

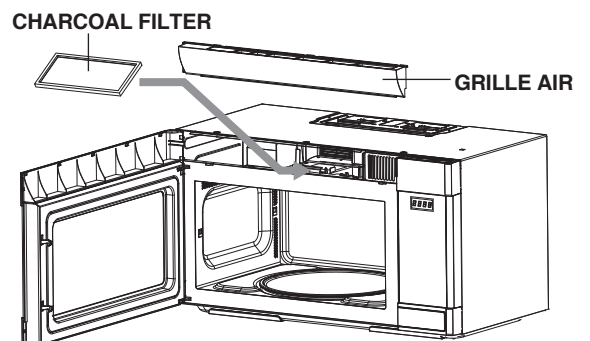


Figure 27

## **CHECK LIST FOR OPERATION**

1. Make sure the unit has been installed according to all of the Installation Instructions, the Top Template and Wall Template.
2. Remove all packing material from the oven.
3. Plug in the power cord.
4. Read the Operation Manual.
5. Keep the Installation Instructions for the local electrical inspector's use.

## **ACCESSORIES**

Check with your dealer or order directly from the SHARP Accessories and Supplies Center.

Call toll-free 1-800-BE SHARP (237-4277).

1. CHARCOAL FILTER (9KC35119-0000700). Filter is used when hood exhaust is recirculated only.

# **SHARP®**

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SHARP ELECTRONICS CORPORATION  
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Models: SMO1652DS / SMO1854DS  
Printed in China.