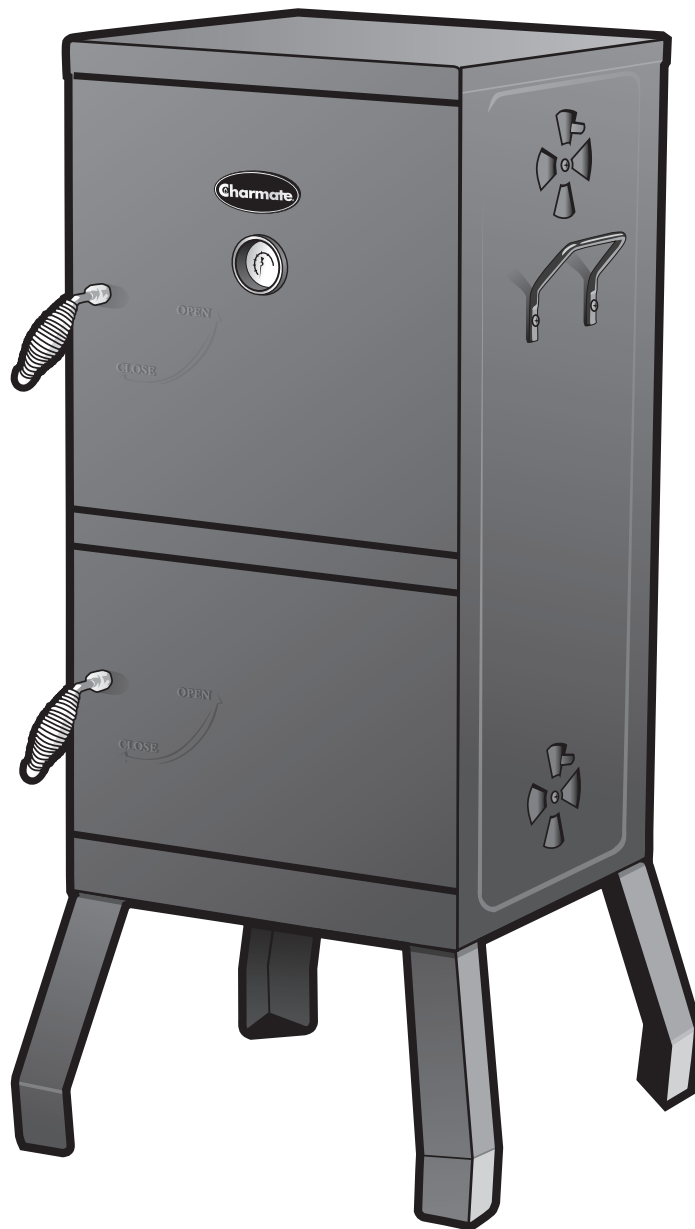


# Charmate®

## Charcoal Smoker Oven



**Model No. CM160-001**

**FOR OUTDOOR USE ONLY**

**Retain these instructions for future use.**

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**Important:** The installer or seller must leave these instructions with the consumer.

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# IMPORTANT SAFETY WARNINGS



WE WANT YOU TO ASSEMBLE AND USE YOUR SMOKER AS SAFELY AS POSSIBLE.

THE PURPOSE OF THIS SAFETY ALERT SYMBOL IS TO ATTRACT YOUR ATTENTION TO POSSIBLE HAZARDS AS YOU ASSEMBLE AND USE YOUR SMOKER.

WHEN YOU SEE THE SAFETY ALERT SYMBOL PAY CLOSE ATTENTION TO THE INFORMATION WHICH FOLLOWS!

READ ALL SAFETY WARNINGS AND INSTRUCTIONS CAREFULLY BEFORE ASSEMBLING AND OPERATING YOUR SMOKER.

- Only use this smoker on a hard, level, non-combustible, stable surface (concrete, ground, etc.) capable of supporting the weight of the smoker. Never use on wooden or other surfaces that could burn.
  - Proper clearance of 10 feet between the smoker and combustible material (bushes, trees, wooden decks, fences, buildings, etc.) or construction should be maintained at all times when smoker is in use. Do not place smoker under a roof overhang or other enclosed area.
  - FOR OUTDOOR USE ONLY. Do not operate smoker indoors or in an enclosed area.
  - For household use only. Do not use this smoker for other than its intended purpose.
  - We recommend the use of a Charcoal Chimney Starter to avoid the dangers associated with charcoal lighting fluid. If you choose to use charcoal lighting fluid, only use lighting fluid approved for lighting charcoal. Carefully read manufacturer's warnings and instructions on the charcoal lighting fluid and charcoal prior to the use of their product. Store charcoal lighting fluid safely away from smoker.
  - When using charcoal lighting fluid, allow charcoal to burn with smoker box door open until covered with a light ash (approximately 20 minutes). This will allow charcoal lighting fluid to burn off. Failure to do this could trap fumes from charcoal lighting fluid in smoker and may result in a flash fire or explosion when smoker box door is opened.
  - Never use charcoal that has been pre-treated with lighter fluid. Use only a high grade plain charcoal or charcoal/wood mixture.
  - Do not use gasoline, kerosene or alcohol for lighting charcoal. Use of any of these or similar products could cause an explosion possibly leading to severe bodily injury.
  - Never add charcoal lighting fluid to hot or even warm coals as flashback may occur causing severe burns.
  - Place smoker in an area where children and pets cannot come into contact with unit. Close supervision is necessary when smoker is in use.
  - Do not leave smoker unattended when in use.
  - When adding charcoal and/or wood, use extreme caution and follow instructions in "Adding Charcoal/Wood During Cooking" section of this manual.
  - To avoid overturning/spilling pan of hot liquid, never pull water pan bracket out more than 4". Refer to the illustration in "Adding Water During Cooking" section of this manual.
  - Do not store or use smoker near gasoline or other flammable liquids, gases or where flammable vapors may be present.
  - Smoker is hot when in use. To avoid burns:
    - DO NOT attempt to move the smoker.
    - Wear protective gloves or oven mitts.
    - DO NOT touch any hot smoker surfaces.
    - DO NOT wear loose clothing or allow hair to come in contact with smoker.
  - Use caution since flames can flare-up when fresh air suddenly comes in contact with fire. When opening the door, keep hands, face and body a safe distance from hot steam and flame flare-ups.
  - Do not allow charcoal and/or wood to rest on the walls of smoker. Doing so will greatly reduce the life of the metal and finish of your smoker.
  - Use caution when assembling and operating your smoker to avoid scrapes or cuts from possible sharp edges of metal parts. Use caution when reaching into or under smoker.
  - In windy weather, place smoker in an outdoor area that is protected from the wind.
  - Never leave coals and ashes in smoker unattended. Before smoker can be left unattended, remaining coals and ashes must be removed from smoker. Use caution to protect yourself and property. Carefully place remaining coals and ashes in a noncombustible metal container and saturate completely with water. Allow coals and water to remain in metal container 24 hours prior to disposing.
  - Extinguished coals and ashes should be placed a safe distance from all structures and combustible and flammable materials.
  - With a garden hose, completely wet the surface beneath and around smoker to extinguish any ashes, coals or embers which may have fallen during the cooking or cleaning process.
  - After each use and the smoker has cooled completely, clean the smoker thoroughly and reapply a light coat of oil to interior to prevent rusting. Cover the smoker to protect it from excessive rusting.
  - Use caution when lifting or moving smoker to prevent strains and back injuries. Moving smoker may require the help of an additional person.
  - We advise that a fire extinguisher be on hand. Refer to your local authority to determine proper size and type of fire extinguisher.
  - Store the smoker out of reach of children and in a dry location when not in use.
  - Properly dispose of all packaging material.
- USE CAUTION AND COMMON SENSE WHEN OPERATING YOUR SMOKER.
- FAILURE TO ADHERE TO SAFETY WARNING AND GUIDELINES IN THIS MANUAL COULD RESULT IN BODILY INJURY OR PROPERTY DAMAGE.
- SAVE THIS MANUAL FOR FUTURE REFERENCE.

# PARTS LIST

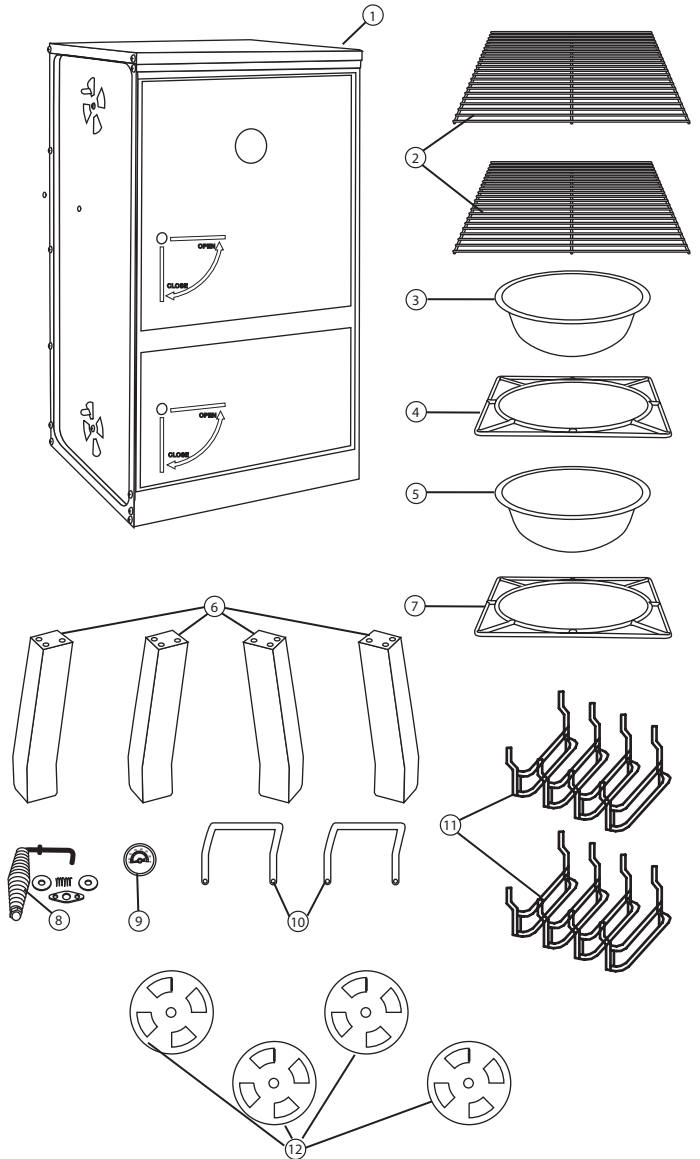
Inspect contents of the box to ensure all parts are included and undamaged.

We recommend two people work together when assembling this unit.

No.	Qty	Description
1	1	Smoker box
2	2	Cooking grills
3	1	Water pan
4	1	Water pan bracket
5	1	Charcoal pan
6	4	Legs
7	1	Charcoal pan bracket
8	2	Door handles with springs, washers and door retaining brackets
9	1	Temperature gauge
10	2	Side handles
11	8	Side rails
12	4	Air vent dampers

## PARTS BAG CONTAINS:

- 20 M6 X 16 mm Phillips head bolts
- 4 M5 X 16 mm Phillips head bolts
- 4 M6 nuts
- 4 Gaskets



## ASSEMBLY INSTRUCTIONS

Before assembling the smoker, read these Instructions carefully.

Assemble the smoker on a flat, clean surface.  
The smoker is heavy.

**NOTE:** Do not fully tighten all the nuts during the initial stages of assembly.

**Caution:** Sheet metal can cause injury. Wear gloves when assembling the smoker.

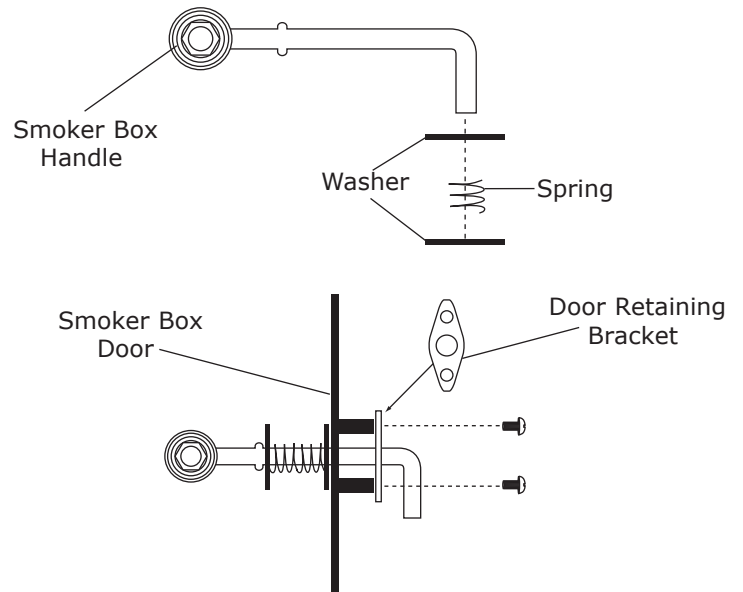
**Tools required:** Philips head screwdriver (or cordless drill and bits).  
Flat head screwdriver.  
Adjustable spanner.

# ASSEMBLY INSTRUCTIONS

## Step 1

Slide washers and spring onto latch end of handle as illustrated. Insert handle through hole in door and slide door retaining bracket over handle. Secure door retaining bracket using two M6 X 16 mm Phillips head bolts. Repeat for other door.

Note: Door handles must be pushed in while turning handles to "CLOSE" position.



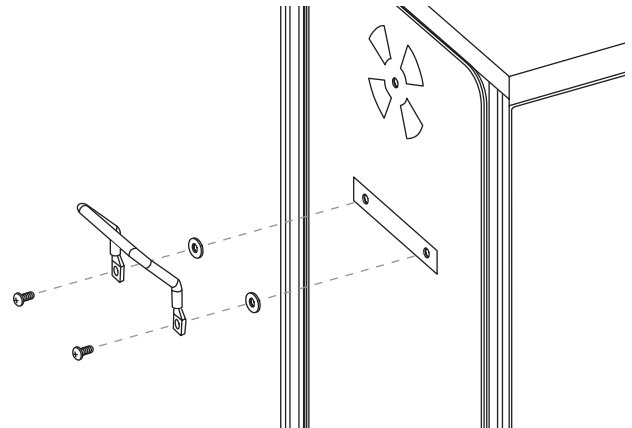
## Step 2

Insert two M5 X 16 mm bolts and gaskets from the outside and thread into holes in the side cabinet as illustrated. Tighten securely. Complete steps for both of the cabinet assembly.



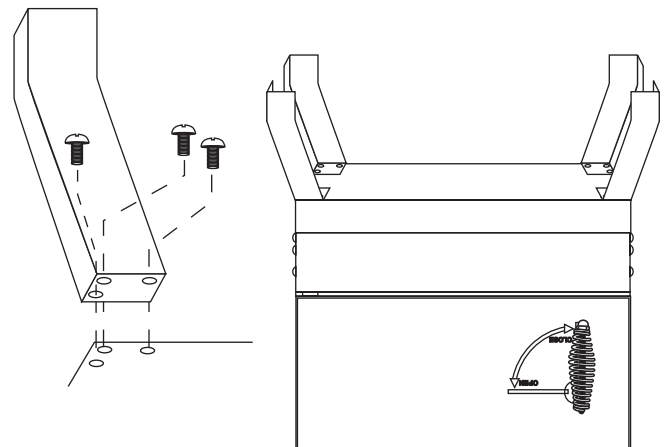
**WARNING:** Use caution when lifting or moving smoker to prevent strains and back injuries. Moving smoker may require the help of an additional person.

Note: With the help of a friend, turn the smoker box upside down. Make sure door is securely latched to avoid injury.



## Step 3

Attach legs to bottom of smoker using twelve M6 X 16 mm Phillips head bolts.



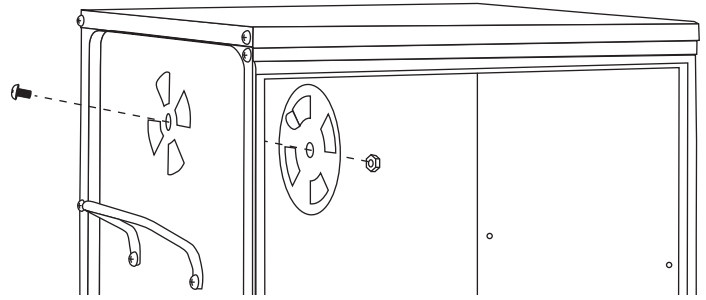
# ASSEMBLY INSTRUCTIONS

## Step 4

**WARNING:** Use caution when lifting or moving smoker to prevent strains and back injuries. Moving smoker may require the help of an additional person.

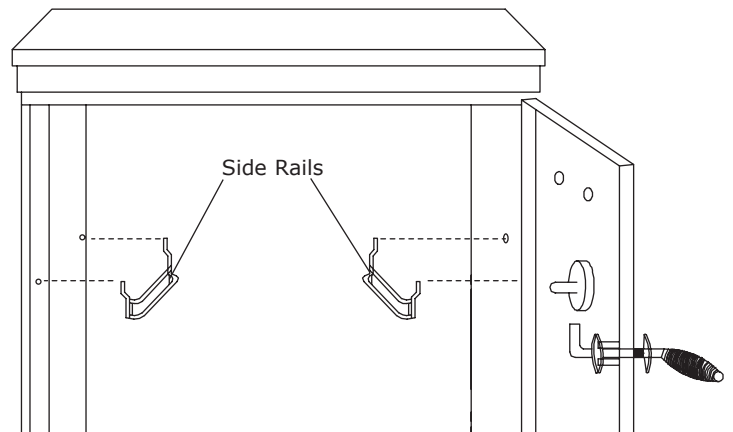
Note: With the help of a friend, turn the smoker box with legs to an upright position.

Attach four air vent dampers to sides of smoker box using four M6 X 16 mm Phillips head bolts and M6 nuts.



## Step 5

Insert eight side rails into smoker box sides. These will form the shelves for the cooking grills and water/charcoal pan brackets.



## Step 6

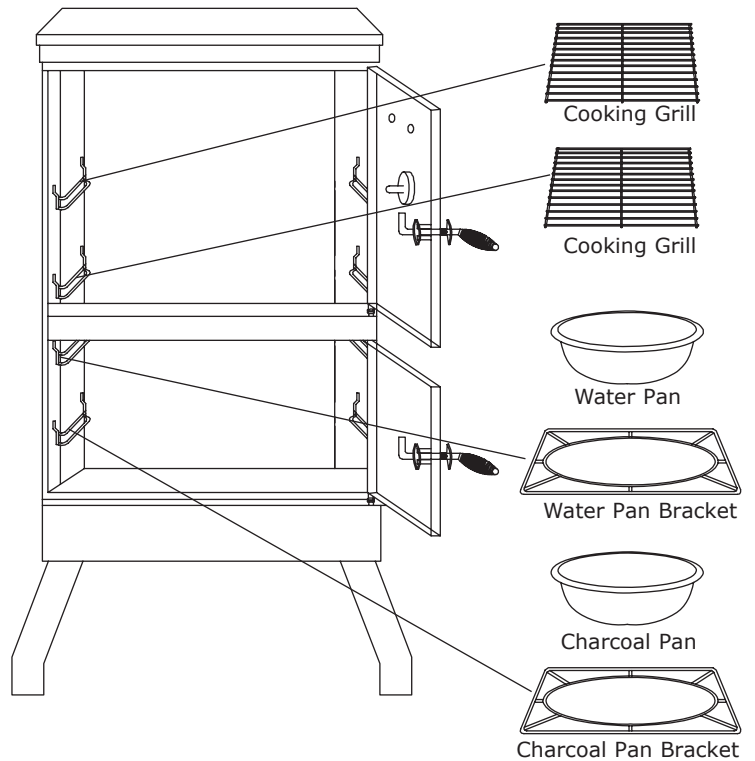
Place the charcoal pan into the charcoal pan bracket. Place the charcoal pan bracket onto the bottom shelves of the smoker box.

## Step 7

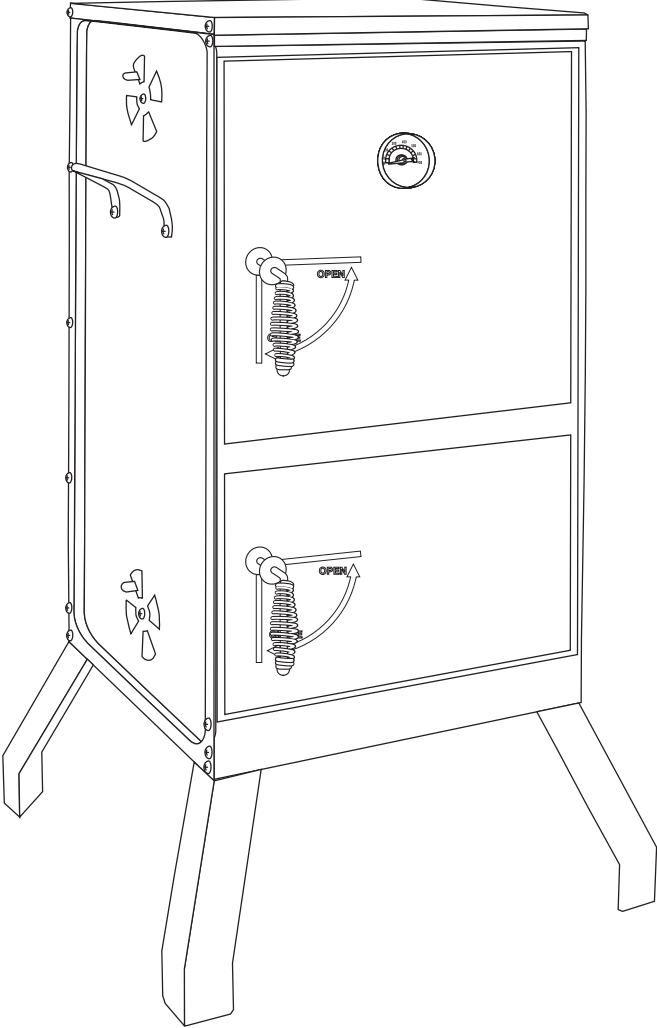
Place the water pan into the water pan bracket. Place the water pan bracket onto the shelves above the charcoal pan.

## Step 8

Place the cooking grills onto the two upper smoker box shelves.



# ASSEMBLY INSTRUCTIONS



Vertical Smoker (assembled)

# PREPARATION FOR USE & LIGHTING INSTRUCTIONS



PLACE THE SMOKER OUTDOORS ON A HARD, LEVEL, NON-COMBUSTIBLE SURFACE AWAY FROM ROOF OVERHANG OR ANY COMBUSTIBLE MATERIAL. NEVER USE ON WOODEN OR OTHER SURFACES THAT COULD BURN. PLACE THE SMOKER AWAY FROM OPEN WINDOWS OR DOORS TO PREVENT SMOKE FROM ENTERING YOUR HOUSE. IN WINDY WEATHER, PLACE THE SMOKER IN AN OUTDOOR AREA THAT IS PROTECTED FROM THE WIND.

READ ALL SAFETY WARNINGS AND INSTRUCTIONS CAREFULLY BEFORE OPERATING YOUR SMOKER.

## Curing Your Smoker

Prior to your first use of the Vertical Smoker, follow the instructions below carefully to cure your smoker. Curing your smoker will minimize damage to the exterior finish as well as rid the smoker of paint odor that can impart unnatural flavors to the first meal prepared on your Vertical Smoker.

**IMPORTANT:** To protect your smoker from excessive rust, the unit must be properly cured and covered at all times when not in use.

1. Remove water pan from smoker. Lightly coat all interior surfaces of the Vertical Smoker including cooking grills with vegetable oil or vegetable oil spray. Do not coat charcoal pan.
2. Follow the instructions below carefully to build a fire. You may use charcoal and/or a charcoal/wood mixture as fuel in the Vertical Smoker (see "Adding Charcoal/Wood During Cooking" section of this manual).



**WARNING:** Never use charcoal that has been pre-treated with lighter fluid. Use only a high grade plain charcoal or charcoal/wood mixture.

If using a Charcoal Chimney Starter, follow all manufacturer's warnings and instructions regarding the use of their product. You will need to remove the lower cooking grills to allow enough clearance for a Charcoal Chimney Starter. Start with 2-3 kgs of charcoal. This should be enough charcoal to cook with, once the curing process has been completed. When charcoal is burning strong, carefully place hot coals in center of charcoal pan then replace cooking grills.

Note: To extend the life of your smoker, make sure that hot coals and wood do not touch the walls of smoker.

## IF USING A CHARCOAL CHIMNEY STARTER, PROCEED TO STEP 5

If you choose to use charcoal lighting fluid, ONLY use charcoal lighting fluid approved for lighting charcoal. Do not use gasoline, kerosene, alcohol or other flammable material for lighting charcoal. Follow all manufacturer's warnings and instructions regarding the use of their product. Start with 2-3 kgs of charcoal. This should be enough charcoal to cook with, once the curing process has been completed. Place the charcoal in center of charcoal pan.

3. Saturate charcoal with lighting fluid. With smoker box door open wait 2 to 3 minutes to allow lighting fluid to soak into charcoal. Store charcoal lighting fluid safely away from the smoker.
4. With smoker box door open, stand back and carefully light charcoal. Allow to burn until covered with a light ash (approximately 20 minutes).



**WARNING:** Charcoal lighting fluid must be allowed to completely burn off prior to closing smoker box door (approximately 20 minutes). Failure to do this could trap fumes from charcoal lighting fluid in smoker box and may result in a flash-fire or explosion when door is opened.

5. With coals burning strong, close the smoker door. Allow the charcoal to burn uninterrupted for 2 hours.
6. Increase the temperature on the heat indicator. This can be achieved by adjusting the air vent dampers or by adding more charcoal and/or charcoal/wood mixture (see "Adding Charcoal/Wood During Cooking" section of this manual). Maintain the fire for 1 hour then allow unit to cool completely.

Note: It is important that the exterior of the smoker is not scraped or rubbed during the curing process.

**IMPORTANT:** To protect your smoker from excessive rust, the unit must be cured periodically and covered at all times when not in use.



# OPERATING INSTRUCTIONS

**!** PLACE THE SMOKER OUTDOORS ON A HARD, LEVEL, NON-COMBUSTIBLE SURFACE AWAY FROM ROOF OVERHANG OR ANY COMBUSTIBLE MATERIAL. NEVER USE ON WOODEN OR OTHER SURFACES THAT COULD BURN. PLACE THE SMOKER AWAY FROM OPEN WINDOWS OR DOORS TO PREVENT SMOKE FROM ENTERING YOUR HOUSE. IN WINDY WEATHER, PLACE THE SMOKER IN AN OUTDOOR AREA THAT IS PROTECTED FROM THE WIND.

READ ALL SAFETY WARNINGS AND INSTRUCTIONS CAREFULLY BEFORE OPERATING YOUR SMOKER.

## Smoking

1. Remove water pan bracket and water pan from smoker. Follow instructions below carefully to build a fire. You may use charcoal and/or charcoal/wood mixture as fuel in the Vertical Smoker (see "Adding Charcoal/Wood During Cooking" section of this manual).

**!** **WARNING:** Never use charcoal that has been pre-treated with lighter fluid. Use only a high grade plain charcoal or charcoal/wood mixture.

If using a Charcoal Chimney Starter, follow all manufacturer's warnings and instructions regarding the use of their product. You will need to remove the lower cooking grills to allow enough clearance for a Charcoal Chimney Starter. Start with 2-3 kgs of charcoal. When charcoal is burning strong, carefully place hot coals in center of charcoal pan and replace cooking grills.

Note: To extend the life of your smoker, make sure that hot coals and wood do not touch the walls of smoker

### IF USING A CHARCOAL CHIMNEY STARTER, PROCEED TO STEP 4

If you choose to use charcoal lighting fluid, ONLY use charcoal lighting fluid approved for lighting charcoal. Do not use gasoline, kerosene, alcohol or other flammable material for lighting charcoal. Follow all manufacturer's warnings and instructions regarding the use of their product. Place 2-3 kgs of charcoal on charcoal pan.

2. Saturate charcoal with lighting fluid. With smoker box door open wait 2 to 3 minutes to allow lighting fluid to soak into charcoal. Store charcoal lighting fluid safely away from the smoker.
3. With smoker box door open, stand back and carefully light charcoal and allow to burn until covered with a light ash (approximately 20 minutes). Charcoal lighting fluid must be allowed to completely burn off prior to closing smoker box door.

**!** **WARNING:** Failure to do this could trap fumes from charcoal lighting fluid in smoker box and may result in a flash-fire or explosion when door is opened.

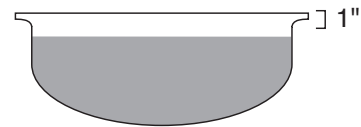
4. With coals burning well, carefully add wood chunks using long cooking tongs (see "Flavoring Wood" and "Adding Charcoal/Wood During Cooking" sections of this manual.)

Note: Depending on the weather, a full pan of charcoal will burn for 5-6 hours.

5. Replace the water pan bracket and water pan.

**!** **WARNING:** To avoid overturning/spilling pan of hot liquid, never pull water pan bracket out more than 4". Refer to the illustration in "Adding Water During Cooking" section of this manual.

6. Carefully fill the water pan with warm water or marinade to 1" below the rim. A full pan holds 4 quarts/ 1 gallon of water and will last 2-3 hours. Do not overfill and allow water to overflow from water pan.



7. Place food on the cooking grills in a single layer with space between each piece. This will allow smoke and moist heat to circulate evenly around all pieces. Close smoker box door.
8. After 2-3 hours of cooking, check water and charcoal levels by following instructions in the "Adding Water During Cooking and Adding Charcoal/Wood During Cooking" sections of this manual.

**!** **WARNING:** Do not allow liquid in water pan to completely evaporate. Always keep water in water pan as long as coals are still burning. Water will evaporate and grease in water pan can catch on fire.

9. The ideal smoking temperature is between 175°F and 250°F. For large cuts of meat, allow approximately one hour of cooking time per pound of meat. **Always use a meat thermometer to ensure food is fully cooked before removing from smoker.**
10. Allow smoker to cool completely, then follow instructions in the "After-Use Safety" and "Proper Care & Maintenance" sections of this manual.

## Smoker Cooking Tips

During the smoking process, avoid the temptation to open smoker box door to check food. Opening the door allows heat and smoke to escape, making additional cooking time necessary.

Food closest to the charcoal will cook and brown faster. Rotate food midway through the cooking cycle. If food is excessively browned or flavored with smoke, wrap food in aluminum foil after the first few hours of smoking. This will allow food to continue cooking without further browning or smoke flavoring.

**CAUTION:** Always use oven mitts/gloves to protect your hands. Liquid in water pan will be extremely hot and can scald or burn. Always allow liquid to cool completely before handling. Do not allow liquid to completely evaporate from water pan.



# OPERATING INSTRUCTIONS

## Flavoring Wood

To obtain your favorite smoke flavor, experiment by using chunks, sticks or chips of flavor producing wood such as manuka, apple or cherry. Most fruit or nut tree wood may be used for smoke flavoring. Do not use resinous wood such as pine as it will produce an unpleasant taste.

Wood chunks or sticks 3" to 4" long and 1" to 2" thick work best. Unless the wood is still green, soak the wood in water for 30 minutes or wrap each piece in foil and tear several small holes in the foil to produce more smoke and prevent the wood from burning too quickly. A lot of wood is not required to obtain a good smoke flavor. A recommended amount for the Vertical Smoker is 5 to 6 wood chunks or sticks. Experiment by using more wood for stronger smoke flavor or less wood for milder smoke flavor.

Additional flavoring wood should not have to be added during the cooking process. However, it may be necessary when cooking very large pieces of food. Follow instructions and cautions in the "Adding Charcoal/Wood During Cooking" section of this manual to avoid injury while adding wood.

## Regulating Heat

To maintain or increase temperature, fully open air vent dampers on sides of smoker box. If increased air circulation does not raise the temperature sufficiently, more wood and/or charcoal may need to be added during the cooking cycle. Follow instructions in "Adding Charcoal/Wood During Cooking" section of this manual.

Note: Dry wood burns hotter than charcoal, so you may want to increase the ratio of wood to charcoal to increase the cooking temperature. Hardwood such as oak, hickory, mesquite, fruit and nut wood are an excellent fuel because of their burning rate. When using wood as fuel, make sure the wood is seasoned and dry. DO NOT use resinous wood such as pine as it will produce an unpleasant taste.

## Adding Water During Cooking

Check the water level in water pan if the complete cooking process takes longer than 2 hours. A low water level can be detected by listening for the sound of water sizzling. Water can be added to the water pan through the smoker box door. Use caution and follow instructions carefully.

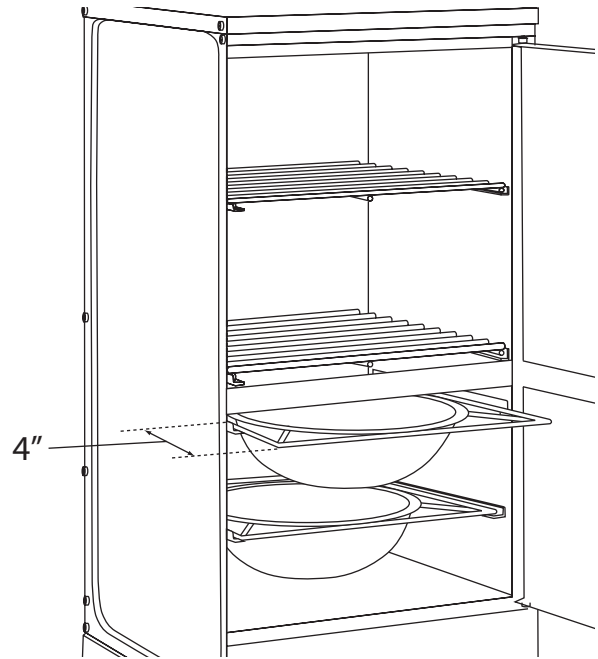


**WARNING:** Use caution since flames can flare-up when fresh air suddenly comes in contact with fire. When opening the door, keep hands, face and body a safe distance from hot steam and flame flare-ups.

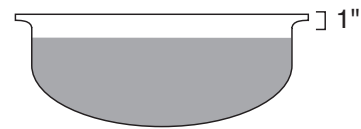
1. Stand back and carefully open smoker box door allowing heat and steam to escape away from your face. Use caution since flames can flare-up when fresh air suddenly comes in contact with fire. Inspect the water level in pan.
2. If water level is low, extra water or marinade will need to be added to water pan. Wearing oven mitts/gloves, slide out water pan bracket no more than 4".



**WARNING:** To avoid overturning/spilling pan of hot liquid, never pull water pan bracket out more than 4". (See illustration)



3. Fill water pan to 1" below the rim. Pour slowly to avoid splashing or over-filling.



4. Carefully slide water pan bracket in completely, close smoker box door and allow food to continue cooking.

## Adding Charcoal/Wood During Cooking

Additional charcoal and/or wood may be required to maintain or increase cooking temperature.



**WARNING:** Use caution since flames can flare-up when fresh air suddenly comes in contact with fire. When opening the door, keep hands, face and body a safe distance from hot steam and flame flare-ups.

1. Stand back and carefully open smoker box door allowing heat and steam to escape away from your face. Use caution since flames can flare-up when fresh air suddenly comes in contact with fire. Inspect the charcoal level in pan.
2. Wearing oven mitts/gloves, stand back a safe distance and use long cooking tongs to lightly brush aside ashes on hot coals. Use cooking tongs to add charcoal and/or wood to charcoal pan, being careful not to stir-up ashes and sparks. If necessary, use your Charcoal Chimney Starter to light additional charcoal and/or wood and add to existing fire.



**WARNING:** Never add charcoal lighting fluid to hot or even warm coals as flashback may occur causing severe burns.

3. Close smoker box door and allow food to continue cooking.

## AFTER-USE SAFETY



- Always allow smoker and all components to cool completely before handling.
- Never leave coals and ashes in smoker unattended. Make sure coals and ashes are completely extinguished before removing.
- Before smoker can be left unattended, remaining coals and ashes must be removed from smoker. Use caution to protect yourself and property. Place remaining coals and ashes in a non-combustible metal container and completely saturate with water. Allow coals and water to remain in metal container 24 hours prior to disposing.
- Extinguished coals and ashes should be placed a safe distance from all structures and combustible materials.
- With a garden hose, completely wet surface beneath and around the smoker to extinguish any ashes, coals or embers which may have fallen during the cooking or cleaning process.
- Cover and store smoker in a protected area away from children and pets.

## PROPER CARE & MAINTENANCE

- Cure your smoker periodically throughout the year to protect against excessive rust.
- To protect your smoker from excessive rust, the unit must be properly cured and covered at all times when not in use.
- Wash cooking grills and water pan with hot, soapy water, rinse well and dry. Lightly coat grills with vegetable oil or vegetable oil spray.
- Clean inside and outside of smoker by wiping off with a damp cloth. Apply a light coat of vegetable oil or vegetable oil spray to the interior surface to prevent rusting. Do not coat charcoal pan.
- If rust appears on the exterior surface of your smoker, clean and buff the affected area with steel wool or fine grit emery cloth. Touch-up with a good quality high-temperature resistant paint.
- Never apply paint to the interior surface. Rust spots on the interior surface can be buffed, cleaned, then lightly coated with vegetable oil or vegetable oil spray to minimize rusting.

## RECIPE IDEAS

### Smoked Chicken

1 chicken  
50ml olive oil  
Juice of one lemon  
Salt & Pepper

Mix the olive oil and lemon juice together in a cup or ramekin and then use a meat injector to inject into the breast and the thighs. Use the last few drops of the mix to rub over the skin and then sprinkle with salt and pepper. Load the chicken onto the cooking rack and place it in the smoker at 110°C or 225°F for 60 minutes per .5 kilo.

It's important to make sure the chicken is properly cooked so ensure the juices run clear when a skewer is placed in the meat or use a thermometer. Breast meat should be at 165°F and thigh meat at 175°F.

### Smoked Herbed Chicken

1 (approx. 2 kilos) whole chicken  
45 g butter  
4 g chopped fresh parsley  
6 g chopped fresh oregano  
3 g chopped fresh basil  
3 g fresh chives, finely chopped

Preheat outdoor Smoker oven for low heat. Using hickory is a great option if you want to add additional flavour to the chicken.

Rinse chicken inside and out and pat dry. Loosen skin around the breast area.

Place three tablespoons of butter in various places under the skin. Mix herbs together and place half under the skin and the other half inside the chicken.

Cook chicken in Smoker oven for 4 hours or until juices run clear when poked with a fork.

### Manuka Smoked Trout

120 g x 4 portions Trout  
Brown sugar  
Salt & Pepper  
2 handfuls Manuka chips  
Coriander

Fillet trout taking care to remove all bones. Tie 2 fillets together at a time with string, having placed a sprig of coriander inside each. Sprinkle trout with the brown sugar, salt and pepper. Place Manuka wood chips into Smoker oven and place seasoned fish onto the grill above the chips.

Starting with a high heat to get a strong scent of Manuka, then turning down to allow a slow consistent cooking with the Manuka smoke. This results in a beautiful caramel colour and tender pink centres. When cooked, remove string and serve as required.

### Smoked Mussels

Steam required quantity of mussels open. Marinate in sweet chilli sauce for 4 – 24 hours with a little brown sugar added. Smoke for approximately 20 minutes.

### Smoked Mushrooms

4 cups mushrooms  
2 tablespoons lemon pepper  
2 tablespoons garlic powder

Cut mushroom stems off and wash. Sprinkle lemon pepper and garlic powder lightly over mushrooms. Smoke at 225°F for 45 minutes. Cool; serve immediately.

### Smoked Corn on the Cob

6 to 12 ears of corn with husks on  
1/2 cup olive oil  
1 bunch finely chopped green onions (including tops)

Gently pull back the husks on the each ear. Remove the silk but not the husks. Place the ears in a large pot and cover with water. Let sit for several hours.

Remove from water and brush each ear of corn with olive oil, then sprinkle about 2 teaspoons green onion over. Cover corn with husks. Repeat with each ear of corn.

Prepare smoker. The ears of corn will need to smoke at 225°F for about 1 1/2 hours.

When done smoking, remove husks and eat.

## SAFE APPLIANCE LOCATIONS

This appliance shall only be used in an above ground open-air situation with natural ventilation, without stagnant areas, where gas leakage and products of combustion are rapidly dispersed by wind and natural convection.

### Any enclosure in which the appliance is used shall comply with the following:

An enclosure with walls on all sides, but at least one permanent opening at ground level and no overhead cover (see Example 1).

Within a partial enclosure that includes an overhead cover and no more than two walls (see Example 2 & 3).

### Within a partial enclosure that includes an overhead cover and more than two walls, the following will apply:

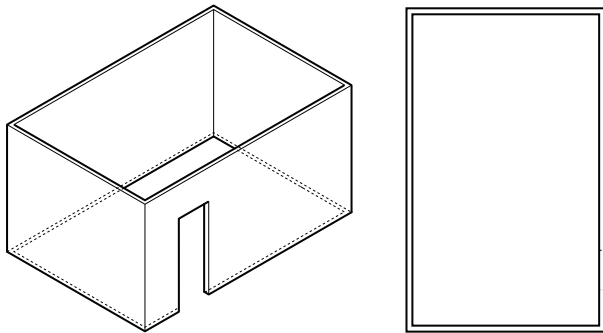
at least 25% of the total wall area is completely open, and

at least 30% of the remaining wall area is open and unrestricted (see Example 4 & 5).

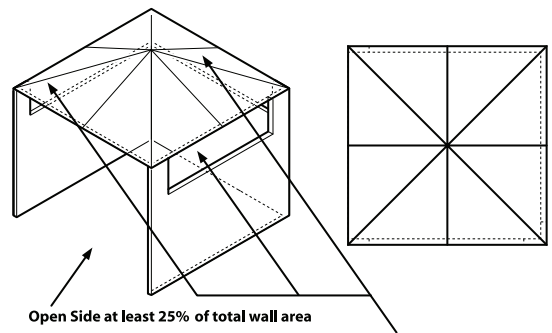
**In the case of balconies, at least 20% of the total wall area shall be and remain open and unrestricted.**

## DIAGRAMMATIC REPRESENTATIONS OF OUTDOOR AREAS

The following figures are diagrammatic representations of outdoor areas. Rectangular areas have been used in these figures – the same principles apply to any other shaped area.



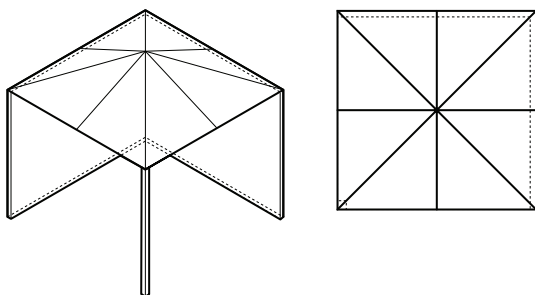
Outdoor Area - Example 1



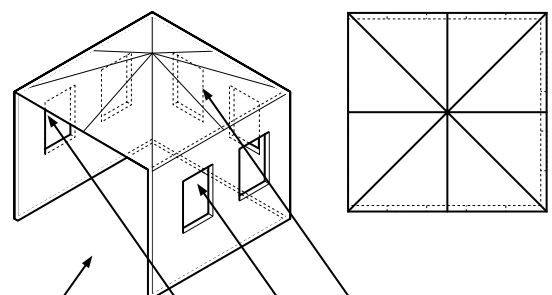
Open Side at least 25% of total wall area

30% or more in total of the remaining wall area is open and unrestricted

Outdoor Area - Example 4



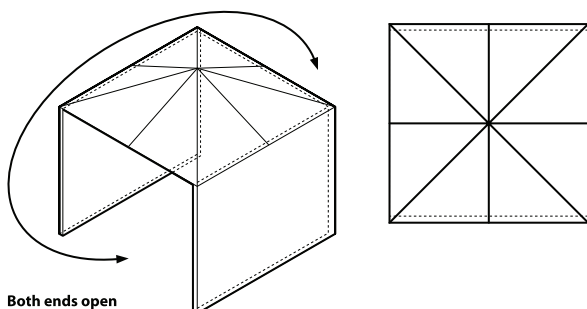
Outdoor Area - Example 2



Open Side at least 25% of total wall area

30% or more in total of the remaining wall area is open and unrestricted

Outdoor Area - Example 5



Both ends open

Outdoor Area - Example 3