

# **Commercial Food Dehydrator**



Models: FK-02

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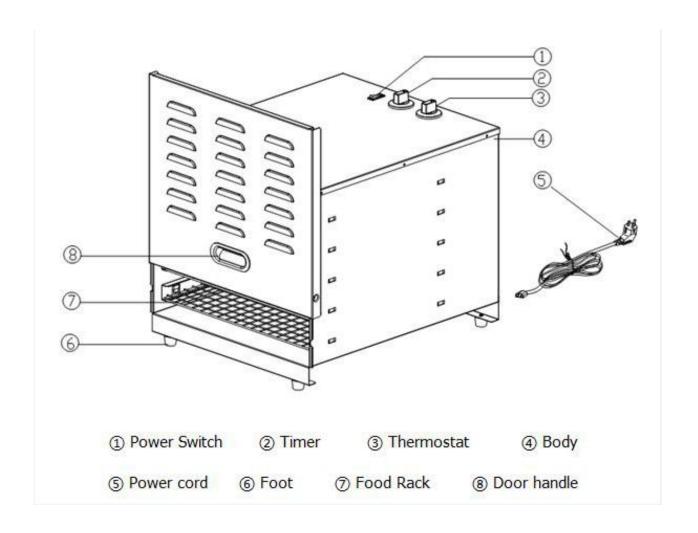
# IMPORTANT SAFETY INFORMATION

# When using electrical appliances, basic safety precautions should always be followed, including the following:

- 1. Read all instructions carefully and completely.
- **2.** For commercial use only.
- 3. Do not touch hot surfaces.
- **4.** Protect against electrical shock by keeping all cords, plugs, and other electrical components away from water or other liquids.
- 5. Unplug this unit when not in use and before cleaning.
- **6.** Allow the unit to cool before putting on or taking off parts.
- 7. Do not operate this or any appliance with a damaged electrical cord or plug.
- 8. Do not operate this or any appliance after it has malfunctioned or been damaged in any way.
- **9.** Do not use outdoors.
- **10.** Do not place on or near a hot gas or electric burner.
- 11. Attach plug to appliance first, then plug electrical cord into the wall outlet.
- **12.** Disconnect the unit by turning the power switch to "OFF", then removing the electrical plug from the wall outlet.
- **13.** Do not use appliance for any application other than intended use.
- **14.** Do not insert metal utensils or oversized foods into this unit as they may cause a fire and heighten the risk of electrical shock.
- **15.** Do not store any item on top of this unit when in operation.
- **16.** Do not allow this dehydrator to touch or be covered by flammable material, such as curtains, draperies, walls, etc., when in operation.
- **17.** Do not clean with metal scouring pads as pieces can break off and touch electrical components, heightening the risk of electrical shock
- **18.** Never place materials such as paper, cardboard, plastic, etc. in this dehydrator.
- 19. Do not cover interior of this unit with metal foil as it may cause the dehydrator to overheat.
- **20.** Avoid scratching the surface or nicking the edges of this unit. Do not put the slim or sharp articles beyond the net interior, it may choke the fan and cause product failure.
- 21. Turn the appliance off by turning the power switch button to the "OFF" position.
- 22. Note that the use of accessories not recommended by the manufacturer may result in injury.
- 23. Children should be supervised to ensure that they do not play with the dehydrator.
- **24.** This appliance is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- **25.** When using the appliance in shops, snack bars, hotels etc., check the voltage and outlet to make sure the appliance is correctly connected with power.
- 26. Place unit on a flat surface that is well ventilated.

### NOTE: Save these instructions for future reference.

# **IDENTIFICATION OF KEY PARTS**



### BEFORE USING YOUR DEHYDRATOR

Before dry anything in your dehydrator for the first time, please follow these simple instructions:

Using a small amount of detergent, wash the handle and food racks with soapy water. (NOTE: Do not use a spray or abrasive polishing agent.) Gently wipe down interior walls with a damp cloth. While washing this unit, do not to touch the electric heating element and fan. Do not soak the inside of the dehydrator with water.

After washing and thoroughly drying the surfaces noted above, place the food racks back inside the dehydrator.

Cover the dehydrator and preheat it to its highest temperature setting for 5 minutes.

Turn off the heating elements and open the dehydrator front panel in order to remove any smoky residue from inside the dehydrator. The heating elements are well lubricated and this initial use will help burn off the extra grease. A light amount of smoke is normal during this process.

### **USING YOUR DEHYDRATOR**

To start your dehydrator, you need to turn the power switch on, the unit will be powered then. Turn on the timer to set a time, the fan start working. Then turn on the thermostat dial to set a disired temperature, the heating element start heating.

CAUTION: During the dehydrating process, make sure that no metal accessory comes in contact with the electric fan and heating elements.

CAUTION: Foods dehydrated in this unit will be hot. Wear protective hand coverings when reaching into dehydrator to retrieve food.

## TYPICAL OPERATION SEQUENCE

ACTION	RESULT		
Plug in your dehydrator	Power is connected but power light will go on after turning the power switch button		
Turn on the timer dial	Convection fan start working		
Turn on the thermostat dial	Heating element stat working		
Timer reaches zero	Timer chimes		
Unload dehydrator	Product will be dehydrated/hot; use caution removing it from the dehydrator		

#### **TIMER**

The range of the timer on this unit is 0-12 hours. Turning the timer to the "OFF" position, the dehydraing time is over and the timer will "ding" to alert.

If you need to reset the dehydrating time while the dehydrator is in operation, simply turn the timer to a new position. The dehydrator will reset the time according to the revised requirement without needing to be turned off.

When the set dehydrating time has been reached, the unit will chime and the heating elements will automatically shut off.

### TEMPERATURE CONTROL KNOB

The temperature range of this unit is 85-160 degrees Fahrenheit on 120V models. This thermostatic switch controls the temperature inside the dehydrator and helps to maintain the proper temperature during various dehydrating applications.

### PROTECTION COMPONENT

If the temperature of this dehydrator reaches an unsafe limit, the electrical components will shut off and it will stop operating in order to prevent overheating.

### **CLEANING AND MAINTENAINCE**

To clean, first remove the power cord's plug from the wall outlet. Wait for the dehydrator to cool. Use a damp cloth or sponge to gently wipe down the inside of the unit. Avoid soaking the inside of the dehydrator or washing it in running water as this will cause serious damage to the unit.

### **SPECIFICATIONS**

MODEL#	<b>POWER SUPPLY</b>	DIMENSION	<b>UNIT WEIGHT</b>	SIZE	PLUG
FK-02 120-240V/50-60HZ 1000W	120-240V/50-60HZ	435W x 433D x	13.8kgs. (16.3kgs.	10 raphs	NEMA 5-15
	511H (mm)	shipping)	10 racks	VDE, BS	

### TROUBLE SHOOTING

Problem: The dehydrator does not work after being switched on.

- Make sure dehydrator is plugged in.
- Be sure that the timer is set
- Be sure that the temperature control knob is set.

Problem: There is a metallic sound when the dehydrator is in use.

- Do not attempt to dismantle the dehydrator.
- Contact your service agent right away to examine the fan.

Problem: Food is often over dried or not dried, even when operate according to the recipe.

- Check that the fan motor is operating normally.
- Contact your service agent to examine the temperature control knob.

### PRE-TREATMENT OF FOODS

As with most types of cooking, proper preparation is essential for successful results. Adhering to a few basic guidelines will generally increase the quality of your dried foods and decrease the amount of time necessary to dry them.

Pre-treated foods often taste better and have a better appearance than non-treated foods. There are several methods to pre-treat food to prevent oxidation, which will darken apples, pears, peaches and bananas while drying.

- . Remove any pits, skin, cores or bones.
- . Shred, slice or dice the food uniformly. Slices should be between 0.3-0.6 cm thick. Meats should be cut not more than 1.9 cm thick.
- . IMPORTANT: Before placing the meat in a Dehydrator, it is HIGHLY RECOMMENDED to heat the meat to 71°C), poultry to 74°C, as measured with a food thermometer in an oven BEFORE starting the dehydration process. This step assures that any bacteria present will be destroyed by wet heat. After heating to 71°C, poultry to 74°C, maintain a constant dehydrator temperature of 55-60°C during the drying process. The minimum recommended temperature for drying meats is 63°C. Temperatures below 63°C are NOT recommended.
- . Drying into jerky requires a lot of attention. It must be cleaned and de-boned properly and rinsed thoroughly to ensure that all the blood is washed away.
- . Soak cut fruit in either lemon or pineapple juice for a few minutes before placing out on the Trays.
- . Use an ascorbic acid mix which can be purchased in most health food stores or pharmacies. It may come in either powder or tablet form. Dissolve approximately 2-3 tablespoons into 1 liter of water. Soak the fruit slices into the solution for 2-3 minutes, then place on the Trays.
- . Fruits with a wax coating (figs, peaches, grapes, blueberries, prunes, etc.) should be dipped in boiling water to remove the wax. This allows moisture to escape easily when dehydrating.

## **MAKING JERKY**

- . Use the best quality meats. Meats, fish and poultry should be lean and fresh. Remove as much fat as possible before dehydrating. Using lean meat will help the meat dry faster and aid in cleanup by decreasing the drippings. Ground meat should be 80% to 90% lean. Ground turkey, venison, buffalo and elk are other excellent choices for jerky.
- . Jerky seasonings are available for all tastes. Whenever making jerky, treat the mixture with cure (sodium nitrate). The cure is used to help prevent botulism during drying at low temperatures.
- . Keep raw meats and their juices away from other foods. Marinate meats in the refrigerator. Do not leave meats un-refrigerated. Prevent cross-contamination by storing dried jerky away from raw meat. Always wash hands thoroughly with soap and water before and after working with meat products. Use clean equipment and utensils.
- . Keep meat and poultry refrigerated at  $5^{\circ}$ C or slightly below; use or freeze ground beef and poultry within 2 days; whole red meats, within 3 to 5 days. Defrost frozen meat bin the refrigerator, not on the counter.
- . Special considerations must be made when using venison or other wild game, as it can become heavily contaminated during field dressing. Venison is often held at temperatures that could potentially allow bacteria to grow, such as when it is being transported. Refer to the USDA Meat and Poultry Department for further questions or information on meat and food safety.
- . IMPORTANT: Before placing the meat in a Dehydrator, it is HIGHLY RECOMMENDED to heat the meat to  $71^{\circ}$ C, poultry to  $74^{\circ}$ C, as measured with a food thermometer in an oven BEFORE starting the dehydration process. This step assures that any bacteria present will be destroyed by wet heat. After heating to  $71^{\circ}$ C, poultry to  $74^{\circ}$ C, maintain a constant dehydrator temperature of  $63-68^{\circ}$ C during the drying process. Temperatures below  $63^{\circ}$ C are NOT recommended.
- . If using a marinade, shake off excess liquid before placing the meat on the Trays.
- . Evenly space the meat in single layers approximately 0.64 cm apart on the Trays.
- . You may need to blot fat droplets from the surface of the meat occasionally using a paper towel.
- . Drying times may vary based on many circumstances including but not limited to: the relative humidity of the room, the temperature of the meat at the beginning of the drying process, the amount of meat in the Dehydrator, the leanness of the meat, etc.
- . Always allow jerky to cool before taste testing to void burns.

# **STORING JERKY**

- . First wrap jerky in aluminum foil or wax paper, then store in a thick plastic food storage bag, metal, glass or plastic containers. Remove as much air as possible before sealing. Seal tightly.
- . Vacuum sealing is ideal for keeping dried foods.
- . Jerky should be stored in a cool, dark, dry place between  $10-16^{\circ}$ C or lower. Jerky can be stored, if properly dried, at room temperature for 1 or 2 months. To extend shelf life to up to 6 months, store jerky in the freezer.
- . Be sure to label and date all packages with contents, ingredients, original weight and date processed.
- . Keep a journal to help improve drying techniques.

### **RE-HYDRATING FOODS**

WARNING! DO NOT soak food at room temperature. Soaking at room temperature allows harmful bacteria to grow. Follow the "Food Safety" guidelines outlined in this manual.

- . Dehydrated food can be re-hydrated by soaking in cold water for 3-5 minutes or for 2-6 hours in the refrigerator in water. Use 1 cup of water for 1 cup of dehydrated food. Once re-hydrated, the food can be cooked normally. Soaking foods in warm water will speed up the process however; it may result in loss of flavor.
- . Do not add seasoning. Adding salt or sugar during re-hydration may change the flavor of the food.
- . To make stewed fruits or vegetables, add 2 cups of water and simmer until tender.
- . Consume dehydrated foods as soon as possible once the storage container is opened. Keep any unused portions in the refrigerator to avoid contamination

### **DRYING FLOWERS & CRAFTS**

- . Flowers should be dry to start with, best of picked after the dew has dried and before the night damp sets in. Dry the flowers as soon as possible after picking.
- . The best condition for drying flowers is a dry, warm, dark, clean and well ventilated area, which makes a dehydrator an ideal setting. Flowers will retain the best color and condition when dried quickly.
- . A low temperature should be used to retain the natural oils. Drying times will vary considerably depending on the size of the flower and the amount of foliage. Dry at  $38^{\circ}$ C.
- . Strip off the leaves or if you prefer to keep the foliage. Discard any brown or damaged leaves.
- . Place on the Tray in a single layer, avoiding overlapping.
- . Dough art and beads can be dried in the Dehydrator. Temperatures may vary.

### **FOOD SAFETY**

There are basic rules to follow when handling food. They are **COOK**, **SEPARATE**, **CLEAN**, and **CHILL**.

#### СООК

It's crucial to cook food to a safe internal temperature to destroy bacteria that is present. The safety of hamburgers and other foods made with ground meat has been receiving a lot of attention lately, and with good reason. When meat is ground, the bacteria present on the surface is mixed throughout the ground mixture. If this ground meat is not cooked to at least  $71^{\circ}$ C to  $74^{\circ}$ C, bacteria will not be destroyed and there's a good chance you will get sick.

Solid pieces of meat like steaks and chops don't have dangerous bacteria like E. coli on the inside, so they can be served more rare. Still, any beef cut should be cooked to an internal temperature of at least  $63^{\circ}$ C (medium rare). The safe temperature for poultry is  $82^{\circ}$ C and solid cuts of pork should be cooked to  $71^{\circ}$ C. Eggs should be thoroughly cooked too. If you are making a meringue or other recipe that uses uncooked eggs, buy specially pasteurized eggs or use prepared meringue powder.

#### **SEPARATE**

Foods that will be eaten uncooked and foods that will be cooked before eating MUST ALWAYS be separated. Cross-contamination occurs when raw meats or eggs come in contact with foods that will be eaten uncooked. This is a major source of food poisoning. Always double-wrap raw meats and place them on the lowest shelf in the refrigerator so there is no way juices can drip onto fresh produce. Then use the raw meats within 1-2 days of purchase, or freeze for longer storage. Defrost frozen meats in the refrigerator, not on the counter.

When grilling or cooking raw meats or fish, make sure to place the cooked meat on a clean platter. Don't use the same platter you used to carry the food out to the grill. Wash the utensils used in grilling after the food is turned for the last time on the grill, as well as spatulas and spoons used for stir-frying or turning meat as it cooks.

Make sure to wash your hands after handling raw meats or raw eggs. Washing hands with soap and water, or using a pre-moistened antibacterial towelette is absolutely necessary after you have touched raw meat or raw eggs. Not washing hands and surfaces while cooking is a major cause of cross-contamination.

#### **CLEAN**

Wash your hands and work surfaces frequently when you are cooking. Washing with soap and warm water for at least 15 seconds, then dry with a paper towel.

#### CHILL

Chilling food is very important. The danger zone where bacteria multiply is between  $4^{\circ}$ C and  $6^{\circ}$ C. Your refrigerator should be set to  $4^{\circ}$ C or below; your freezer should be -17  $^{\circ}$ C or below. Simple rule: serve hot foods hot, cold foods cold. Use chafing dishes or hot plates to keep food hot while serving. Use ice water baths to keep cold foods cold. Never let any food sit at room temperature for more than 2 hours - 1 hour if the ambient temperature is  $32^{\circ}$ C or above. When packing for a picnic, make sure the foods are already chilled when they go into the insulated hamper. The hamper won't chill food - it just keeps food cold when properly packed with ice. Hot cooked foods should be placed in shallow containers and immediately refrigerated sothey cool rapidly. Make sure to cover foods after they are cool.

## **TIPS**

- Use the best quality foods. Fruits and vegetables in peak season have more nutrients and more flavor. Do not use food with bruises or blemishes. Bad fruits and vegetables may spoil the entire batch
- Use the best quality meats. Meats, fish and poultry should be lean and fresh. Remove as much fat as possible before dehydrating. Do not overlap foods. Lay foods flat on the Trays.
- Check dryness after a few hours, then check every two hours until dehydrated. Open or cut down the middle if a few samples to check internal dryness. If the food is still moist, dehydrate longer
- Use the Drying Guide on the Control Panel as reference for proper temperature settings. If the heat is set too high, the food may case harden, meaning the food is dried at too high of a temperature and the food was only dry on the outside, not the inside. If the temperature is too low, the drying time will increase.

Remember, foods will shrink approximately 1/4 to 1/2 their original size and weight during the dehydration process, so pieces should not be kept too small. One pound of raw meat will yield approximately 0.2 kg of jerky.

Do not place items to be dried on the Drip Tray, there will be no circulation of air on this Tray. Clean the Drip Tray periodically during dehydration for easier clean-up.

## **RECIPES**

#### **HAWAIIAN JERKY MARINADE**

5ml salt; 5ml ground ginger; 60ml pineapple juice; 15ml brown sugar; 1ml peper; 0.6ml cayenne peper 1 crushed garlic clove; 60ml soy sauce; 450g lean meat, sliced into 0.3-0.6cm thin strips Follow Marinading Instructions below

#### **CAJUN MARINADE**

240mu tomato juice; 2.5ml garlic powder; 2.5ml ground black peper; 7.5ml dried thyme; 7.5ml dried basil; 7.5ml onion power; 5ml white peper; 10ml cayenne pepper; 450g lean meat, sliced into 0.3-0.6cm thin strips. Follow Marinading Instructions below

#### **HOT JERKY MARINADE**

80ml teriyaki; 10ml brown sugar; 10ml ground black peper; 15ml ground horseradish; 5ml salt; 2.5ml paprika; 2.5ml chili powder; 15ml olive oil; 15ml minced garlic; 1ml tabasco sauce; 30ml seeded&finely chopped jalapeno pepers; 450g lean meat, sliced into 0.3-0.6cm thin strips.

Follow Marinading Instructions below

#### MARINADING INSTRUCTIONS

- · Combine all ingredients, except for the meat in a glass bowl, mix well . Place a layer of meat into a glass baking dish
- . Spoon the sauce mixture over the layer of meat
- . Continue to layer the meat and sauce until the meat is about 3-4 layers deep
- . Cover lightly and place the dish in the refrigerator overnight
- . Stir occasionally to keep the meat coated with marinade
- . Remove the meat from the marinade, removing excess marinade
- . Lay the meat evenly onto the Trays, leaving 0.6 cm space between each strip
- . Follow the "MAKING JERKY" instructions in this manual

#### **APPLE & CREAM FRUIT LEATHER**

6 apples, peeled & cored; 2.5ml cinnamon; 1.5ml sloves; 240ml plain non-fat yogurt; 12ml nutmeg

- . Puree the ingredients in a food processor or blender until smooth
- . Line the Trays with plastic wrap or silicone fruit leather sheets
- . Spread the puree over the lined Trays until it is about 0.6 cm thick (the edges will dry quicker than the center; pour the puree thinner at the center of the Tray)
- . Set the Dehydrator to about 57-63  $^{\circ}$ C for 4-5 hours (a longer drying time may be necessary)
- . Dehydrate until leathery and pliable but not sticky
- . Allow to cool slightly, then serve/store

#### **NOT-SO SUN DRIED TOMATOES**

3150g firm, ripe Roma tomatoes, stemmed & quartered; 5ml dried basil; 5ml dried oregano; 5ml dried oregano; 10ml salt

- . Scrape out all the seed of the tomatoes without removing the pulp
- . Mix the basil, oregano, thyme and salt together
- . Place the tomatoes skin side down onto the Trays
- . Sprinkle the seasoning mixture over the top of the tomatoes
- . Set the Dehydrator to about  $60^{\circ}$ C for 6-9 hours (a longer drying time may be necessary). A few hours through the dehydrating process, gently turn the tomatoes over and press flat with a spatula, repeat this step every few hours until the tomatoes are dried Allow to cool slightly, then serve/store

#### **CHEESY CORN CHIPS**

240ml creamed corn; 15ml chopped onion; 240ml grated sharp cheddar cheese; 120ml diced res & green bell peppers; 0.6ml cayenne pepper; 0.6ml chili powder; salt to taste

- . Puree the ingredients in a food processor or blender until smooth
- . Line the Trays with plastic wrap or silicone fruit leather sheets (sold separately)
- . Spread the puree over the lined Trays in a ring until it is about 0.6 cm thick (the edges will dry quicker than the center; pour the puree thinner at the center of the Tray)
- . Set the Dehydrator to about 55  $^{\circ}\mathrm{C}$  for 10 hours (a longer drying time may be necessary) or until dry on one side
- . Lift the entire corn ring off of the Trays, turn over and dry for 2 more hours or until crisp
- . Break into pieces when done
- . Salt to taste

#### **ORANGE SMOOTHIE ROLLS**

360ml cup applesauce; 1 apple, peeled, cored & chopped; 10ml dried orange ground; 7.5ml vanilla

- . Puree the ingredients in a food processor or blender until smooth
- . Line the Trays with plastic wrap or silicone fruit leather sheets (sold separately)
- . Spread the puree over the lined Trays until it is about 0.6 cm thick (the edges will dry quicker than the center; pour the puree thinner at the center of the Tray)
- . Set the Dehydrator to about 57-63  $^{\circ}$ C for 4-8 hours (a longer drying time may be necessary)
- . Dehydrate until leathery and pliable but not sticky
- . Allow to cool slightly, then serve/store