

BioChef Commercial

20 and 32 Tray Vertical
Dehydrator



USER MANUAL

BIOCHEF

COMMERCIAL

The information in this manual is intended to help you to get the best results from your BioChef 20 and 32 Tray Vertical Commercial Dehydrator. Please read and follow these instructions and safeguards prior to use.

Please keep your manual handy for future reference, warranty information and support details

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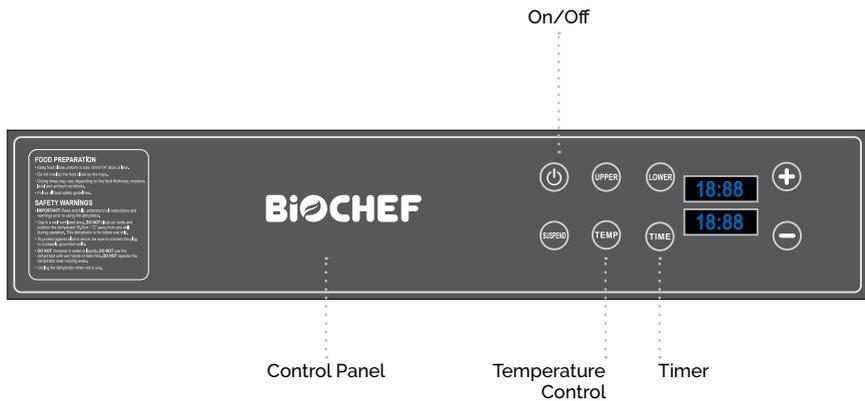
Safety Precautions

- ! Save these instructions for future reference.
- ! Examine the carton and the unit for any damage that may have occurred during shipping. Contact your point of sale to report any damage.
- ! Close supervision is required if the unit will be used around children.
- ! Only for use indoors in a clean, dry location, free of flammable objects.
- ! Do not move the dehydrator while in operation.
- ! Always place the dehydrator on a level surface and at least 30.5cm/12 " away from walls or other appliances.
- ! This unit may scratch household bench surfaces.
- ! Do not use if the power cord or controls have been damaged in any way. Contact Vitality 4 Life before attempting to make any repairs.
- ! Do not use sharp utensils inside the unit.
- ! Turn off the Dehydrator before plugging or unplugging from an electrical outlet.
- ! Leave the Dehydrator unplugged when not in use.
- ! Allow the dehydrator to cool completely before cleaning.
- ! Never immerse the dehydrator or power cord in water or any other liquids.
- ! Never plug the dehydrator into a damaged electrical outlet.
- ! Do not allow the cord to contact the sharp edge of a counter, table or any hot surface.
- ! The use of attachments or accessories not provided with the dehydrator is not recommended and will void the warranty.

IMPORTANT! IT IS IMPORTANT TO MONITOR THE DEHYDRATOR WHILE IN USE. USE IN A WELL VENTILATED AREA.
DO NOT BLOCK THE AIR VENTS at the rear or on the Door of the Dehydrator.

Operation of the Control Panel

20 Tray and 32 Tray Vertical Commercial Dehydrator



How To Set Up Your Dehydrator

1. Plug the dehydrator into power outlet.
2. Follow your recipe to prepare the food that you wish to dehydrate;
3. Using oven mitts, slide the dehydrator trays out of the unit and load the produce to be dehydrated onto the trays. For best results: Do not overlap the produce and be sure to leave space between the items to allow for maximum air circulation.
4. Using both hands for maximum stability, gently slide the dehydrator trays back into the unit;
5. Turn on power to unit.
6. Press the ON / OFF button.
Select UPPER or LOWER to set either one.
Select TEMP to set temperature between 40°-90°C/90°-194°F using + or -
Select TIMER to set drying time of up to 15 hours using + or -
Select SUSPEND to pause the dehydrator if required.

NOTE: Drying times may vary depending on several factors including relative humidity, air temperature and ingredient thickness, temperature and fat content. The actual temperature of the dehydrator is based on the ambient temperature of 21°C/70°F. If the dehydrator is not used in the ambient temperature of 21°C/70°F, the temperature indicated on the Temperature Control Knob may not be achieved/may be exceeded.

Cleaning and Maintenance

WARNING: Before cleaning or servicing the dehydrator, make sure it is unplugged from the power outlet.

Clean the trays and the interior of the cabinet before using the dehydrator for the first time and after each use.

1. Set the Power Switch and the Timer Knob to the OFF position. Disconnect the electrical cord from the power outlet.
2. Allow dehydrator to completely cool before cleaning.
3. Remove the tray from the dehydrator cabinet.
4. Wipe the dehydrator cabinet clean with a damp sponge / washcloth. Do not splash water onto the heating element (located behind the screen inside the cabinet at the back). Water may damage the electrical components and increases the risk of electrical shock.
5. Clean the trays with warm soapy water. Rinse with clean water. Alternatively, trays can be cleaned in a dishwasher.



Dehydrating Food

While most food types can be dehydrated at a temperature of approximately 55°C/131°F, when dehydrating meats, poultry and fish (making jerky, biltong etc) the temperature needs to be raised to guard against pathogens such as Salmonella and E. Coli.

WARNING: It is recommended that meat and poultry be preheated / precooked to at least 70°C/158°F to guard against pathogens before dehydrating at a temperature of between 62-65°C/143-149°F. Fish should be steamed or baked to at least 93°C/200°F until flaky before dehydrating at a temperature of between 62-65°C/143-149°F.

Choosing food to dehydrate

- For best results only use highest quality foods.
- Produce in peak season has more flavour and more nutrients.
- Meats, fish and poultry should be lean and fresh.
- Do not use food with bruises and blemishes. Bad produce can spoil the entire batch.
- Remove as much fat as possible from meats prior to dehydrating. You can use a paper towel under meat when dehydrating to absorb fat.



Tips for pre-treatment of foods

With most types of cooking, preparation is important for the best results. Foods that are prepared correctly prior to dehydration will taste better and have a better appearance.

- Cut, shred or dice the food uniformly. Slices should be between 6mm and 20mm thick. Meats should not be thicker than 5mm.
- To avoid browning of fruits soak cut fruit in lemon or pineapple juice for 2-3 minutes, then place in the dehydrator. Alternatively soak in an ascorbic acid solution (made as per manufacturers instruction) for 2-3 minutes, then place in the dehydrator.
- Waxy fruits, (such as peaches, grapes, blueberries, etc.) should be dipped in boiling water to remove the wax. This allows moisture to escape easily during dehydration.
- Blanching can also be used to pre-treat foods for dehydration.

Preparation of Foods

For best results, select the freshest foods available to dehydrate. Note that immature fruits and vegetables do not have as much colour and flavour as those that are fully matured. Foods should be dehydrated as soon after purchase as possible. Foods high in sugar such as apples, pears, peaches and bananas are prone to darkening due to oxidation of the sugars.

Below are some pre-treatments that will help to reduce this effect:

- **Lemon and pineapple juice** are natural antioxidants. Place the sliced produce in fresh lemon or pineapple juice for a few minutes, remove, drain and place on the dehydrator shelf. For extra flavour, try sprinkling on cinnamon or other spices.
- **Ascorbic acid mix** (a form of vitamin C) is available at most health food stores and is can be used in tablet or powder form. Use about 2-3 tablespoons of powder or ground tablets per litre of water; stir to completely dissolve the powder and place fruit into the solution for 2-3 minutes. Remove, drain and place on the dehydrator shelf.
- **Blanching** is used primarily to prepare fruits and vegetables for dehydrating that have skins that will toughen during drying. This process helps lock in the colour and flavour as well as soften the skin of grapes, cherries, prunes and plums.

There are two blanching methods: water and steam:

- water blanching - Fill a large saucepan about half full of water. Bring the water to a boil and use tongs to place food directly into the water, cover the saucepan and let it simmer for approximately 3 minutes. Remove, drain and place on the dehydrator shelf.
- steam blanching – Using a steamer pot such as one used in Chinese cooking, put 5-8 centimetres of water in a saucepan and bring to a boil. Place the food into the steamer basket, place over the saucepan and cover. Steam food for approximately 5 minutes, then remove and place on the dehydrator shell.
- **Nuts and seeds** – nuts and seeds contain phytic acid and enzyme inhibitors. Phytic acid is biologically necessary, as it helps safeguard the nut or seed until proper growing conditions are present and germination can occur.
 - Prepare your nuts and seeds by soaking them in warm water (filtered is best) and 1 tablespoon of salt to every 2 cups of raw nuts or seeds. This will neutralize many of the enzyme inhibitors and increase the bioavailability of many nutrients, especially B vitamins.
 - Within 7-24 hours (depending on the seed or nut), many of the enzyme inhibitors are broken down.

NOTE: Linseed, Flaxseed and Chia seeds are not suitable for soaking.

Cashews can only be soaked for 3-6 hours as they have already been heated to rid them of the naturally occurring toxic oil, cardol.

- **Grains** - for best results with dehydrating grains you will need to sprout them beforehand, this is especially necessary when making sprouted flour. The sprouting process occurs over a period of 2-3 days, depending on the humidity of the surrounding air, and will involve soaking, draining and rinsing your wheat berries in filtered water every 6-8 hours. You will need to ensure the wheat berries are covered with a mesh or cheesecloth and set at an angle to allow an even circulation of air for fermentation to take place. Once the root tips have grown to 1.5cm the seeds can be spread on the dehydrator trays, using the mesh sheets to prevent them falling through. After the sprouted grain has been dehydrated, you can use a power blender to make fresh sprouted flour.



PLEASE NOTE

There are no exact rules that apply to food dehydration, as results can be affected by room temperature, relative humidity and moisture levels in the food that you are drying. To become proficient it will be necessary to experiment with your drying techniques. If you use too much heat, food may harden on the outside while being moist inside; however, with too little heat your drying times will be very long. With a little practice you will be creating tasty, ready to eat snacks in no time.

Dehydrating Tips

- Do not overlap foods. Make sure foods are flat when placing on dehydrating trays. Overlapped foods can greatly increase drying time.
- Make sure foods are completely dry before removing. If you are not sure, cut a sample down the middle to check for internal dryness.
- Make sure to label containers when you store your dehydrated food.
- Proper storage helps maintain quality food. Package the food when cool. Foods can be kept longer if stored in a cool, dark and dry place. The ideal storage temperature is 16°C/61°F or lower.
- Vacuum sealing is a great way to keep dehydrated foods.
- Food will shrink approximately $\frac{1}{4}$ to $\frac{1}{2}$ their original size and weight during dehydration. Make sure not to cut pieces of food too small.

Food Storage

Dried fruits requires a special next step called 'conditioning' which equalises the moisture as all the fruit pieces may not have dried equally due to different thicknesses. After the dehydrator has finished the drying session and the fruit has cooled, pack it loosely in a sealed glass jar and shake daily for 10 days to separate the pieces. Any excess moisture will be absorbed by drier fruit pieces, inhibiting mould. Vegetables generally don't need conditioning but if you sense they are not dry enough either extend the time in the dehydrator or follow the same process.

When used properly, vacuum sealers provide the ideal storage method. The less air present, the less potential for the formation of mould.

Reconstitution

Dried foods do not need to be reconstituted for consumption. Many people prefer to eat them in their dried state. If you want to reconstitute your food, here are some basic guidelines:

- Soak food in unsalted water for 3-7 minutes and then prepare as usual. If you are boiling them, use the same water they soaked in to preserve nutrients. If you plan to soak foods for more than one hour, they should be placed in the refrigerator to prevent bacterial growth.
- One cup of dried vegetables will reconstitute approximately two cups.
- One cup of dried fruit will reconstitute to about one and a half cups.
- Reconstitution times will vary depending on the thickness of the food and the water temperature used.
- Warm water will speed up reconstitution but may result in some flavour loss.

Drying Times

The following charts are guidelines for the preparation of various fruits, vegetables and meats. Drying times will vary depending on the room temperature, relative humidity and moisture levels in the food that you are drying. If the moisture level is low, the drying time will be on the low end of the range. However, if the moisture level is high, the drying time will be on the high end of the range.

Keep in mind that drying times are also affected by the amount of food placed on the shelves. Overloading the shelves will slow the drying time and may produce poorer results.

When dehydrating foods, it is important to check on the dryness of the product. If the product is not thoroughly dried, mould may form during storage (see Food Storage). To test for dryness, remove a piece of food from the dehydrator and allow it to cool to room temperature. Bend and tear the piece to check for internal moisture.



Vegetables

50-55°C/122-131°F

| FOOD | PREPARATION | TEST | TIME (HRS) |
|------------------------------|---|-------------------|------------|
| Asparagus | Wash and cut into 25mm pieces | Crunchy | 4-6 |
| Beans, green or waxed | Wash, remove ends and cut into 25mm pieces or French style | Crunchy | 9-12 |
| Beetroot | Remove 10mm of the top, scrub thoroughly. Peel if preferred and cut into 5mm slices. | Pliable | 9-12 |
| Broccoli | Wash and trim and cut into 1cm pieces. Dry the florets whole. | Crunchy | 10-14 |
| Cabbage | Wash and trim, cut into 3mm strips | Crunchy | 8-11 |
| Carrots | Wash and trim tops, peel or scrape if desired. Cut into 3mm thick slices. | Pliable | 7-11 |
| Corn | Cut kernels from cob and spread on the mesh tray. | Crunchy | 7-10 |
| Cucumber | Wash and trim, cut into 3mm slices | Pliable | 4-8 |
| Eggplant | Wash and peel, cut into 6mm slices | Pliable | 4-8 |
| Mushroom | Wash and cut into 8mm slices | Pliable | 4-7 |
| Parsnips | Scrub and steam blanch (if desired) and cut into 8mm slices | Pliable / Tough | 7-11 |
| Capsicum | Wash and remove seeds and white section. Cut into 6mm strips or rings | Pliable | 4-8 |
| Potatoes | Use new potatoes, wash and peel if desired. Steam blanch for 4-6 minutes. Cut into French style or 6mm thick circles. | Crunchy / Pliable | 7-13 |
| Summer Squash | Wash and cut into 6mm slices | Pliable | 10-14 |
| Tomatoes | Wash and slice into 6mm circles | Pliable | 10-14 |
| Zucchini | Wash and cut into 5mm slices | Crunchy | 7-11 |

| FOOD | PREPARATION | TEST | TIME (HRS) |
|---------------------|--|--------------------|------------|
| Apples | Wash, core and peel if desired. | Pliable | 7-15 |
| Apricots | Was, halved and remove pit. Slice in half and dry skin side down | Pliable | 18-20 |
| Bananas | Peel and slice into 3mm slices | Pliable | 7-10 |
| Figs | Wash, cut out blemishes and quarter. Dry skin side down. | Pliable | 18-20 |
| Kiwi Fruit | Wash and slice into 6mm slices | Pliable | 8-11 |
| Nectarines | Wash, halve and remove pit. Slice if desired and dry skin side down. | Pliable | 8-17 |
| Peaches | Wash, halve and remove pit. Slice if desired and dry skin side down. | Pliable | 8-16 |
| Pears | Wash, core and peel if desired. | Pliable | 4-8 |
| Pineapple | Peel, remove fibrous parts and remove core. Cut into 6mm slices or wedges. | Pliable | 11-18 |
| Rhubarb | Wash and cut in 25mm lengths | Pliable | 6-10 |
| Strawberries | Wash, cut of tops and slice into 6mm pieces | Crisp | 7-15 |
| Watermelon | Cut off rind, cut into wedges and remove seeds. Cut into 10mm pieces. | Pliable and sticky | 8-10 |

Meat & Fish

65-70°C/149-158°F

| FOOD | PREPARATION | TEST | TIME (HRS) |
|--------------|---|---------|------------|
| Jerky | Use lean meat and remove as much fat as possible as fat turns rancid with time. Cut 6mm thick slices and place on shelves. | Pliable | 7-8 |

Nuts & Seeds

50-55°C/122-131°F

| FOOD | PREPARATION | TEST | TIME (HRS) |
|--------------------|---|----------------|------------|
| Nuts, Seeds | See preparation instructions in this manual | Dry, not chewy | 8-14 |

Grains

45-55°C/113-131°F

| FOOD | PREPARATION | TEST | TIME (HRS) |
|---------------|---|----------|------------|
| Grains | See preparation instructions in this manual | Firm/dry | 10-18 |





Recipes

View our complete recipe collection online
www.biochefkitchen.com



Troubleshooting

Dehydrator does not turn on

Make sure the power cord is properly secured into the power source and that the switch is turned to the 'ON' position.

Fan is working but there is no heat

Turn the dehydrator off. Call the service centre.

Heater is working but the fan is not working

Turn the dehydrator off. Check to see if there is any foreign object. If still not working, call the service centre.

Not dehydrating correctly

1. There may be too much food on the tray. Reduce the food quantity
2. Food is overlapping on the tray. Slice thinly and evenly space food on the tray.

Water drops on the door

1. There may be too much food on the tray. Reduce the food quantity.
2. Food contains too much water. Reduce the food quantity and increase dehydrating time

Over heating or little heating

Temperature control system is not working properly. Turn the machine OFF and contact the service centre.

Foods are not evenly dehydrated

1. The thickness of the food is not even. Evenly slice the food.
2. There may be too much food on the tray. Reduce the food quantity.

Abnormal sound from the fan

Screen cover in front of fan is rubbing the fan blade. Turn off the machine and unplug from power source. Gently pull screen away from fan blades by using needle nose pliers.



BIOCHEF COMMERCIAL 20 & 32 TRAY VERTICAL DEHYDRATOR WARRANTY

WARRANTY PERIOD: 3 YEARS COMMERCIAL

VITALITY 4 LIFE IS THE GLOBAL DISTRIBUTOR AND WARRANTY PROVIDER OF BIOCHEF. WARRANTY REGISTRATION AND CLAIMS ARE HANDLED BY YOUR LOCAL VITALITY 4 LIFE SUPPORT CENTRE, DETAILS ON INSIDE BACK COVER.

PLEASE REGISTER YOUR WARRANTY ONLINE AT WARRANTY.VITALITY4LIFE.COM WITHIN 30 DAYS OF PURCHASE.

LOGGING A WARRANTY CLAIM

Should you experience any issues with your product, please follow these steps to lodge a warranty claim:

- Contact your local Vitality 4 Life Service Centre with the following details:
 - Your warranty details including name, email and phone number
 - Product name and model number
 - Product serial number, found on the rating label of the product
 - Explanation of how the damage occurred
 - Photos of the damage or issue is highly beneficial to expediting your claim
- Vitality 4 Life will assess your claim and respond within 24-48 hours.
- In the event the product is required to be sent to the Service Centre, the customer is liable for all packing, freight and insurance costs for transit of the product to Vitality 4 Life. Subject to the applicable consumer laws in your jurisdiction.
- If the product, or one of its parts, qualifies for replacement or service within the 30-Day period after date of purchase, Vitality 4 Life will arrange the shipping at no cost to you.
- Any product sent to a Vitality 4 Life Service Centre must include a Return Authorization Form. Failure to include this form may result in the product being rejected from our warehouse or a delayed service time.
- Vitality 4 Life will contact you with a quote prior to undertaking any service work outside of the warranty coverage.
- Typical turn-around times to address warranty claims can be between 10-14 business days, plus shipping, depending on location and type of damage or warranty claim.

TERMS OF PRODUCT WARRANTY COVERAGE

Vitality 4 Life provides the Product Warranty coverage as further described below and limited to the terms and conditions hereof:

- If the Product exhibits a defect while in normal domestic use, within the warranty period; we will, at our option, either repair or replace the product or defective part free of charge. The Product must be delivered by insured mail, in proper packaging to your Service Centre as indicated on the back of the manual as a condition to any warranty service obligation.
- In the event that the warranty period for a product has expired, or if a Product does not qualify for warranty service, repair or replacement, consumers may still buy

replacement parts or have products repaired by one of Vitality 4 Life's Service Centres. Please contact Vitality 4 Life for further information.

- Do not send the product back to the Service Centre without a Return Authorization Form.
- In no event shall our liability exceed the retail value of the product. We make no warranty with respect to parts, from a source other than Vitality 4 Life.
- In the event that warranty parts or products are provided, the customer must cover the related shipping costs to receive goods.
- All exchanged or substitute parts and products replaced under warranty service will become the property of Vitality 4 Life. Repaired or replaced products or parts thereof will be warranted by Vitality 4 Life for the balance of the original warranty period.
- (Australia only) Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

WARRANTY DOES NOT COVER

- Damage, accidental or otherwise, to the Product, not caused by direct defect in factory workmanship or materials.
- Damage due to abuse, mishandling, alteration, misuse, commercial service, tampering, accident, failure to follow care, operating and handling provisions indicated in the instructions.
- Damage caused by parts or service not authorized or performed by Vitality 4 Life.
- 'Normal' wear and tear that naturally and inevitably occurs as a result of normal use or aging.
- Some states do not allow the exclusion or limitation of incidental or consequential damages. Therefore, the above limitations may not apply to you in the case of damage in shipment. If your product was damaged in shipment: Immediately report this type of damage to the parcel carrier and have them file an inspection report to contact the distributor from whom you purchased the product for further instructions.
- You have rights and benefits under the consumer laws in your jurisdiction. Without detracting from these rights or benefits, Vitality 4 Life excludes all liability in respect of this product for any other loss which is not reasonably foreseeable from a failure of this product, which may include liability for negligence, loss of expenditure associated with the product and loss of enjoyment.