



How to Use and Care for Your Presto® Pressure Canner

This brochure is applicable only to model numbers 0175002, 0175003, 0175004, 0178002, 0178003, and 0178004

This is a  Listed appliance. The following important safeguards are recommended by most portable appliance manufacturers.

IMPORTANT SAFEGUARDS

To reduce the risk of personal injury or property damage, basic safety precautions should always be followed, including the following:

1. Read all instructions. Improper use may result in bodily injury or property damage.
2. Always check the vent pipe before use. Hold the cover up to the light and look through the vent pipe to be certain it is clear.
3. Always check the air vent/cover lock to make sure it moves freely before use.
4. Do not fill the pressure canner over $\frac{2}{3}$ full when using it for pressure cooking. For soups, grains, and dry beans and peas which expand during cooking, do not fill the canner over $\frac{1}{2}$ full. Overfilling may cause a risk of blocking the vent pipe and developing excess pressure.
5. Do not pressure cook applesauce, cranberries, rhubarb, cereals, pasta, split peas, or soup mixes containing dry beans and peas. These foods tend to foam, froth, and sputter and may block the vent pipe, overpressure plug, and air vent/cover lock.
6. This appliance cooks under pressure. Improper use may result in scalding injury. Make certain the pressure canner is properly closed before operating; the cover handles must be above the body handles. See “How to Use” instructions.
7. Do not use the pressure canner on any outdoor LP gas burner or a gas range over 12,000 BTUs. Doing so may result in damage to the pressure canner and/or property damage and personal injury.
8. Extreme caution must be used when moving a pressure canner containing hot liquids. Do not touch hot surfaces. Use the handles or knobs.
9. Do not place the pressure canner or attempt to pressure can or cook in a heated oven.
10. Do not open the canner until the internal pressure has been completely reduced, the air vent/cover lock has dropped, and no steam escapes when the pressure regulator is removed. See “How to Use” instructions.
11. To ensure safe operation and satisfactory performance, replace the overpressure plug every time you replace the sealing ring or sooner if it becomes hard, deformed, cracked, worn, or pitted. It is recommended that the sealing ring and overpressure plug be replaced at least every three years. Use only genuine Presto® replacement parts.
12. Close supervision is necessary when the pressure canner is used near children. It is recommended that children not use the pressure canner.
13. When operating pressure is reached, gradually lower the heat to maintain the pressure. If the pressure regulator is allowed to rock vigorously, excess steam will escape, the liquid will evaporate, the canner may go dry, and the food may scorch.
14. Do not use this pressure canner for other than the intended use.
15. Do not use this pressure canner for pressure frying with oil.

SAVE THESE INSTRUCTIONS

THIS APPLIANCE IS FOR HOUSEHOLD USE ONLY.

Getting Acquainted

Your canner is a special, large capacity pressure vessel designed for home canning a wide variety of fruits, vegetables, meats, poultry, fish, and seafood. The canner uses pressure to achieve the high temperatures required for safely processing foods while canning.

The United States Department of Agriculture (USDA) recommends the pressure canner as the only safe method for canning low-acid foods: vegetables, meats, poultry, fish, and seafood.

Become familiar with the various parts of the canner (Fig. A). **Do not attempt to use your pressure canner before reading the instructions on pages 4 and 5.**

Introduction to Parts

Note: The parts shown are not to scale.

❶ Overpressure Plug

The black, rubber overpressure plug is located in the canner cover. It will automatically pop out and release steam in case the vent pipe becomes blocked and pressure cannot be released normally through the vent pipe. Replace the overpressure plug every time you replace the sealing ring. This should be at least every 3 years, or sooner if they become hard or inflexible. Use only genuine Presto® replacement parts.

❷ Pressure Dial Gauge

The pressure dial gauge registers pressure in pounds per square inch, or PSI. The pointer moves around the dial indicating the pressure within the unit. Pressure can be controlled and maintained by adjusting the heat setting on your stove. The gauge is attached to the cover with a soft, black, molded rubber adapter. The gauge sits in the center of the cover.

A new adaptor should be installed when the old one becomes hard or inflexible. Install the new adaptor by pushing the small end up through the opening from the underside of the cover. The large lip should fit flat against the underside of the cover.

❸ Pressure Regulator

The pressure regulator acts as a safety device to prevent pressure in excess of 15 pounds from building in the canner. Pressure readings are registered only on the pressure dial gauge. The replacement regulator (❸A) has a different look but functions in the same way as the original one.

❹ Vent Pipe

The vent pipe is the primary pressure relief valve and works in conjunction with the pressure regulator to release pressure in excess of 15 pounds. The pressure regulator sits loosely on the vent pipe. The replacement vent pipe (❹A) has a different look but functions in the same way as the original one.

❺ Air Vent/Cover Lock

The air vent/cover lock automatically vents, or exhausts, air from the canner and acts as a visual indication of pressure in the canner. The small gasket must be in place for the air vent/cover lock to seal completely.

❻ Locking Bracket

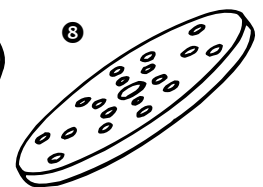
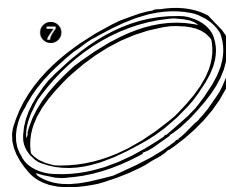
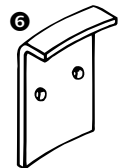
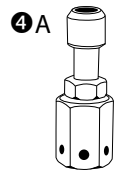
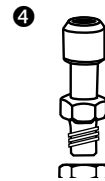
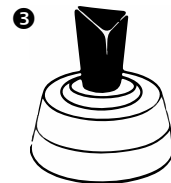
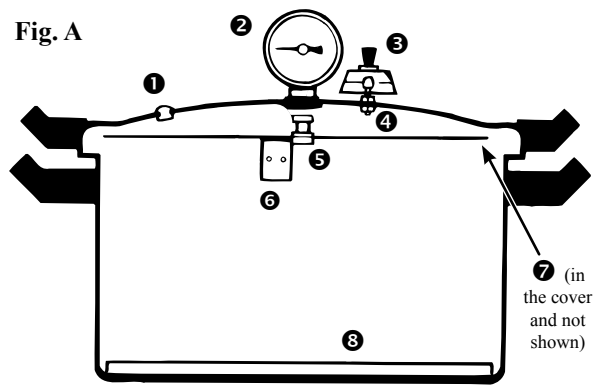
The locking bracket on the inside of the canner body engages with the air vent/cover lock to prevent the cover from being opened when there is pressure in the unit.

❼ Sealing Ring

The sealing ring fits into the canner cover and forms a pressure-tight seal between the cover and the body during canning. Replace the sealing ring at least every 3 years. Use only genuine Presto® replacement parts.

❸ Canning Rack

The rack is placed in the bottom of the pressure canner to hold the jars off the bottom of the canner while canning. Always use the rack as the jars may break if set directly on the bottom of the canner.



Canning Basics

Introduction

The key to successful canning is to understand the acidity and spoilage factor of the food you wish to can, as well as the acceptable canning methods to process those foods. There are invisible microorganisms present all around us. Fruits, vegetables, and meat contain these microorganisms naturally; yet they are not a problem unless food is left to sit for extended periods of time, causing food spoilage. This is nature's way of telling us when food is no longer fit to eat.

There are four basic agents of food spoilage: enzymes, mold, yeast, and bacteria. Canning interrupts the natural spoilage cycle so food can be preserved safely. Molds, yeast, and enzymes are destroyed at temperatures below 212°F, the temperature at which water boils (except in mountainous regions). Therefore, the boiling water method is sufficient to destroy those agents. Foods naturally high in acid and acidified foods with a pH of 4.6 or less may be safely processed using the boiling water method.

However, bacteria are not as easily destroyed and thrive on low-acid foods in the absence of air. The bacteria *Clostridium botulinum* produces a spore that makes a poisonous toxin, which causes botulism. This spore is not destroyed at 212°F. According to the USDA, pressure canning is **the only safe method** of processing low-acid foods (vegetables, meats, poultry, fish, and seafood).

In pressure canning, some of the water in the pressure canner is converted to steam, which creates pressure within the canner. As the pressure increases, so does the temperature: 5 pounds pressure, 228°F; 10 pounds pressure, 240°F; 15 pounds pressure, 250°F. This pressurized heat destroys the potentially harmful bacterial spores. As the jars cool after processing, a vacuum is formed, sealing the food within and preventing any new microorganisms from entering and spoiling the food.

Before Beginning

Selecting Jars

Glass home canning jars, often referred to as Mason jars, are made of heat-tempered glass for durability and reuse. These are the only jars recommended for safe home canning. They are available in several standard sizes (half-pint, pint, and quart jars) and will withstand the heat of a pressure canner. The diameter of the Mason jars may vary from one manufacturer to another.

Before filling your Mason jars, test load your canner. A canning rack must be placed on the bottom of your canner to prevent jar breakage. The jars may touch and it is not necessary to use a rack between the layers of jars. It may be necessary to double-deck the pint and half-pint jars to reach the maximum load capacity of your canner. To double-deck, stagger the jars by placing one jar on top of two. However, if using the boiling water method, do not double-deck the jars.

Canning Lids and Bands

The two-piece vacuum cap is the recommended closure for home canning. It consists of a flat metal lid with a sealing compound on the outer edge and a separate metal screw band that secures the lid during processing. The flat lid is for one use only while the bands can be used repeatedly if they remain in good condition. Always prepare lids and bands according to the manufacturer's instructions.

Measuring Headspace

Headspace is the air space between the top of the food or its liquid and the lid. Leaving too much headspace can result in underprocessing because it may take too long to release the air from the jar. Leaving too little headspace will trap food between the jar and the lid, resulting in an inadequate seal. As a general rule, allow ½-inch headspace for fruits and tomatoes and 1-inch headspace for vegetables, meats, poultry, and seafood. All current and tested canning recipes will indicate the amount of headspace necessary for the food being canned.

Removing Air Bubbles

After the food has been packed in the Mason jars, any air bubbles must be removed. Trapped air bubbles may rise to the top during processing, resulting in too much headspace. Work quickly to remove the air bubbles that have become trapped between pieces of food by moving a clean, nonmetallic spatula around the jar between the food and the side of the jar.

Preparing Jar Rims and Adjusting Lids

Immediately wipe the jar rims with a clean, damp cloth to remove any residue. Any food particles, such as seeds, grease, or syrup, on the rim of the jar may prevent the jar from sealing. Place the flat lid on the rim of the jar, making sure the sealing compound is touching the glass. Position a band over the lid and, using your fingertips, screw it onto the jar just until resistance is met. Do not overtighten as the air must release from the jars during processing and cooling.

After Processing

Cooling Jars

After processing, remove the jars from the canner and place them on a dry towel on the countertop away from drafts. Leave 1 to 2 inches of space between the jars to allow for even cooling. Do not invert the jars or cover them with a cloth. Allow jars to cool naturally for 12 to 24 hours before checking the seals.

Testing Seals

After the jars have cooled, test the jar lids to be sure a vacuum seal has formed. Press down on the center of the flat lid to determine if it is concave (stays down when pressed). Then, remove the screw band and gently try to lift the lid with your fingertips. If the center does not flex up and down, and you cannot lift the lid off, the lid has a good seal.

Detecting Spoilage

If up-to-date instructions, processing times, and canning pressures are followed carefully, spoilage is uncommon. However, it is still recommended to check for signs of spoilage before tasting any canned food. Check for a broken seal, gassiness when opening, mold, sliminess, cloudiness, or unpleasant odors. **If any of these signs are present, discard the food.**

As a safeguard against using canned low-acid foods and tomato products which may be affected with spoilage that is not readily detected, boil food 10 minutes for altitudes up to 1,000 feet above sea level. Extend the boiling time by 1 minute for each 1,000 foot increase in altitude. Many times odors that cannot be detected in the cold product will become evident by this method. If, after boiling, food does not smell or look right, **discard it without tasting.**

How to Use your Presto® Pressure Canner

IMPORTANT: Do not attempt to use your canner before reading these step-by-step instructions for pressure canning in your canner. Prepare food according to the processing procedures in the specific recipe and follow the recipe and instructions carefully.

1. Be sure your canner is thoroughly cleaned and working properly. Before each canning season, have the dial gauge checked for accuracy. Also check the sealing ring, the overpressure plug, and the rubber adaptor of the pressure dial gauge. Replace these parts when they become hard, deformed, cracked, worn, pitted, or unusually soft. Use only genuine Presto® replacement parts.
2. Check the Mason jars for nicks, cracks, and sharp edges. Check the screw bands for dents or rust. Use only jars, lids, and screw bands in perfect condition so an airtight seal may be obtained. Wash and rinse the jars, lids, and screw bands. Pour hot water into the jars and set them aside until needed. Follow the manufacturer's directions for preparing the lids.
3. For recipe information, see your booklet titled *Recipes and Helpful Hints for Presto® Pressure Canners*. Select fresh, firm food. Sort the food according to size and clean thoroughly. Prepare the food according to the specific recipe; always use current, research-tested procedures, recipes, and timetables. Fill the hot jars promptly with food and liquid to the recommended level.

Allow ½-inch headspace for fruits. Most vegetables and meats require 1-inch headspace due to expansion during processing. Work out the air bubbles with a clean, nonmetallic spatula. Wipe the sealing edge clean with a damp cloth. Center the flat lid on the jar rim. Adjust the screw band according to the manufacturer's directions.

4. Position the canner on a level gas or electric coil burner and range only. These canners are not designed to work on electric glass-top or induction burners and ranges. If you use the canner on a tilted burner or range, it may interfere with the operation of the pressure regulator.

For electric ranges, use the element that most closely matches the diameter of the canner bottom, which is the portion that comes in contact with the element.

CAUTION! Do not use on any outdoor LP gas burner or a gas range over 12,000 BTUs. If you use an element that is too large or one over 12,000 BTUs, the canner may soften and the bottom may warp. It may also result in property damage and/or personal injury.

5. Place **3 quarts of hot water** and the canning basket or rack in the canner; for hot packed foods, the water can be heated to 180°F, or not quite boiling. To prevent water stains, add 2 tablespoons of white vinegar to the water in the canner. **Note:** 3 quarts of water are needed regardless of how many jars are being canned.
6. Place the filled jars on the canning rack immediately after each jar is filled. Always use the canning rack as the jars may break if set directly on the bottom of the canner.
7. Hold the cover up to the light and look through the vent pipe (Fig. B) to be certain it is clear before placing the cover on the canner. If it is clear, proceed to the next step. If it is blocked, clean the vent pipe with a small brush or pipe cleaner (Fig. C).
8. Check to be sure the overpressure plug is seated properly in the cover (Fig. D).
9. Place the cover on the canner, aligning the **V** mark on the cover with the mark on the body handle. Press down on the cover handles to compress the sealing ring and then turn the cover in the direction indicated (clockwise) to close until the cover handles are above the body handles. **Do not rotate the cover beyond this point.**
10. Using a high setting on your stove, heat the canner until a steady flow of steam can be seen, heard, or felt coming from the vent pipe (Fig. E). Allow this steam to flow from the vent pipe for 10 minutes to vent, or exhaust, all the air from the canner. Reduce the heat on your stove, if necessary, to maintain a steady, moderate flow of steam.
11. Place the pressure regulator on the vent pipe (Fig. F, page 5). If the heat was reduced for venting, adjust it to a high setting and heat the canner.

Fig. B

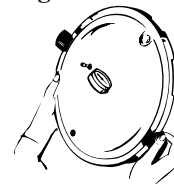


Fig. C



Fig. D



Fig. E



As the pressure develops in the canner, the air vent/cover lock will lift and lock the cover on the canner body. The air vent/cover lock is a visual indicator of pressure. When it is in the up position, there is pressure in the canner. When it is in the down position, there is no pressure in the canner.

As the pressure builds, the pointer will move across the face of the gauge. Continue heating until the gauge registers the correct pressure and then adjust the heat on your stove to maintain this pressure. The regulator will rock ONLY at 15 pounds of pressure.

Fig. F



- The processing time begins when the gauge registers the correct pressure as stated in the tested recipe. If the pressure drops below the correct pressure at any time during the processing cycle, it will be necessary to bring the pressure back to the correct setting and restart the processing countdown from the beginning for the full amount of time.

Helpful Hint: To more easily maintain pressure, reduce the heat on your stove when the gauge registers 1½ to 2 pounds less than the correct pressure. Do not begin the processing countdown until the correct pressure is reached.

- At the end of the processing time, turn the burner off and remove the canner from the burner. Let the pressure drop of its own accord. **Do not attempt to speed the cooling of the canner; this can cause jar breakage, liquid loss, and other problems.** Pressure is completely reduced when the air vent/cover lock and the overpressure plug have dropped and no steam escapes when the pressure regulator is lifted. Do not use the gauge as an indicator for when the pressure is completely reduced.
- When the pressure has been completely reduced, remove the pressure regulator from the vent pipe and let the canner cool for 10 minutes. Do not remove the regulator until the pressure is completely reduced and the air vent/cover lock has dropped. Always remove the regulator before opening the cover.
- To remove the cover, turn it counterclockwise until it hits the stop tab. The cover handles will be beyond the body handles. **CAUTION!** If the cover seems to stick or is hard to turn, do not force it open. Sticking may indicate that there is still pressure inside the canner. If in doubt about the state of pressure in the canner, let it stand until cool before removing the cover.
- When opening the cover, lift it toward you to keep any steam away from you (Fig. G).

Fig. G



- Using a jar lifter, remove the jars by lifting them straight up and out of the canner. Be careful not to tilt them, which may cause liquid to siphon from them. Place the jars upright on a board or a towel, away from drafts. Allow them to cool naturally for 12 to 24 hours before testing the seal. See the “After Processing” information on pages 3 and 4.

NOTICE: If processing consecutive batches, be sure to check the water level in the canner after each batch. Add water as needed to maintain 3 quarts of water in the canner at all times. If the canner boils dry and is left on a heated burner, or is heated while empty, it may overheat, resulting in discoloration and/or warping of the canner bottom.

- When canning is complete, allow the canner to cool completely before cleaning it.

Canner Storage

Store the canner in a dry place at temperatures above freezing. Invert the cover on the canner body. If you store the canner with the cover locked on, unpleasant odors may form and/or the sealing ring may deform. The canner must be completely dry before storing.

Care and Maintenance

Canner Body

- It is normal for the inside of the canner to discolor. This discoloration is not harmful. It is a result of the various minerals in the water and foods interacting with the aluminum. To remove this discoloration, use a solution of 1 tablespoon cream of tartar for every 1 quart of water. Pour enough solution into the canner to cover the discoloration, making sure the canner is not filled more than ⅔ full.

Close the cover securely, place the pressure regulator on the vent pipe, and heat the canner until the pressure regulator begins to rock. Remove the canner from heat; allow it to cool until the air/vent cover lock drops. Remove the regulator, open the canner, and empty the contents. Scour thoroughly with a steel wool soap pad; wash, rinse, and thoroughly dry.

- Pitting is caused by the interaction of the aluminum with other metals in the presence of moisture. To minimize pitting, wash, rinse, and dry the canner body thoroughly after every use. At least once a year, scour the inside of the canner body with an abrasive cleanser, such as Cameo* Aluminum & Stainless Steel Cleaner. Always store the canner in a dry area.
- Do not leave an empty canner on a heated burner or allow the canner to boil dry. This can cause damage to the canner bottom and/or the stovetop.
- Do not strike the rim of the canner body with any metal utensil. This will cause nicks, resulting in damage to the rim which may allow steam to escape from the canner.

* Cameo is a registered trademark of Armaly Sponge Company. Presto is not affiliated with this company.

- Do not pour water into a dry, overheated canner; this may crack the metal.
- If the body or cover handles of the canner become loose, tighten them with a screwdriver.

Pressure Dial Gauge

- The pressure dial gauge is a delicate instrument and must be handled with care. Do not submerge the gauge in any liquid, allow it to come into contact with any liquid, or subject it to freezing temperatures.
- The gauge needs to be checked for accuracy prior to each canning season **and** if any of the following conditions exist: the cover has been submerged in water or dropped, the parts are rusty, the pointer is not in the “0” block, or if you believe the gauge may not be accurate.

The gauge can usually be checked at your local county extension office. If you are unable to have your gauge checked locally, carefully remove it, wrap it securely, and send it to the Presto Consumer Service Department (see page 7). An accurate gauge is necessary to help prevent food spoilage and possible food poisoning.

- To install the dial gauge, insert the threaded stem into the black adapter seated in the hole in the center of the canner cover. Turn the gauge clockwise (Fig. H) until the gauge base sits flush against the adaptor. It may be necessary to hold the adapter from the inside of the cover while tightening the gauge. Stop turning it when the gauge faces the desired direction (Fig. I). The gauge will not tighten completely and the threaded stem will protrude from the underside of the adaptor.

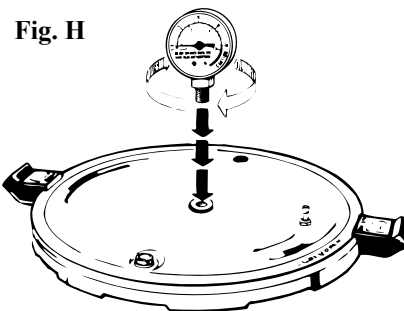
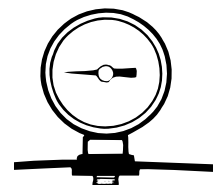


Fig. I



Sealing Ring and Overpressure Plug

- Each time the canner is washed, remove the sealing ring and wash it in warm, soapy water. Rinse, dry, and replace it in the cover.
- The sealing ring and the overpressure plug should be replaced at least every three years, or sooner if the sealing ring becomes hard, deformed, cracked, worn, or pitted, or if the canner becomes difficult to open or close. Failure to replace the sealing ring and overpressure plug could result in bodily injury or property damage. Use only genuine Presto® replacement parts.
- If the sealing ring and overpressure plug are exposed to direct high heat, such as that from a hot burner or stovetop, they will deteriorate rapidly. If direct high heat exposure occurs, replace both of these parts.
- Clean the sealing ring groove in the cover with a brush each time you replace the sealing ring.
- To clean or replace the overpressure plug, push it out of its opening from the top of the cover. After cleaning it, or when replacing an old one with a new one, reinsert the plug by pushing the domed side of the plug into its opening from the underside of the cover. The bottom edge should be fully and evenly seated against the underside of the cover (Fig. J).
- If the overpressure plug is ever forced out of the cover due to excess pressure while canning or cooking, it is important to call the Presto Customer Service Department at 1-800-877-0441 for assistance. **Do not attempt to use the released overpressure plug.**

Fig. J



Air Vent/Cover Lock

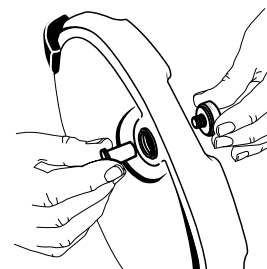
- The air vent/cover lock may be removed for occasional cleaning or for replacing the small gasket. To remove it, grasp and securely hold the cup on the underside of the cover with your fingers (Fig. K). Using the fingers of your other hand, turn the pin on the top side of the cover counterclockwise until the pin is free of the cup.

Lift the pin out of the cover and remove the cup from under the cover. Carefully pull the small gasket off the threaded shaft of the cup. Wash all parts in warm, soapy water, rinse, and dry. Use a soft cloth or small nylon brush to clean the cover hole.

- To reassemble it, place the small gasket over the threaded shaft of the cup. Reinsert the cup by pushing the threaded shaft through the air vent/cover lock opening from the underside of the cover (Fig. K).

Screw the pin clockwise onto the threaded shaft until it is finger-tight. Do not use a wrench to tighten the air vent/cover lock. Overtightening may cause the rubber gasket to wrinkle, which will result in the canner not sealing. Periodically check to make sure these two pieces are tight.

Fig. K



Steam Leakage

If leakage of moisture or steam develops while using your canner, check the following possible causes:

- The formation of a small amount of moisture under the pressure regulator is normal when canning or cooking first begins. This condensation is a result of the temperature of the pressure regulator being lower than the rest of the canner. If excess condensation continues, the vent pipe may be loose and should be tightened with an adjustable wrench.
- Leakage between the cover and body is usually caused by shrinkage of the sealing ring after prolonged use. Replace the sealing ring and the overpressure plug.
- A slight amount of leakage around the air vent/cover lock is normal when canning or cooking first begins. If leakage continues, the cover handles may not be fully aligned with the body handles and, therefore, the cover lock cannot engage. Clean the air vent/cover lock occasionally to assure that it operates correctly. Replace the small gasket if it is cracked or nicked.
- A small amount of steam or moisture may be visible around the overpressure plug when canning or cooking begins. This will stop when the overpressure plug seals. If the leakage continues, clean, reposition, or replace the overpressure plug.

Do not operate your pressure canner with continual leakage. If the preceding steps do not correct the problem, contact the Presto Consumer Service Department.

Service and Parts Information

If you have any questions regarding the operation of your Presto® canner or need parts for your canner, contact us by:

- Calling 1-800-877-0441 weekdays 8:00 AM to 4:00 PM (Central Time)
- Emailing via our website at www.GoPresto.com
- Writing to National Presto Industries, Inc., Consumer Service Department, 3925 N. Hastings Way, Eau Claire, WI 54703-3703

Inquiries will be answered promptly by telephone, email, or letter. When emailing or writing, please include a phone number and a time when you can be reached during weekdays, if possible. When contacting the Consumer Service Department or when ordering replacement parts, please specify the model number stamped on the bottom of the canner body.

Any maintenance required for this canner, other than that described in the “Care and Maintenance” section of this booklet, should be performed by our Service Department. Be sure to indicate your full name, phone number, date of purchase, and a description of the problem when sending a canner in for repair. **Note:** We do recommend that you call our Consumer Service Department prior to sending in your canner.

Use only genuine Presto® replacement parts with your Presto® pressure canner. Genuine Presto® replacement parts are manufactured to the same exacting quality standards as Presto® appliances and are engineered specifically to function properly with its appliances. Presto can only guarantee the quality and performance of genuine Presto® parts.

“Look-alikes” might not be of the same quality or function in the same manner. To ensure that you are buying genuine Presto® replacement parts, look for the Presto® trademark. Replacement parts are generally available at local hardware stores and other retail outlets. These replacement parts may also be ordered online at www.GoPresto.com.

Recipes and Helpful Hints for

PRESTO®

Pressure Canners

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FRUITS

Although fruits are safely canned using the boiling water method, they can also be canned under pressure. This booklet contains processing procedures for pressure canning fruit.

Maintaining Color

Select firm, fully-ripened but not soft fruit. Do not can overripe foods. Some fruit (apples, apricots, nectarines, peaches, and pears) tends to darken while being prepared for canning.

To prevent darkening, place the fruit in a solution of 3 grams (3,000 milligrams) ascorbic acid to 1 gallon of cold water. Ascorbic acid is available in different forms:

Pure Powdered Form: Use 1 teaspoon of pure powder, which weighs about 3 grams, per gallon of water.

Vitamin C Tablets: Buy 500 milligram tablets. Crush and dissolve 6 tablets per gallon of water.

Commercially Prepared Mixes of Ascorbic and Citric Acid: Available under different brand names. Use according to manufacturer's directions found on the package.

Canning Liquids

Although fruit has better color, shape, and flavor when it is canned with syrup, it may be canned in juices (such as apple, white grape, or pineapple) or water as well.

White sugar is preferable to brown sugar for canning. Light corn syrup or honey may be used to replace up to one-half the sugar. If you wish to use sugar substitutes, follow the package instructions.

The amount of sugar desirable to use in preparing syrups will depend upon the tartness of the fruit and on family preference. It should be remembered that fruit, when heated, releases some of its juices which will dilute the syrup in proportion to the juiciness of the fruit.

Use the syrup chart on page 4 as a guideline for preparing the syrup needed for your canning recipe. The syrup recipe may be doubled or tripled depending on the packing method and amount of fruit being canned at one time.

SYRUPS FOR CANNING FRUITS			
Combine sugar and water in a large pot. Bring to a boil and keep syrup hot while preparing fruit. Use as directed in recipe.			
Syrup	Sugar	Water	Yield
Very Light	½ cup	4 cups	4½ cups
Light	1 cup	4 cups	4¾ cups
Medium	1¾ cups	4 cups	5 cups
Heavy	2¾ cups	4 cups	5½ cups

When pressure canning at altitudes of 2,000 feet or below (dial gauge canner) or 1,000 feet or below (weighted gauge canner), process according to specific recipe. When pressure canning above 2,000 feet altitude (dial gauge canner) or 1,000 feet (weighted gauge canner), process according to the following chart.

Altitude Chart for Canning Fruits

Altitude	Dial Gauge Canner	Weighted Gauge Canner
	Pints and Quarts	Pints and Quarts
1,001–2,000 ft.	6 pounds	10 pounds
2,001–4,000 ft.	7 pounds	10 pounds
4,001–6,000 ft.	8 pounds	10 pounds
6,001–8,000 ft.	9 pounds	10 pounds

Processing time is the same at all altitudes.

CANNING RECIPES: FRUITS

APPLES

Wash, peel, and core apples. Cut into ½-inch slices. Place apples in an ascorbic acid solution (see above) to prevent darkening during preparation. Drain well.

Hot Pack: Add apples and syrup (see above), juice, or water to a large pot; bring to a boil. Boil for 5 minutes, stirring occasionally. Pack hot apples in hot jars, leaving ½-inch headspace. Cover apples with hot syrup, juice, or water, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 6 pounds pressure, pints and quarts 8 minutes. For processing above 2,000 feet altitude, see above for recommended pounds pressure.

Weighted Gauge Canner: Process at 5 pounds pressure, pints and quarts 8 minutes. For processing above 1,000 feet altitude, see above for recommended pounds pressure.

APPLESAUCE

Wash, peel, core, and slice apples. If desired, place apple slices into ascorbic acid solution (see above) to prevent darkening. Drain well. Place slices in a large pot. Add ½ cup water. Heat quickly until apples are tender, stirring occasionally to prevent scorching. Press through food mill or sieve. (If chunk style sauce is preferred, omit this step.) If desired, sweeten to taste. Reheat sauce to boiling. Pack into hot jars, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 6 pounds pressure, pints 8 minutes and quarts 10 minutes. For processing above 2,000 feet altitude, see above for recommended pounds pressure.

Weighted Gauge Canner: Process at 5 pounds pressure, pints 8 minutes and quarts 10 minutes. For processing above 1,000 feet altitude, see above for recommended pounds pressure.

APRICOTS

Wash well-ripened, firm apricots. If peeled apricots are desired, dip 1 minute in boiling water, then in cold water and peel. Cut apricots in half and remove pits. Place apricots in an ascorbic acid solution (see above) to prevent darkening during preparation. Drain well.

Hot Pack: Add apricots and syrup (page 4), juice, or water to a large pot; bring to a boil. Pack hot apricots, cut side down, in hot jars, leaving ½-inch headspace. Cover with hot syrup, juice, or water, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Raw Pack: Pack raw apricots, cut side down, in hot jars, leaving ½-inch headspace. Cover with hot syrup, juice, or water, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 6 pounds pressure, pints and quarts 10 minutes. For processing above 2,000 feet altitude, see page 2 for recommended pounds pressure.

Weighted Gauge Canner: Process at 5 pounds pressure, pints and quarts 10 minutes. For processing above 1,000 feet altitude, see page 2 for recommended pounds pressure.

BERRIES (EXCEPT STRAWBERRIES)

Choose ripe, sweet berries with uniform color. Wash 1 or 2 quarts of berries at a time. Drain, cap, and stem if necessary.

Hot Pack: Use this method for firmer berries such as blueberries, currants, elderberries, gooseberries, and huckleberries. Heat berries in a large pot with boiling water for 30 seconds and drain. Add ½ cup hot syrup (page 2), juice, or water to hot jars. Pack hot berries into jars, leaving ½-inch headspace. Cover with hot syrup, juice, or water, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 6 pounds pressure, pints and quarts 8 minutes. For processing above 2,000 feet altitude, see page 2 for recommended pounds pressure.

Weighted Gauge Canner: Process at 5 pounds pressure, pints and quarts 8 minutes. For processing above 1,000 feet altitude, see page 2 for recommended pounds pressure.

Raw Pack: Use this method for softer berries such as raspberries and blackberries. Add ½ cup hot syrup (page 2), juice, or water to hot jars. Pack raw berries into jars, leaving ½-inch headspace. Gently shake jars while filling to pack firmly without crushing berries. Cover with hot syrup, juice, or water, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 6 pounds pressure, pints 8 minutes and quarts 10 minutes. For processing above 2,000 feet altitude, see page 2 for recommended pounds pressure.

Weighted Gauge Canner: Process at 5 pounds pressure, pints 8 minutes and quarts 10 minutes. For processing above 1,000 feet altitude, see page 2 for recommended pounds pressure.

CHERRIES

Stem and wash cherries. Remove pits, if desired. If pitted, place cherries in an ascorbic acid solution (page 2) to prevent darkening of the stem end. Drain well. If canning whole cherries, prick each cherry with a clean needle to prevent splitting.

Hot Pack: Heat cherries in a large pot with ½ cup syrup (page 2), juice, or water per quart of cherries. Cover pot and bring to a boil. Pack hot cherries and cooking liquid in hot jars, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 6 pounds pressure, pints 8 minutes and quarts 10 minutes. For processing above 2,000 feet altitude, see page 2 for recommended pounds pressure.

Weighted Gauge Canner: Process at 5 pounds pressure, pints 8 minutes and quarts 10 minutes. For processing above 1,000 feet altitude, see page 2 for recommended pounds pressure.

NECTARINES AND PEACHES

Wash fully-ripened but not soft nectarines or peaches. Skin can be left on nectarines. For peaches, loosen skin by dipping them 1 minute in boiling water, then in cold water. Peel. Cut fruit in half and remove pits. Slice if desired. Place fruit in an ascorbic acid solution (page 2) to prevent darkening during preparation. Drain well.

Hot Pack: Add fruit and syrup (page 2), juice, or water to a large pot; bring to a boil. Pack hot fruit, cut side down, in hot jars, leaving ½-inch headspace. Cover with hot syrup, juice, or water, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Raw Pack: Pack raw fruit, cut side down, in hot jars, leaving ½-inch headspace. Cover with hot syrup, juice, or water, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 6 pounds pressure, pints and quarts 10 minutes. For processing above 2,000 feet altitude, see page 2 for recommended pounds pressure.

Weighted Gauge Canner: Process at 5 pounds pressure, pints and quarts 10 minutes. For processing above 1,000 feet altitude, see page 2 for recommended pounds pressure.

PEARS

Wash pears. Peel, cut in half lengthwise, and core. Place pears in an ascorbic acid solution (page 3) to prevent darkening during preparation. Drain well.

Hot Pack: Add pears and syrup (page 2), juice, or water to a large pot; bring to a boil. Boil 5 minutes. Pack hot pears in hot jars, leaving ½-inch headspace. Cover with hot syrup, juice, or water, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 6 pounds pressure, pints and quarts 10 minutes. For processing above 2,000 feet altitude, see page 2 for recommended pounds pressure.

Weighted Gauge Canner: Process at 5 pounds pressure, pints and quarts 10 minutes. For processing above 1,000 feet altitude, see page 2 for recommended pounds pressure.

PLUMS

Stem and wash firm, ripe plums. If plums are to be canned whole, prick each side with a fork. Freestone varieties may be cut in half and pitted.

Hot Pack: Add plums and syrup (page 2), juice, or water to a large pot; bring to a boil. Boil 2 minutes. Cover pot and let stand 20 to 30 minutes. Pack hot plums in hot jars, leaving ½-inch headspace. Cover with hot syrup, juice, or water, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Raw Pack: Pack raw plums firmly in hot jars, leaving ½-inch headspace. Cover with hot syrup (page 2), juice, or water, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 6 pounds pressure, pints and quarts 10 minutes. For processing above 2,000 feet altitude, see page 2 for recommended pounds pressure.

Weighted Gauge Canner: Process at 5 pounds pressure, pints and quarts 10 minutes. For processing above 1,000 feet altitude, see page 2 for recommended pounds pressure.

RHUBARB

Trim off leaves. Wash stalks and cut into ½-inch to 1-inch pieces.

Hot Pack: Add rhubarb and ½ cup sugar per quart of rhubarb to a large pot. Let stand until juice appears. Heat rhubarb slowly to boiling. Pack hot rhubarb in hot jars, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 6 pounds pressure, pints and quarts 8 minutes. For processing above 2,000 feet altitude, see page 2 for recommended pounds pressure.

Weighted Gauge Canner: Process at 5 pounds pressure, pints and quarts 8 minutes. For processing above 1,000 feet altitude, see page 2 for recommended pounds pressure.

TOMATOES AND TOMATO PRODUCTS

Although tomatoes and tomato products are safely canned using the boiling water method, they can also be canned under pressure. For some tomato products, the pressure canning method may result in a more nutritious canned product. This booklet contains processing procedures for pressure canning tomatoes and tomato products.

Acidifying Tomatoes and Tomato Products

Tomatoes have a pH close to 4.6, which means it is necessary to take precautions to can them safely. First, carefully choose the tomatoes for canning. Use only tomatoes that are disease-free, preferably vine-ripened, and firm.

Second, an acid must be added to tomatoes whether they are processed using the boiling water method or pressure canning method. To ensure the safety of whole, crushed, or juiced tomatoes, add 1 tablespoon bottled lemon juice (not natural juice) or ¼ teaspoon citric acid per **pint jar**; for **quart jars**, add 2 tablespoons bottled lemon juice or ½ teaspoon citric acid.

Salt

Tomatoes and tomato products may be canned with or without salt. Salt is used only for flavor, as it is not used in a large enough quantity to prevent spoilage. If salt is desired, use only canning or pickling salt. Table salt contains anti-caking agents that may cause cloudiness in the liquid inside the jars.

The recommended amount of salt is ½ teaspoon for each pint jar and 1 teaspoon for each quart jar.

When pressure canning at altitudes of 2,000 feet or below (dial gauge canner) or 1,000 feet or below (weighted gauge canner), process according to specific recipe. When pressure canning above 2,000 feet altitude (dial gauge canner) or 1,000 feet (weighted gauge canner), process according to the following chart.

Altitude Chart for Canning Tomatoes

Altitude	Dial Gauge Canner	Weighted Gauge Canner
	Pints and Quarts	Pints and Quarts
1,001–2,000 ft.	11 pounds	15 pounds
2,001–4,000 ft.	12 pounds	15 pounds
4,001–6,000 ft.	13 pounds	15 pounds
6,001–8,000 ft.	14 pounds	15 pounds

Processing time is the same at all altitudes.

CANNING RECIPES: TOMATOES

TOMATOES—WHOLE OR HALVED (packed raw without added liquid)

Wash smooth, firm, ripe tomatoes. Loosen skins by dipping tomatoes 1 minute in boiling water, then in cold water. Peel and remove core. Leave whole or halve. Add bottled lemon juice or citric acid to hot jars (see above). Add salt, if desired (see above). Fill jars with raw tomatoes, pressing until spaces between them fill with juice. Leave ½-inch head-space. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints and quarts 25 minutes. For processing above 2,000 feet altitude, see chart above for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints and quarts 25 minutes. For processing above 1,000 feet altitude, see chart above for recommended pounds pressure.

TOMATOES—WHOLE OR HALVED (packed in water)

Wash smooth, firm, ripe tomatoes. Loosen skins by dipping tomatoes 1 minute in boiling water, then in cold water. Peel and remove core. Leave whole or halve, or if using large tomatoes, quarter.

Hot Pack: Place prepared tomatoes in a large pot and add just enough water to cover. Bring to a boil and boil gently for 5 minutes. Add bottled lemon juice or citric acid to hot jars (see above). Add salt, if desired (see above). Pack hot tomatoes in hot jars, leaving ½-inch headspace. Fill jars with hot cooking liquid, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Raw Pack: Add bottled lemon juice or citric acid to hot jars (see above). Add salt, if desired (see above). Pack prepared tomatoes in hot jars, leaving ½-inch headspace. Fill hot jars with boiling water, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints and quarts 10 minutes. For processing above 2,000 feet altitude, see page 5 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints and quarts 10 minutes. For processing above 1,000 feet altitude, see page 5 for recommended pounds pressure.

TOMATO JUICE

Wash ripe, juicy tomatoes. Remove stem ends. To prevent juice from separating, quickly cut about 1 pound of tomatoes into quarters and put directly into a large pot. Heat immediately to boiling while crushing. Continue to slowly add and crush freshly cut tomato quarters to the boiling mixture. Make sure the mixture boils constantly and vigorously while adding more tomatoes. Continue until the pot is three-quarters full. Simmer 5 minutes. If juice separation is not a concern, simply slice or quarter tomatoes into a large pot. Crush, heat, and simmer for 5 minutes before juicing.

Press heated juice through a sieve or food mill to remove skins and seeds. Heat juice again to boiling.

Add bottled lemon juice or citric acid to hot jars (page 5). Add salt, if desired (page 5). Fill hot jars with hot tomato juice, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints and quarts 15 minutes. For processing above 2,000 feet altitude, see page 5 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints and quarts 15 minutes. For processing above 1,000 feet altitude, see page 5 for recommended pounds pressure.

TOMATO SAUCE

Prepare and press as for making tomato juice (see recipe above). Heat in large pot until sauce reaches desired consistency. Simmer until volume is reduced by about one-third for thin sauce or by one-half for thick sauce. Add bottled lemon juice or citric acid to hot jars (page 5). Add salt, if desired (page 5). Pour hot sauce into hot jars, leaving ½-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints and quarts 15 minutes. For processing above 2,000 feet altitude, see page 5 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints and quarts 15 minutes. For processing above 1,000 feet altitude, see page 5 for recommended pounds pressure.

SPAGHETTI SAUCE WITHOUT MEAT

30 pounds tomatoes	¼ cup packed brown sugar
1 cup chopped onion	4 tablespoons dried parsley
1 cup chopped celery or green pepper	2 tablespoons dried oregano
1 pound fresh mushrooms, sliced (optional)	4½ teaspoons salt
5 cloves garlic, minced	2 teaspoons black pepper
¼ cup vegetable oil	

Note: Do not increase the proportion of onion, pepper, or mushrooms.

Wash tomatoes and dip in boiling water for 30 to 60 seconds or until skins split. Dip in cold water and slip off skins. Remove cores and quarter tomatoes. Boil for 20 minutes, uncovered, in a large pot. Put through food mill or sieve.

Sauté onion, celery or pepper, mushrooms (if desired), and garlic in vegetable oil until tender. Combine vegetables, tomatoes, sugar, parsley, oregano, salt, and pepper.

Bring to a boil. Simmer, uncovered, stirring frequently until thick enough for serving. At this time, the initial volume will have been reduced by nearly one-half.

Fill hot jars with hot sauce, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Yield: About 9 pints.

Dial Gauge Canner: Process at 11 pounds pressure, pints 20 minutes and quarts 25 minutes. For processing above 2,000 feet altitude, see page 5 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 20 minutes and quarts 25 minutes. For processing above 1,000 feet altitude, see page 5 for recommended pounds pressure.

SPAGHETTI SAUCE WITH MEAT

30 pounds tomatoes	¼ cup packed brown sugar
2½ pounds ground beef or sausage	4 tablespoons dried parsley
1 cup chopped onion	2 tablespoons dried oregano
1 cup chopped celery or green pepper	4½ teaspoons salt
1 pound fresh mushrooms, sliced (optional)	2 teaspoons black pepper
5 cloves garlic, minced	

Note: Do not increase the proportion of onion, pepper, or mushrooms.

Wash tomatoes and dip in boiling water for 30 to 60 seconds or until skins split. Dip in cold water and slip off skins. Remove cores and quarter tomatoes. Boil for 20 minutes, uncovered, in a large pot. Put through food mill or sieve.

Brown beef or sausage. Add onion, celery or green pepper, mushrooms (if desired), and garlic. Cook until vegetables are tender. Combine with tomatoes in large pot. Add sugar, parsley, oregano, salt, and pepper.

Bring to a boil. Simmer, uncovered, stirring frequently until thick enough for serving. At this time, the initial volume will have been reduced by nearly one-half.

Fill hot jars with hot sauce, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Yield: About 9 pints.

Dial Gauge Canner: Process at 11 pounds pressure, pints 60 minutes and quarts 70 minutes. For processing above 2,000 feet altitude, see page 5 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 60 minutes and quarts 70 minutes. For processing above 1,000 feet altitude, see page 5 for recommended pounds pressure.

VEGETABLES

Pressure canning is the only safe method for canning vegetables.

Young, tender, fresh, and slightly immature vegetables are better for canning than those which are overripe. As a rule, vegetables are best when canned immediately after picking, since flavor decreases upon standing and often unpleasant color changes take place. Avoid bruising vegetables because spoilage organisms grow more rapidly on bruised vegetables than on those that are unblemished.

Wash and prepare garden fresh vegetables as you would for cooking. When packing vegetables, always leave 1-inch headspace, or more if directed in recipe, in hot Mason jars.

To hot pack vegetables, precook in boiling water until heated through. Pack precooked vegetables into hot jars and cover with boiling water. Whenever possible, the precooking water should be used as liquid to cover the vegetables after packing into jars. However, there are a few vegetables, such as greens and asparagus, which make the cooking water bitter and undesirable to use.

To raw pack vegetables, simply place the prepared vegetables into hot jars and cover with boiling water.

Salt

Vegetables may be processed with or without salt. Salt is used only for flavor, as it is not used in a large enough quantity to prevent spoilage. If salt is desired, use only canning or pickling salt. Table salt contains anti-caking agents that may cause cloudiness in the liquid inside the jars.

The recommended amount of salt is ½ teaspoon for each pint jar and 1 teaspoon for each quart jar.

Altitude Adjustment

When pressure canning at altitudes of 2,000 feet or below (dial gauge canner) or 1,000 feet or below (weighted gauge canner), process according to specific recipe. When pressure canning above 2,000 feet altitude (dial gauge canner) or above 1,000 feet (weighted gauge canner), process according to the following chart.

Altitude Chart for Canning Vegetables

Altitude	Dial Gauge Canner	Weighted Gauge Canner
	Pints and Quarts	Pints and Quarts
1,001–2,000 ft.	11 pounds	15 pounds
2,001–4,000 ft.	12 pounds	15 pounds
4,001–6,000 ft.	13 pounds	15 pounds
6,001–8,000 ft.	14 pounds	15 pounds

Processing time is the same at all altitudes.

CANNING RECIPES: VEGETABLES

ASPARAGUS

Wash and drain asparagus. Remove tough ends and scales. Rinse. Leave asparagus whole or cut into pieces.

Hot Pack: Cover asparagus with boiling water and boil 2 to 3 minutes. Pack hot asparagus loosely in hot jars, leaving 1-inch headspace.

Raw Pack: Pack raw asparagus tightly in hot jars, leaving 1-inch headspace.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 30 minutes and quarts 40 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 30 minutes and quarts 40 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

BEANS OR PEAS—DRY

Sort out and discard any discolored beans. Rehydrate beans or peas using one of the following methods:

- ◆ Place dry beans or peas in a large pot and cover with water. Soak 12 to 18 hours in a cool place. Then drain.
- ◆ Cover beans with boiling water in a large pot. Boil 2 minutes, remove from heat and soak 1 hour. Then drain.

Hot Pack: Cover beans soaked by either method with fresh water and boil 30 minutes. Add salt to hot jars, if desired (page 7). Fill jars with beans or peas and cooking water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 75 minutes and quarts 90 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 75 minutes and quarts 90 minutes. For processing above 1,000 feet altitude, see page 7 above for recommended pounds pressure.

BEANS—FRESH LIMA, BUTTER, PINTO, OR SOY

Shell and wash young, tender beans thoroughly.

Hot Pack: Cover beans with boiling water and bring to a boil. Boil 3 minutes. Pack hot beans loosely in hot jars, leaving 1-inch headspace.

Raw Pack: Pack raw beans loosely in hot jars, leaving 1-inch headspace in pint jars. For quarts, leave 1½-inch headspace if beans are small and 1¼-inch headspace if beans are large.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 40 minutes and quarts 50 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 40 minutes and quarts 50 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

BEANS—GREEN, WAX, ITALIAN

Wash young, tender beans thoroughly. Remove stem and blossom ends or any strings. Leave whole or cut into 1-inch pieces.

Hot Pack: Cover beans with boiling water and boil 5 minutes. Pack hot beans loosely in hot jars, leaving 1-inch headspace.

Raw Pack: Pack raw beans tightly in hot jars leaving 1-inch headspace.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 20 minutes and quarts 25 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 20 minutes and quarts 25 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

BEETS

Trim tops of young, tender beets, leaving 1 to 2 inches of stem and root to reduce bleeding of color. Wash thoroughly.

Hot Pack: Cover beets with boiling water and boil 15 to 25 minutes or until skins slip off easily. Remove skins, stems, and roots. Small beets may be left whole. Cut medium or large beets into ½-inch cubes or slices; halve or quarter very large slices. Pack hot beets in hot jars, leaving 1-inch headspace.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 30 minutes and quarts 35 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 30 minutes and quarts 35 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

CARROTS

Wash thoroughly and peel young, tender carrots. Carrots may be left whole, sliced, or diced.

Hot Pack: Cover carrots with water, bring to a boil, and simmer 5 minutes. Pack hot carrots in hot jars, leaving 1-inch headspace.

Raw Pack: Pack raw carrots tightly in hot jars, leaving 1-inch headspace.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 25 minutes and quarts 30 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 25 minutes and quarts 30 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

CORN—WHOLE KERNEL

Husk and remove silk from young, tender, freshly picked corn; wash ears. Blanch 3 minutes in boiling water. Cut corn from cob at about three-fourths the depth of the kernel. Do not scrape cob.

Hot Pack: For each quart of corn, add 1 cup boiling water. Bring to a boil and simmer 5 minutes. Pack hot corn loosely in hot jars, leaving 1-inch headspace.

Raw Pack: Pack raw corn loosely in hot jars, leaving 1-inch headspace.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 55 minutes and quarts 85 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 55 minutes and quarts 85 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

GREENS

Sort young, tender, freshly picked greens; discard wilted or tough leaves, stems, and roots. Wash greens thoroughly.

Hot Pack: Blanch 1 pound of greens at a time, until well wilted (about 3 to 5 minutes). Pack hot greens loosely in hot jars, leaving 1-inch headspace.

Add salt, if desired (page 7). Cover with fresh boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 70 minutes and quarts 90 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 70 minutes and quarts 90 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

MUSHROOMS

Trim stems and discolored parts of mushrooms. Soak mushrooms in cold water for 10 minutes to remove soil. Wash in clean water. Leave small mushrooms whole; cut larger ones in half or in quarters.

Hot Pack: Cover mushrooms with water and boil 5 minutes. Pack hot mushrooms in hot jars, leaving 1-inch headspace. For better color, add 1/8 teaspoon of ascorbic acid per pint.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, half-pints and pints 45 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, half-pints and pints 45 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

OKRA

Wash and trim young, tender okra pods. Remove stem, without cutting into pods if okra is to be canned whole. If desired, slice okra into 1-inch pieces.

Hot Pack: Cover okra with hot water and boil 2 minutes. Pack hot okra in hot jars, leaving 1-inch headspace.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 25 minutes and quarts 40 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 25 minutes and quarts 40 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

PEAS—GREEN

Wash and shell young, tender freshly picked green peas. Rinse.

Hot Pack: Cover peas with boiling water and bring to a boil. Boil 2 minutes. Pack hot peas loosely in hot jars, leaving 1-inch headspace. Do not shake or press down.

Raw Pack: Pack peas loosely in hot jars, leaving 1-inch headspace. Do not shake or press down.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints and quarts 40 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints and quarts 40 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

PEPPERS—HOT OR SWEET (including bell, chile, jalapeño, and pimiento)

Preparation of chile peppers: Cut two or four slits in each pepper. Blister using one of the following methods:

- ◆ Oven or broiler method: Place chile peppers in a 400°F oven or broiler for 6 to 8 minutes until skins blister.
- ◆ Range-top method: Cover hot burner, either gas or electric, with heavy wire mesh. Place chiles on wire mesh for several minutes until skins blister.

Allow peppers to cool. Place in a pan and cover with a damp cloth. After several minutes, peel peppers. Remove stems and seeds.

Preparation of other peppers: Remove stems and seeds; blanch 3 minutes.

Hot Pack: Small peppers may be left whole. Large peppers may be quartered. Pack peppers loosely in hot jars, leaving 1-inch headspace.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 35 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 35 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

POTATOES—SWEET

Wash small to medium size sweet potatoes.

Hot Pack: Boil or steam sweet potatoes just until partially soft (15 to 20 minutes). Remove skins and cut into pieces of uniform size. **CAUTION!** Do not mash or purée potatoes as processing time may not be adequate for mashed or puréed product. Pack hot sweet potatoes in hot jars, leaving 1-inch headspace.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 65 minutes and quarts 90 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 65 minutes and quarts 90 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

POTATOES—WHITE

Wash, peel, and rinse new potatoes 1 to 2 inches in diameter. If desired, cut into ½-inch cubes. Place in ascorbic acid solution (1 teaspoon ascorbic acid to 1 gallon water) to prevent darkening. Drain.

Hot Pack: Cover potatoes with hot water and bring to a boil. Boil whole potatoes for 10 minutes, cubes for 2 minutes. Pack hot potatoes in hot jars, leaving 1-inch headspace.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 35 minutes and quarts 40 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 35 minutes and quarts 40 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

PUMPKIN AND WINTER SQUASH

Wash and remove seeds from small size pumpkins or squash. Cut into 1-inch slices and peel. Cut flesh into 1-inch cubes.

Hot Pack: Boil cubes in water for 2 minutes. **CAUTION!** Do not mash or purée as processing time may not be adequate for puréed product. Pack hot pumpkin or squash cubes loosely in hot jars, leaving 1-inch headspace.

Add salt, if desired (page 7). Cover with boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 55 minutes and quarts 90 minutes. For processing above 2,000 feet altitude, see page 7 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 55 minutes and quarts 90 minutes. For processing above 1,000 feet altitude, see page 7 for recommended pounds pressure.

MEAT, GAME, AND POULTRY

Pressure canning is the only safe method for canning meat, game, and poultry.

Meat, game, and poultry should be handled carefully to avoid contamination. Keep it as cool as possible during preparation for canning, handle rapidly, and process as soon as it is packed.

Use good quality product that has been trimmed of gristle, fat, and bruised spots. The hot pack is recommended for the best liquid cover and quality during storage.

To make broth, place bony pieces in a large pot and cover with cold water. Simmer until meat is tender. Discard fat. Add boiling broth to hot jars packed with precooked meat or poultry.

Salt

Meat, game, and poultry may be canned with or without salt. Salt is used only for flavor, as it is not used in a large enough quantity to prevent spoilage. If salt is desired, use only canning or pickling salt. Table salt contains anti-caking agents that may cause cloudiness in the liquid inside the jars.

The recommended amount of salt is ½ teaspoon for each pint jar and 1 teaspoon for each quart jar.

Altitude Adjustment

When pressure canning at altitudes of 2,000 feet or below (dial gauge canner) or 1,000 feet or below (weighted gauge canner), process according to specific recipe. When pressure canning above 2,000 feet altitude (dial gauge canner) or above 1,000 feet (weighted gauge canner), process according to the chart on the next page.

Altitude Chart for Canning Meat, Poultry, Fish, Seafood, and Soup

Altitude	Dial Gauge Canner	Weighted Gauge Canner
	Pints and Quarts	Pints and Quarts
1,001–2,000 ft.	11 pounds	15 pounds
2,001–4,000 ft.	12 pounds	15 pounds
4,001–6,000 ft.	13 pounds	15 pounds
6,001–8,000 ft.	14 pounds	15 pounds

Processing time is the same at all altitudes.

CANNING RECIPES: MEAT

CUT-UP MEAT (strips, cubes, or chunks)

Bear, Beef, Pork, Lamb, Veal, and Venison

Remove excess fat. Soak strong-flavored wild meats for 1 hour in brine containing 1 tablespoon of salt per quart of water. Rinse. Remove large bones and cut into desired pieces.

Hot Pack: Precook meat until rare by roasting, stewing, or browning in a small amount of oil. Do not use flour. Pack hot meat loosely in hot jars, leaving 1-inch headspace. Add salt, if desired (see page 11). Cover meat with boiling broth, water, or tomato juice (especially with wild game) leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Raw Pack: Add salt, if desired (see page 11) to hot jars. Pack raw meat loosely in hot jars, leaving 1-inch headspace. **DO NOT ADD LIQUID.** Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 75 minutes and quarts 90 minutes. For processing above 2,000 feet altitude, see chart above for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 75 minutes and quarts 90 minutes. For processing above 1,000 feet altitude, see chart above for recommended pounds pressure.

GROUND MEAT

Bear, Beef, Pork, Lamb, Veal, and Venison

Grind fresh meat in a food processor or meat grinder. For venison, add one part high quality pork fat to three or four parts venison before grinding. For sausage, use freshly made sausage seasoned with salt and cayenne pepper (do not use sage as it may cause a bitter flavor).

Hot Pack: Shape ground meat or sausage into patties or balls. Cook until lightly browned. Ground meat may also be cooked without shaping. Drain to remove excess fat. Pack hot meat loosely in hot jars, leaving 1-inch headspace. Add salt, if desired (page 11). Cover meat with boiling water, broth, or tomato juice, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 75 minutes and quarts 90 minutes. For processing above 2,000 feet altitude, see page 12 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 75 minutes and quarts 90 minutes. For processing above 1,000 feet altitude, see page 12 for recommended pounds pressure.

CANNING RECIPES: POULTRY

CHICKEN, DUCK, GOOSE, TURKEY

Cut poultry into serving size pieces. If desired, remove bone.

Hot Pack: Precook poultry until two-thirds done by baking, boiling, or steaming. Pack hot poultry loosely in hot jars, leaving 1/4-inch headspace. Add salt, if desired (page 11). Cover poultry with hot broth, leaving 1/4-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Raw Pack: Add salt, if desired (page 25) to hot jars. Pack raw poultry loosely in hot jars, leaving 1/4-inch headspace. **DO NOT ADD LIQUID.** Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner		With Bone	Without Bone
Process at 11 pounds pressure	Pints	65 minutes	75 minutes
	Quarts	75 minutes	90 minutes

For processing above 2,000 feet altitude, see page 26 for recommended pounds pressure.

Weighted Gauge Canner		With Bone	Without Bone
Process at 10 pounds pressure	Pints	65 minutes	75 minutes
	Quarts	75 minutes	90 minutes

For processing above 1,000 feet altitude, see page 12 for recommended pounds pressure.

RABBIT

Soak dressed rabbits 1 hour in water containing 1 tablespoon of salt per quart of water. Rinse. Use preparation procedures and processing times for poultry (page 27 and above), omitting salt.

FISH AND SEAFOOD

Pressure canning is the only safe method for canning fish and seafood.

Only fresh fish should be canned and these should be bled and thoroughly cleaned of all viscera and membranes when caught, or as soon as possible. To prevent spoilage, keep fish and shellfish refrigerated or on ice to maintain a temperature of 40°F or below

CANNING RECIPES: FISH AND SEAFOOD

CLAMS—WHOLE OR MINCED

Keep clams on ice until ready to can. Scrub shells thoroughly and rinse.

Hot Pack: Steam 5 minutes and open. Remove clam meat. Collect and save clam juice. Wash clam meat in salted water using 1½ to 3 tablespoons of salt per gallon of water. Rinse. Cover clam meat with boiling water containing 2 tablespoons of lemon juice or ½ teaspoon of citric acid per gallon. Boil 2 minutes and drain. To make minced clams, grind clams with a meat grinder or food processor. Heat reserved clam juice to boiling. Pack clams loosely in hot jars, leaving 1-inch headspace. Add hot clam juice and, if needed, boiling water, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, half-pints 60 minutes and pints 70 minutes. For processing above 2,000 feet altitude, see page 12 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, half-pints 60 minutes and pints 70 minutes. For processing above 1,000 feet altitude, see page 12 for recommended pounds pressure.

FISH

Salmon, Trout, Steelhead, and other fish except Tuna

Remove head, tail, and fins. Wash fish in cold water.

Raw Pack: Split fish lengthwise and then cut into lengths that fit the jar size being used. Bones can be left in and skin left on, if desired. For halibut, remove the bones and skin. Pack fish tightly in hot jars, leaving 1-inch headspace. Add ½ teaspoon canning salt to each half-pint jar, 1 teaspoon to each pint jar, if desired. **DO NOT ADD LIQUID.** Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, half-pints and pints 100 minutes. For processing above 2,000 feet altitude, see page 12 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, half-pints and pints 100 minutes. For processing above 1,000 feet altitude, see page 12 for recommended pounds pressure.

TUNA

Remove viscera and clean fish thoroughly. Tuna may be canned either raw or precooked. Precooking removes most of the strong-flavored, natural oils.

Hot Pack: Place tuna belly-side down on a rack in the bottom of a large baking pan. Bake at 350°F for 1 hour. Refrigerate cooked fish overnight to firm the meat. Remove skin. Cut meat away from bones; cut out and discard bone, fin bases, and dark flesh. Quarter the pieces; cut quarters crosswise into lengths that fit the jar size being used. Add ½ teaspoon canning salt to each half-pint jar, 1 teaspoon to each pint jar, if desired. Pack fish into hot jars, pressing down gently to make a solid pack, leaving 1-inch headspace. Add water or oil to jars, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Raw Pack: Remove skin. Separate the meat into quarters by cutting the meat away from bones. Cut out and discard bone, fin bases, and dark flesh. Cut quarters crosswise into lengths that fit the jar size being used. Add ½ teaspoon canning salt to each half-pint jar, 1 teaspoon to each pint jar, if desired. Pack fish into hot jars, pressing down gently to make a solid pack, leaving 1-inch headspace. **DO NOT ADD LIQUID.** Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, half-pints and pints 100 minutes. For processing above 2,000 feet altitude, see page 12 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, half-pints and pints 100 minutes. For processing above 1,000 feet altitude, see page 12 for recommended pounds pressure.

STOCK AND SOUP

Pressure canning is the only safe method for canning stock and soup.

Stock and soup are quickly and easily canned. Generally, vegetable soups are more satisfactory if the stock and vegetables are canned separately and combined at the time of serving.

CANNING RECIPES: STOCK AND SOUP

BEEF STOCK

Saw or crack fresh trimmed beef bones to enhance extraction of flavor. Rinse bones.

Hot Pack: Place bones in a large pot and cover with water. Cover pot and simmer 3 to 4 hours. Remove bones. Cool broth; skim off and discard fat. Remove bits of meat from bones and add to broth, if desired. Reheat broth to boiling. Fill hot jars with hot broth, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 20 minutes and quarts 25 minutes. For processing above 2,000 feet altitude, see page 12 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 20 minutes and quarts 25 minutes. For processing above 1,000 feet altitude, see page 12 for recommended pounds pressure.

CHICKEN STOCK

Hot Pack: Place large carcass bones in a large pot; add enough water to cover bones. Cover pot and simmer 30 to 45 minutes or until meat can be easily removed from bones. Remove bones. Cool broth; skim off and discard fat. Remove bits of meat from bones and add to broth, if desired. Reheat broth to boiling. Fill hot jars with hot broth, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 20 minutes and quarts 25 minutes. For processing above 2,000 feet altitude, see page 12 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 20 minutes and quarts 25 minutes. For processing above 1,000 feet altitude, see page 12 for recommended pounds pressure.

SOUPS

Vegetable, Dried Bean or Pea, Meat, Poultry, or Seafood*

Choose your favorite vegetables, dried beans or peas, meat, poultry, or seafood ingredients for soup as long as those ingredients have their own individual canning recommendations. Do not use ingredients for which there are no canning recommendations.

CAUTION! In accordance with USDA guidelines, do not add noodles or other pasta, rice, flour, cream, milk, or other thickening agents to home canned soups as processing time may not be adequate.

Hot Pack: Prepare vegetables, meat, poultry, and seafood as described in the hot pack directions for the individual ingredients. **If dried beans or peas are used, they must be fully rehydrated before adding to other ingredients** (see page 8). Combine solid ingredients with meat broth, tomatoes, or water to cover. Boil 5 minutes. Salt to taste, if desired. Fill jars halfway with solid ingredients and then add soup liquid, leaving 1-inch headspace. Remove air bubbles. Clean jar rims. Position lids and secure with bands.

Dial Gauge Canner: Process at 11 pounds pressure, pints 60 minutes and quarts 75 minutes. For processing above 2,000 feet altitude, see page 12 for recommended pounds pressure.

Weighted Gauge Canner: Process at 10 pounds pressure, pints 60 minutes and quarts 75 minutes. For processing above 1,000 feet altitude, see page 12 for recommended pounds pressure.

***Note:** Cooked seafood can also be added as part of the solid mixture, but the processing time must be increased to 100 minutes for pints and quarts.

HELPFUL HINTS FOR PRESSURE CANNING

- ◆ Bubbles often appear in the jar after removal from the canner because food is still boiling in the jar. Ordinarily bubbles do not appear once the product has been allowed to thoroughly cool.
- ◆ Jar breakage during processing is caused by: (1) packing jar too solidly or overfilling; (2) weakened, nicked, or chipped jars; (3) jars touching bottom of canner; (4) failure to tighten screw bands according to manufacturer's directions; (5) use of jars other than Mason jars.
- ◆ Liquid lost from jars during processing is caused by: (1) packing jar too solidly or overfilling; (2) insufficient exhaust period; (3) air was exhausted too vigorously during the 10-minute venting period; (4) variation or sudden reduction of pressure in the canner; (5) failure to tighten screw bands according to manufacturer's directions.
If liquid is lost during processing, do not open jar to replace liquid. Loss of liquid will not cause spoilage, but food above the liquid will discolor. If at least half of the liquid is gone, place the jar in the refrigerator and use the food within 2 to 3 days.
- ◆ Flat sour, a type of food spoilage, is caused by canning overripe food or allowing precooked foods to stand in jar too long before processing. It may be prevented by using fresh products and properly processing, cooling, and storing. Flat sour shows no indication of spoilage until jar is opened. Discard contents.
- ◆ Food spoilage or jars not sealing is caused by: (1) failure to follow exact timetables and recipes; (2) failure to wipe sealing edge of jar clean before placing lid on jar; (3) foods, seeds, or grease lodged between lid and jar; (4) jars which are nicked, cracked, or have sharp sealing edges; (5) failure to tighten screw bands according to manufacturer's directions; (6) turning jars upside down while jars are cooling and sealing.
- ◆ Mold can form only in the presence of air. Therefore, jars are not sealed if mold is present. Discard contents.
- ◆ If a jar does not seal, refrigerate it and use the food within 2 to 3 days. Otherwise, reprocess or freeze the food within 24 hours. Freeze or repack using new lids. Reprocess for the full recommended processing time.
- ◆ The black deposit sometimes found on the underside of a lid is caused by tannins in the food or hydrogen sulfide which is liberated from the food by the heat of processing. This does not indicate spoilage.

- ◆ As a safeguard against using canned foods which may be affected with spoilage that is not readily detected, boil all low-acid foods and tomatoes for 10 minutes at altitudes below 1,000 feet. Extend the boiling time by 1 minute for each 1,000 foot increase in altitude.
- ◆ Two-piece vacuum caps (lids and bands) seal by the cooling of the contents of the jar, not through pressure of the screw band on the lid. Therefore, although the screw band is firmly tight, the jar is not sealed until cooled. During processing, the flexible metal lid permits air to be exhausted from the jar.
- ◆ Adjust two-piece vacuum caps by screwing bands down evenly and firmly until a point of resistance is met—fingertip tight. Do not use undue exertion.
- ◆ It is better to overprocess food than underprocess as overprocessing will do little harm, but underprocessing may result in spoilage and unsafe food.
- ◆ Discoloration of peaches and pears on the top of the jar is often due to enzyme activity which means that the processing time was not long enough or the temperature not high enough to render the enzymes inactive.
- ◆ The loss of color from beets during canning is usually due to the variety of beets used. Two varieties that retain color well are Ruby Queen and Detroit Red. To reduce bleeding of color, precook beets with entire root and 1 to 2 inches of stem. Remove stem and root after precooking.
- ◆ Fruit which has been canned without sugar will often turn brown when exposed to air just as fresh fruit does.
- ◆ The diameter of Mason jars may vary from one manufacturer to another. Before filling Mason jars, test load your canner. It may be necessary to double-deck pint and half-pint jars to reach the maximum capacity of your canner. It is recommended that you stagger the jars by placing one jar on top of two. Jars may touch. The canning rack which accompanied your pressure canner must be placed on the bottom of the canner to prevent jar breakage. Although it is not necessary to use a rack between layers of jars, if you wish to do so, a rack can be ordered from the Presto Consumer Service Department. See back cover for contact information.
- ◆ For more information, visit www.GoPresto.com/recipes/canning.

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SERVICE AND PARTS INFORMATION

If you have any questions regarding the operation of your Presto® canner or need parts for your canner, contact us by any of these methods:

- Call 1-800-877-0441 weekdays 8:00 AM to 4:00 PM (Central Time)
- Email us through our website at www.GoPresto.com/contact
- Write: National Presto Industries, Inc.
Consumer Service Department
3925 N. Hastings Way
Eau Claire, WI 54703-3703

When contacting the Consumer Service Department or when ordering replacement parts, please specify the model number found stamped on the bottom of the canner or the nameplate on the cover.

Inquiries will be answered promptly by telephone, email, or letter. When emailing or writing, please include a phone number and a time when you can be reached during weekdays, if possible.

Any maintenance required for this canner should be performed by our Factory Service Department. (**Note:** We do recommend that you call our Consumer Service Department at 1-800-877-0441 prior to sending your canner in for repair.) Be sure to indicate date of purchase and a description of the problem when sending a canner for repair.

Replacement canner parts may be obtained at hardware stores and other retail outlets. **Use only genuine Presto® replacement parts.** Parts may also be ordered online at www.GoPresto.com.