# RATIO

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The Four was designed to make your coffee brewing routine something to look forward to.

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When using electrical appliances, basic safety precautions should always be followed to prevent the risk of fire, electric shock, burns, or other injuries and damages.

# READ ALL OPERATING AND SAFETY INSTRUCTIONS CAREFULLY.

- Scalding may occur if the brew basket is removed during the brewing process.
- Do not touch hot surfaces. The top of the unit will get hot when brewing. Support the base of the machine when moving the unit.
- To protect against fire, electrical shock, and injury, do not immerse cord, plug, or appliance in liquid.
- Unplug from outlet when not in use, and before cleaning. Allow it to cool before putting on, or taking off parts and before cleaning the appliance.
- Machine must not be in operation when unplugging from the outlet. To stop the unit at any time during operation, press and hold the power button for 2 seconds.

- The voltage in your home should correspond to the voltage indicated on the bottom of your appliance.
- Close supervision is necessary when any appliance is used by or near children.
- Do not operate appliance with a damaged cord or plug.
- Do not operate appliance after the appliance malfunctions, or has been dropped or damaged in any manner. Return appliance to the nearest authorized service facility for examination, repair or adjustment.
- If you did not purchase your machine directly from Ratio in the US, please reach out first to the business where you purchased your coffee maker.
- The use of accessory attachments not recommended by Ratio may result in fire, electric shock or injury.
- Do not use outdoors or in a damp area. Do not place the appliance on a hot surface.

- Do not let the cord hang over the edge of a table or counter, or touch hot surfaces.
- Do not place on or near a hot gas burner, electric burner, or in a heated oven.
- To disconnect the brewer, remove the plug from the electrical wall outlet.
- Do not use this brewer for anything other than its intended use.
- Place the brewer on a level surface before using.
- Do not operate the brewer without water.
- Do not use hot water. Only fresh, cold, filtered water should be used to fill the water tank.
- Do not use a cracked carafe.
- Do not clean any part of the machine or carafe with harsh detergents, steel wool pads or other abrasive materials.
- Do not place the carafe in the dishwasher. Hand wash only.
- The carafe is designed for use with this appliance. It must never be used on a range or stove top.

- Do not operate with a damaged cord or plug or after the coffee maker malfunctions, or has been damaged in any manner. Return it to an authorized service facility for examination, repair or adjustment in order to avoid a hazard.
- Ratio brewers can be used by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the brewer in a safe way and understand the hazards involved.
- This appliance can be used by children aged from 8 years and above if they have been given supervision or instruction concerning use of the brewer in a safe way and if they understand the hazards involved. Cleaning and maintenance shall not be performed by children unless they are older than 8 and supervised. Keep the brewer and its cord out of reach of children aged less than 8 years.
- Children should not play with the appliance.
- The coffee maker must not be immersed in water.

- The coffee-maker should not be placed in a cabinet when in use.
- This coffee maker is intended to be used in household and similar applications such as:
  - staff kitchen areas in shops, offices and other working environments;
  - by clients in hotels, motels and other residential type environments;
  - bed and breakfast type environments.
- Scalding may occur if the lid is removed during the brewing cycles.
- The carafe is designed for use with this appliance. It must never be used on a range top.
- Do not set a hot carafe on a wet or cold surface.
- Do not use a cracked carafe or a carafe having a loose or weakened handle.
- Do not clean carafe with cleansers, steel wool pads, or other abrasive material.
- A short detachable power-supply cord is provided to reduce risks resulting from becoming entangled in or tripping over a longer cord.

- Longer detachable power-supply cords or extension cords are commonly available and may be used if care is exercised in their use.
- If a long detachable power-supply cord or extension cord is used:
  - The marked electrical rating of the detachable power-supply cord or extension cord should be at least as great as the electrical rating of the appliance;
  - The longer cord should be arranged so that it will not drape over the counter top or table top where it can be pulled on by children or tripped over.
- This appliance has a polarized plug (one blade is wider than the other). To reduce the risk of electric shock, this plug is intended to fit into a polarized outlet only one way. If the plug does not fit fully into the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Do not attempt to modify the plug in any way.

# SAVE THESE INSTRUCTIONS. YOU MIGHT NEED THEM.

## 02 DETAILED INSTRUCTIONS

#### Fill the tank.

Fill the water tank to the appropriate line for your preferred amount of coffee. There are markings for 4 different servings, each indicating a 5 ounce cup increment (the maximum volume is 600 ml, or around 20 oz). To achieve the best taste and prolong the life of your brewer, only use fresh, cool, filtered water.

#### Add your filter.

The Ratio Four brew basket is designed to use a flat bottom filter such as Melitta® 8-12 cup size. You may also use another pour over device with the Ratio Four. Simply remove the brew basket and place your preferred pour over device on the glass carafe. Note: The alternative pour over device must fit on top of the glass carafe, centered under the shower head. See detailed instructions later in this booklet.

#### Add coffee grounds.

Add freshly ground coffee to the filter in the brew basket. We recommend using a gram scale, though carefully measured scoops will also work. For a full batch, use 35 grams (5 tablespoons) of coffee and fill the water reservoir to the 4 cup mark. For a half batch, use 18 grams (or 2 ½ tablespoons) of coffee and fill to the 2 cup mark. See below for a detailed brew chart. To brew your own recipe, we recommend a ratio of 1:17 coffee:water, meaning 1 gram of coffee for every 17 ml of water. For a stronger cup, try a 1:16 or 1:15 ratio.

# 02 DETAILED INSTRUCTIONS

#### Begin the brewing cycle by pushing the start button.

Simply press the start button, and the Four will brew your coffee like a pour over. First, the Bloom cycle distributes a small amount of water throughout the coffee to ensure even saturation. After a brief pause, the Brew cycle will gently pulse hot water on the coffee grounds until all the water is pulled from the reservoir. The average brewing temperature on the Four is around 200° F.

#### If you are using an alternate pour over device with your Four, simply follow these steps:

- Remove the Four filter basket.
- · Add a filter to your desired pour over and place it on the glass carafe beneath the brewer's shower head.
- Next, add a small amount of water (around 3 oz or 100 grams) to the water reservoir and press start.
- The Four will dispense hot water on the filter, which will preheat the brew method and rinse the paper filter.
- Discard the rinse water, or use it to preheat your coffee cup.
- Add ground coffee to your pour over device and add filtered water to the reservoir (we recommend following the same 1:17 coffee:water ratio).
- Press the start button for a standard bloom (around 4 oz or 120 grams), or hold the start button for 3 seconds to activate a smaller bloom (around 2 oz or 60 grams)

# 02 DETAILED INSTRUCTIONS

**CAUTION:** Very hot water leaves the shower head when the brewer is on and shortly after dispensing. Be sure all lights on the brewer are off to prevent the possibility of burns. To stop the unit at any time during a brew, press and hold the start button for 2 seconds until it turns off.

#### Suggested brew ratios of water to ground coffee:

Tank Marking	Water Volume	Coffee Dose
1 mark (1 cup)	5oz / 148ml	9 grams / 1 heaping tbsp
2 mark (2 cups)	10oz / 296ml	17 grams / 2 ½ tbsp
3 mark (3 cups)	15oz / 444ml	26 grams / 3 ½ tbsp
4 mark (4 cups)	20oz / 591ml	35 grams / 5 tbsp

#### **03 THE BREWING PHASES**

#### Bloom

When you press the start button on your Ratio brewer, it will automatically progress through brewing stages that are designed to mimic pour over coffee brewing. The first stage is the Bloom. During the Bloom stage, indicated by the light under the word "BLOOM" on the brewer, the Ratio Four will deliver a small amount of hot water to saturate the coffee grounds in preparation for the full brewing cycle. This step is necessary to prewet the coffee and to allow naturally occurring CO2 to be released, which is a byproduct of sugar browning during the coffee roasting process. The bloom is an important step in the brewing process to ensure that coffee is brewed evenly. The Four features two bloom settings:

- Standard Bloom: Press the start button briefly to start the standard bloom. The Four will dispense around 4 oz or 120 grams hot water before pausing.
- Short Bloom: Hold the start button for 3 seconds to activate a smaller bloom. The Four will dispense around 2 oz or 60 grams of hot water before pausing.

## **03 THE BREWING PHASES**

#### Brew

After a few moments, the Ratio Four indicator light will move from "BLOOM" to "BREW", and the brewer will begin pulsing hot water onto the coffee grounds. Brewing time will vary based on the amount of water added, ranging from around 2 minutes for 1 cup to 4 minutes for 4 cups. The Four will gently pulse hot water utilizing its wide shower head, providing a very even and consistent brewing environment for the coffee.

#### Ready

When the indicator light moves to "READY", the brew cycle is complete and the coffee is ready to drink. Enjoy!

# 04 TROUBLESHOOTING

What's Wrong?	Indicator Status	Potential Problem	Try This
Machine will not turn on or brew.	No lights	The power supply is interrupted.	Make sure machine is correctly plugged into a working outlet.
	The three lights blink for 10 seconds and then turn off.	There is not enough water in the tank.	Add at least 5oz / 150ml of cold water to the tank.
Coffee brewing time takes longer than 5 minutes.	– Normal	There may be mineral (scale) build-up in the machine that is preventing normal operation.	Descale your machine and carafe with the Ratio Wash liquid, or another coffee descaling product (see section 05 for details).
Water dripping out of shower head slowly.			

# 04 TROUBLESHOOTING

What's Wrong?	Indicator Status	Potential Problem	Try This
Brew basket overflows.	Normal	Too much coffee or the grind is too fine.	For a full batch, start with 70g of coffee. The Six uses a coarser grind than standard drip machines. Grind should resemble raw sugar.
		Using two or more paper filters, or a permanent filter together with a paper filter.	Use just one paper filter.
Coffee tastes bitter.	Normal	Too much coffee or the grind is too fine.	See suggested brew ratio chart. Texture of ground coffee should resemble kosher salt.
Coffee tastes weak.	Normal	Too little coffee or the grind is too coarse.	
Coffee does not bloom.	Normal	Coffee is stale.	Use coffee within 4 weeks of roast date.

Still need help? Contact help@ratiocoffee.com

To keep the Ratio Four looking and performing its best, we recommend a regular routine of cleaning the machine with an all-natural detergent and descaler like Halefresh. This type of product will keep the tank, supply lines, and carafe clean and free of mineral build-up. Depending on the water hardness in your area, you may want to use the wash as often as every other week. For very hard water (over 7 grains per gallon), we recommend using a water softener.

You may use other cleaning and descaling products, just be sure that they are intended for home coffee machines. Commercial cleaning products, or those not designed for coffee machines, can damage your Ratio Four and might invalidate the warranty. We also do not recommend using vinegar to descale your machine, as it is often not strong enough of an acid to remove mineral buildup, and it can leave behind residue that will affect the aroma of your coffee.

After the brew cycle finishes, there may be some condensation build-up on the front of the machine. This can be easily removed by wiping down the machine with a lint free cotton or microfiber towel. Please use caution, as the water vapor and shower head may still be hot. If left on the surface, this condensation should evaporate within a few minutes, but depending on the mineral content of your water, over time spots may appear on the surface of the machine. Use the descaling product to remove any hard water spots on your machine.

- 1. Add one package of cleaning powder or liquid to a clean pouring vessel, then add about 20oz/600ml of warm, not hot, water to dilute.
- 2. Pour into the Ratio water tank. Top up with more water to the fill line.
- 3. Brew one complete cycle.
- 4. Rinse all components. Repeat brew cycle three times with clean water.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. If swallowed, seek medical advice immediately and show the container or label.

#### **Removable Shower Head**

The Ratio Four features a removable shower head. To remove it, follow the following steps:

- Remove the brew basket from the Four
- Locate the shower head nestled in the molding, located just above the where the brew basket
   normally sits
- Place one hand on the top of the brewer and use your other hand to rotate the right side of the shower head toward the front of the brewer (if you are looking at the shower head, this direction is counter-clockwise).
- Place the shower head on a surface with the metal surface facing down.
- Using the raised tabs, rotate the back of the shower head counter-clockwise until it stops. Lift the base away from the shower head to access the inside.
- The showerhead is held in place by a silicone gasket. Simply push the shower head away from the carrier to remove both. When the metal shower head is isolated, you may soak it in a descale solution to remove mineral buildup. Do not soak the silicone gasket in a descale solution, as this will begin to compromise the material.
- When re-assembling, be sure the flat side of the silicone gasket is against the upper ridge of the shower head. Push it into the carrier so the shower head protrudes to the edge of the assembly.

- Add the base of the assembly by lining up the three ears in the slots and turning clockwise to lock.
- To mount the shower head back in the brewer, gently press the shower head against the brewer inside the shower head recess, and rotate clockwise until it locks (turn the left side toward the front of the brewer).

## 06 5-YEAR LIMITED WARRANTY

We proudly offer this Limited Warranty for the Ratio Four coffee machine in the USA.

#### What This Warranty Covers

Ratio LLC warrants the Ratio Four coffee machine for 5 years from the date of original purchase against defects in material and workmanship. If during this period, your Ratio Four coffee machine is determined to be defective following our inspection, we will repair or replace your coffee machine at our sole discretion. These are the exclusive and sole remedies available under this Warranty.

#### Warranty Exclusions

Our warranty does not apply to any product failure arising from:

- Mineral build-up in tank and supply lines (failure to "descale")
- Use of improper or unregulated voltage or power supply
- · Abuse or misuse (including accidental damage to unit or glass parts)
- · Improper or incorrectly performed maintenance or repairs
- Normal wear and tear
- Commercial use
- Use of very hard or very soft water. Ratio brewers require water hardness of 2-4 grains per gallon.

For warranty terms and service outside the USA, please visit ratiocoffee.com/warranty

## 06 5-YEAR LIMITED WARRANTY

#### How To Get Warranty Service in the United States

- If your Ratio Four coffee machine needs service, please contact us at help@ratiocoffee.com or call us at 800.261.9640. Our team will arrange the inspection of your machine at our service center.
- You may be asked to register your Ratio Four coffee machine with proof of purchase and serial number on the warranty & returns section of our website before we issue warranty service. Without proof of purchase, your warranty period will run from the date of our first sale of the coffee machine in our records.
- Do not ship your coffee machine to us without a return authorization. You are responsible for shipping charges. Returned coffee machines must be shipped in proper packaging, with insurance for loss or damage, as we are not responsible for products lost or damaged in shipment.
- Once we receive your coffee machine, and determine that the unit is covered by warranty, we will repair
  or replace your coffee machine at our discretion. If we determine that your unit only requires cleaning,
  or requires repairs under Warranty Exclusions, we will contact you and offer service for a fixed charge,
  or return your unit without repair. In this case you are responsible for all return shipping charges.
- Replaced or repaired units will be subject to the same 5-year warranty period dating back to the purchase date of the original product.

For warranty service outside the USA, please visit ratiocoffee.com/warranty

## 07 DISCLAIMER AND LIMITATION OF LIABILITY

THE WARRANTIES SET FORTH HEREIN ARE EXCLUSIVE AND NO OTHER EXPRESS WARRANTIES ARE MADE BY RATIO OR ARE AUTHORIZED TO BE MADE WITH RESPECT TO THE PRODUCT. RATIO LIMITS THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO THE DURATION OF THIS LIMITED WARRANTY. IN NO EVENT WILL RATIO, ITS DISTRIBUTORS, OR ITS RESELLERS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS OR COMMERCIAL LOSS ARISING FROM USE OR FAILURE OF OUR PRODUCTS, TO THE FULL EXTENT THOSE DAMAGES CAN BE DISCLAIMED UNDER APPLICABLE LAW. THE REMEDIES PROVIDED UNDER THIS LIMITED WARRANTY ARE EXCLUSIVE.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.