



Espresso V3

USER MANUAL
VERSION 5.2
OCTOBER 2022



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Terms & Conditions

Slayer makes no representations or warranties with respect to the contents of this publication. Information contained herein is subject to change without notice. Every precaution has been taken in the preparation of this manual; nevertheless, Slayer assumes no responsibility for errors or omissions or any damages resulting from the use of this information.

Read this manual completely before installing and operating your Slayer espresso machine. Incorrect installation and operation may result in damage to the equipment, personal injury, or even death. Disregarding the instructions contained herein indemnifies Slayer from all resulting damages and may void the equipment warranty.

For additional safety precautions, see the safety advisory on page 7.



Resources

For quick installation, scan the QR code label affixed to your machine's crate. For additional details or installation assistance, contact your authorized Slayer reseller or the appropriate party listed below.

SALES

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+1 (206) 284-7171 EXT. 2

MARKETING

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An updated, electronic version of the manual can be accessed from the website: slayerespresso.com/product/espresso-v3





Warranty Information

Slayer provides a 15-month (fifteen month) warranty on all equipment and parts, beginning at the date of shipment from the Seattle headquarters. All equipment and parts are warranted to be free from defect in material or workmanship. Unless otherwise specified in writing, this warranty covers materials only (e.g. equipment, parts) and excludes labor, shipping, and any other costs.

This warranty does not cover accidental damage to equipment, abuse of equipment, or improper use of equipment. "Improper use" includes, but is not limited to, the operation of a machine with inadequately treated water and/or the operation of a machine with inadequate water supply. Any and all damage resulting from inadequate water treatment is expressly excluded from the coverage of this warranty. Read "Water Treatment Requirements" on pg. 8 for information about water-related issues. Damage resulting from improper installation of equipment is expressly excluded from this warranty.

Warranty coverage does not include parts that are subject to normal wear and tear, as determined by Slayer. These include, but are not limited to, shower screens, portafilter gaskets, expansion or anti-suction valves, and Preventative Maintenance parts. Warranty coverage excludes glass or plastic parts.

This warranty will immediately expire if you or a third party performs faulty maintenance, excessive use, or neglect of necessary service. This will include any instances in which, following the occurrence of a defect, you fail to immediately take all suitable measures to limit damage to the equipment and/or fail to provide Slayer with an opportunity to remedy the defect.

Slayer's sole responsibility and liability under the warranty set forth herein is limited to, in Slayer's sole discretion, repair or replacement of defective parts. Unless otherwise specified in writing, this excludes labor, shipping, and any other costs.

To the fullest extent permitted by applicable Washington State (USA) laws, Slayer's warranty set forth herein is limited to the original purchaser of the equipment. Slayer does not, directly or indirectly, offer any warranty to any other person, unless otherwise agreed in writing. Except as expressly provided herein, all goods are provided to you as they are. Slayer disclaims all representations and warranties, whether expressed or implied, including warranties of title, non-infringement, merchantability, and fitness for a particular purpose.

Warranty claims must be authorized by a Slayer Support representative prior to repair or remedial action.

Weight & Dimensions

DEPTH:

Foot to foot: 22 in / 56 cm

Foot to drip tray: 26.5 in / 67.5 cm

2 GROUP WIDTH:

Foot to foot: 30.5 in / 77.5 cm

Incl. handles: 34.2 in / 87 cm

3 GROUP WIDTH:

Foot to foot: 40.5 in / 103 cm

Incl. handles: 44.2 in / 112 cm

HEIGHT:

Top of rear panel: 17 in / 432 mm

Top of brew actuator: 17 in / 432 mm

Top of engaged steam actuator: 20 in / 508 mm

Group height, drip tray to portafilter: 43 in / 109 mm

2 GROUP WEIGHT:

Dry: 196 lbs / 89 kg

Wet: 220 lbs / 100 kg

Shipping max: 326 lbs / 148 kg

3 GROUP WEIGHT:

Dry: 267 lbs / 121 kg

Wet: 305 lbs / 138 kg

Shipping max: 390 lbs / 178 kg

Symbols



GENERIC WARNING



WARNING: ELECTRICAL HAZARD



WARNING: TRAPPING HAZARD, TAKE CARE WITH HANDS



WARNING: HOT SURFACE



ENVIRONMENTAL PROTECTION



THESE PAGES OF THE MANUAL ARE FOR THE USE OF THE WORKER OPERATING THE MACHINE



THESE PAGES IN THE MANUAL ARE TO BE USED BY QUALIFIED, AUTHORIZED TECHNICAL STAFF



Safety Advisory

This guide includes important instructions about safe espresso machine installation, operation, and maintenance. Read this manual completely before installing and operating your Slayer espresso machine. Incorrect installation and operation may result in damage to the equipment, personal injury, or even death. Disregarding the instructions contained herein indemnifies Slayer from all resulting damages and may void the machine's warranty.

Shipping is coordinated by the customer and performed by a third party. Slayer is not responsible for damage incurred during transport. Upon receiving your machine, carefully inspect all packaging, equipment, and accessories for visible damage. Photograph any visible damage to the crate or espresso machine and immediately contact your shipping company representative within seven days of receipt. Comply with shipping company regulations. Do not connect your machine to power, water, or drainage until all issues have been resolved or your Slayer representative or reseller instructs you to do so. Failure to resolve issues before using equipment may result in further damage or injury.

Installation should be performed by qualified personnel only and must comply with all regulations and requirements of the authorities in your area. If guidance is needed to safely install your machine, contact your Slayer representative or reseller.

It is critical that an appropriately-rated and grounded electrical plug is used to supply your machine with power. This is essential for the safe operation and use of the equipment. Contact your Slayer representative or reseller with questions about this requirement. If you are unsure about the safety of the electrical configuration, do not attempt to install your machine.

Your Slayer espresso machine should only be used for the functions it was designed to perform. Using your machine outside of its defined functionality – as it is described in the “Using Slayer” section on pg. 17 of this guide – may be a safety hazard, resulting in property damage, physical injury, or even death, and will immediately void the warranty.

Slayer espresso machines are electrical appliances that should be used in a safe manner appropriate to devices of their kind:

- **Do not** connect your Slayer espresso machine to electrical power through an extension cord. The machine must be directly connected to an appropriately - rated and grounded power source.
- **Do not** position the power cord in walkways or other high-traffic areas.
- Slayer espresso machines are designed only to be used indoors
- **Before performing service on your machine, disconnect the power source and turn off the water feed.**
- Prior to installation, make sure there is a circuit breaker installed

with a distance between the contacts that allows for complete disconnection when there is a category III overload and that provides protection against current leakage equal to 30 mA. The circuit breaker must be installed on the power-supply in compliance with installation rules. If the power-supply is not working properly, the appliance can cause transitory voltage drops. The electrical safety of this appliance is only ensured when it is correctly connected to an efficient earthing system in compliance with the electrical safety laws in force. This fundamental safety requirement must be verified. If in doubt, request that a qualified electrician inspect the system. The manufacturer cannot be held responsible for any damage caused by the lack of an earthing system on the electrical supply.

PLEASE ALSO OBSERVE THE FOLLOWING RULES FOR INSTALLATION AND OPERATION:

- Room temperature must range between 10° and 32°C (50°F and 90°F)
- Do not install in rooms (kitchens) that are cleaned with jets of water or attempt to clean the machine with jets of water.
- When connected to water mains, only use the supplied parts for installation. If other parts are installed, they must be new (unused pipes and gaskets for the water connection) and they must be permitted for contact with water suitable for human consumption (according to local laws in force).
- The mains water pressure connection should be between a minimum of 300 kPa (3 bar) and a maximum of 500 kPa (5 bar).
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they are supervised or given instruction concerning the safe use of the appliance and understand the hazards involved.
- Children must not play with the appliance.
- Cleaning and user maintenance must not be made by children without supervision.
- Use by minors, with or without adult supervision, must not contravene local employment laws.
- Never leave the appliance unattended while it is in use.
- If the appliance is stored in rooms where the temperature can drop below the freezing point, empty the boiler and water circuit tubes.
- Do not expose the appliance to atmospheric agents (rain, sun, and cold).
- **Noise:** assessed acoustic pressure level 70 dB(A) (+/- 1dB).
- If the power-supply cord is damaged, it can only be replaced by qualified and authorized technicians.
- If the machine is used improperly or for purposes other than those described above, it can be a source of danger. The manufacturer will not be held responsible for damages caused by improper use of the appliance.



Water Treatment Requirements

Improper water treatment is the most frequent cause of espresso machine damage. Water is complex and varies significantly between regions, so take great care to test the water quality at your location and adjust as necessary. Employ the help of a reliable company (Slayer recommends OptiPure and BWT) to evaluate your water and recommend and administer treatments.

When evaluating water quality, the two most important factors to consider are calcium carbonate and chloride:

CALCIUM CARBONATE:

Dissolved mineral that determines the "hardness" or "softness" of water.

- The desirable range of hardness is 4-6 grains. Over time, calcium carbonate accumulates as a hard substance, called "scale", and will inhibit the flow of water. Machines subjected to "harder" water (greater than 6 grains) will accumulate scale faster and require maintenance sooner.

CHLORIDE:

Chlorine combined with an electron from a negatively charged ion.

- There are many types of chlorides, including calcium chloride, magnesium chloride, sodium chloride, etc. Chlorides produce salts that impart a strong taste, which alters the flavor of the espresso. Chlorides also encourage pitting corrosion, which causes damage to the machine.

Your water filtration company will create a treatment plan based on your water needs. Choose a filtration company that has solutions for addressing issues related to both calcium carbonate and chloride.

Common treatment options include carbon filtration, ion exchange and reverse osmosis:

CARBON FILTRATION:

Process by which water passes through the granular activated carbon, which attracts and retains many chemicals in the water that have an unpleasant taste or odor.

- Carbon filtration is necessary for all Slayers. For water with 4-6 grains of hardness, carbon filtration is likely the only necessary water treatment.

ION EXCHANGE:

Process by which water passes through an ion exchange system, where where undesirable mineral components are retained and more desirable substances such as sodium are released.

- An ion exchange system should be used in combination with a carbon filtration system and is especially beneficial for water in the range of 6-9

- grains of hardness. This system is relatively inexpensive and effective in removing inorganic substances. It does not, however, remove organic substances, such as bacteria.

REVERSE OSMOSIS WITH BLEND-BACK VALVE (OR REMINERALIZED RO):

Process by which water is forced through a semi-permeable membrane with selective pore sizes at high pressure, then blended with the appropriate amount of desired minerals.

- Reverse osmosis may be a good solution for water in the range of 6-9 grains of hardness, but is mandatory for water above 9 grains. When blending minerals with the filtered water, target a TDS (total dissolved solids) value of 75-125 ppm. Experiment with various TDS levels to determine what is ideal.

- **IMPORTANT:** All Slayer espresso machines need to be connected to a carbon water filter to remove chlorine, sediments, odor, and undesirable tastes from the water. This requirement is in addition to any other necessary water filtration systems.

Filtration requirements may vary seasonally. Water should be tested during each season to determine the best filtration plan. Once a filtration method has been selected, take note of the filter's peak capabilities.

Contact the equipment vendor to inquire about the life expectancy of the filters, then schedule replacement and re- installation accordingly.

Slayer's recommended water recipe for ultimate taste and limited scale:

pH: 7-9

Total Hardness: 2-6 grains

TDS: 50-200 mg/L

Alkalinity: 40-100 mg/L

Chloride: <30 ppm

Silica: <10 ppm

Chloramine: <.1 ppm

Chlorine: <.1 ppm

- **IMPORTANT: Damage to or failure of your machine due to inadequately treated water is not covered under warranty. Every time a new water filter is installed, thoroughly rinse the filter before attaching it to your machine or pump. Run water from the supply line through the filter and down a drain for at least 2 minutes, fully washing the filter and the residue or loose fibers in the filter cartridge. Skipping this step will cause damage to your machine.**



Recommended Tools & Accessories

BEVERAGE PREPARATION

- Espresso grinder
 - Adjustable grind setting
 - Capability for grinding very fine: espresso-to-Turkish
- Gram scale
 - Low resolution: 0.1-gram (1/10-gram) increments
- Shot glass
- Soft towel
- Steaming pitcher
 - Narrow spout
- Tamper
 - 58mm base diameter
- Thermometer

EQUIPMENT CARE & MAINTENANCE

TOOLS

- Allen key
- Crescent wrench
- Flat-head screwdriver
- Grouphead brush
- Needle-nose pliers
- Phillips-head screwdriver
- Pick or awl
- Pliers
- Socket wrench (9/16")
- Wrench

SUPPLIES

- Approved espresso machine cleaner
- Approved espresso machine steam wand cleaner • Non-abrasive surface cleaner
- Slayer lubricant
- Teflon tape
- Tung oil



Installation, dismantling, and adjustments must only be performed by qualified and authorized technicians. Carefully read the warnings and rules in this manual because they provide important information regarding safe installation, use and maintenance of the machine. Keep this booklet handy for easy reference.

Installing Your Machine

Only qualified service personnel should install Slayer espresso machines. For a list of certified Slayer technicians near you please contact our support department. Incorrect installation may result in injury and/or damage to the equipment. Please read the “Safety Advisory” on pg. 7 before beginning installation. The coffee machine should sit on a flat, stable surface at least 1 inch (20 mm) from walls and from the counter. Keep in mind that the highest surface on the machine (the cup-warmer tray) sits at a height of at least 47 inches (1.2 meters). Make sure there is a shelf nearby for accessories.

Install your Slayer espresso machine with the following ordered steps:

- | | |
|-----------------------------|----|
| 1. Prepare Site | 11 |
| 2. Unpack Equipment | 12 |
| 3. Connect Drain Hose | 13 |
| 4. A—C Connect Water Line | 13 |
| 5. Connect Pump | 13 |
| 6. Connect Machine to Power | 14 |
| 7. Fill Tanks | 14 |
| 8. Turn on Heating Elements | 15 |



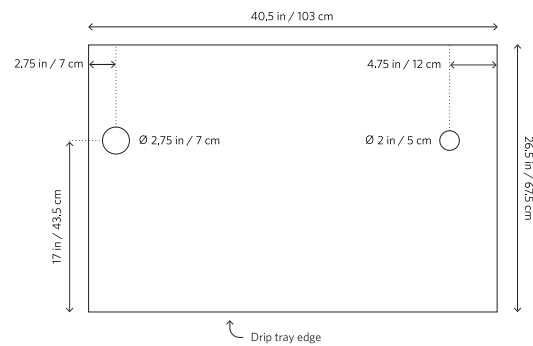
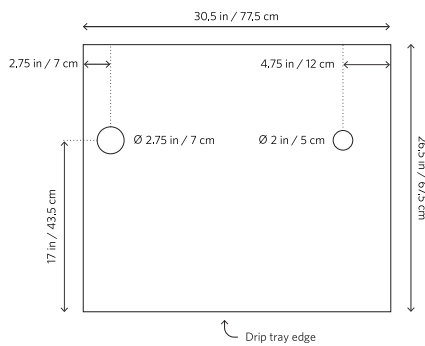
STEP 1: PREPARE SITE

Your installation site will need direct access to power, water, and drainage. Building regulations vary by region, so confirm local requirements prior to connecting your machine.

Using quality, treated water is essential to achieving the best possible results when preparing coffee and may also extend the life of your machine. Read the Water Treatment Advisory on pages 6-7 for information about avoiding and addressing water-related issues.

Your Slayer espresso machine weighs approximately 160 kg (350 lb.) when filled with water and needs to be installed on a structure that is capable of supporting its weight.

Use the following diagram to locate and drill holes in the counter for the water and drain lines. Note that electrical plugs vary in size and a larger hole may be required to accommodate the main power cord.





STEP 2: UNPACK EQUIPMENT

Your Slayer espresso machine will arrive in a lidded wooden crate, bolted to a pallet at the base. Unpack with the following steps.

PARTS AND TOOLS:

- Large flat head screwdriver or pry bar
- Two (2) Rubber feet (included)
- Steam handles (included)

PROCEDURE:

1. Use a flat head screw driver or pry bar to remove four (4) clips located along the lower edge of the crate.
2. Carefully lift the lid from the pallet.
3. Remove all banding and packing material from the machine.
4. Use a phillips-head screwdriver to loosen and remove the screws (approximately two [2] screws) from the base of the pump, then detach it from the pallet.
5. The machine is attached to the pallet with two (2) bolts that are screwed into two (2) of its four (4) legs, one on each side of the

machine. Use a socket wrench to loosen and remove the two (2) bolts from the underside of the pallet.

6. Attach the included rubber feet to the bottom of the two (2) legs that were bolted to the pallet.
7. Prepare surface by laying out one or more towels, which will rest under the machine's feet and allow for easy sliding into desired position.
8. Holding the machine by the lower part of the Xs, as shown, employ two (2) or more people to lift the machine up and onto the towels on the prepared surface.
9. Slide machine into desired position, then left legs, one or two at a time, to remove towel(s).
10. Attach the steam handles by threading into place.
11. Pull both steam actuators forward, into the "on" positions. Leave steam actuators in the "on" positions until "Step 8: Turn on Heating Elements".





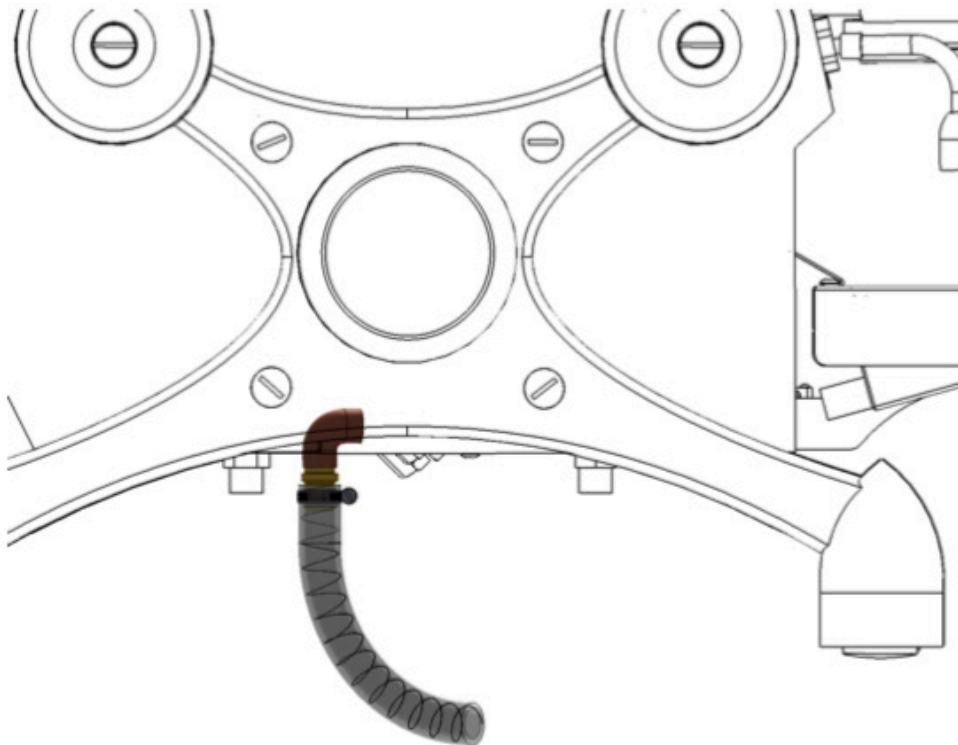
STEP 3: CONNECT DRAIN HOSE

PARTS AND TOOLS:

- Drain hose (included)
- Hose clamp (included)
- Flat-head screwdriver

PROCEDURE:

1. Use the hose clamp to fasten the drain hose to the drain outlet, as shown.
 - **The drain hose has an inside diameter of 5/8" (1.6cm).**
2. Prevent clogging by ensuring that the drain line always goes downwards.
 - **Leave steam actuators in the "on" positions for "Step 8: Turn on Heating Elements".**





STEP 4: CONNECT WATER LINE

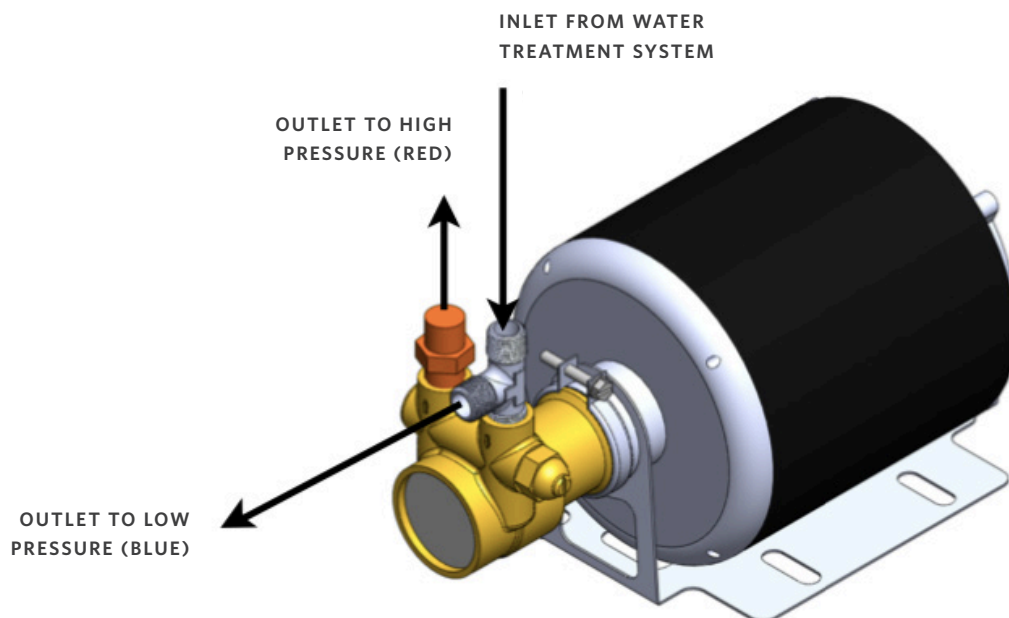
IMPORTANT: Before connecting a water treatment system to your espresso machine, rinse the system by running water through it for at least two (2) minutes. Failure to follow this step will result in equipment damage. Read the Water Treatment Requirements on pages 6-7 for information about avoiding and addressing water-related issues.

PARTS AND TOOLS:

- 40"x3/8" braided stainless steel hose
- Two (2) 60"x3/8" braided stainless steel hoses (with 90-degree fittings)
- Wrench

PROCEDURE:

1. Use the shorter, 40"x3/8" braided hose to connect the water treatment system outlet to the pump inlet.
2. Use one of the longer, 60"x3/8" hoses to connect the pump high pressure outlet (red) to the espresso machine high pressure inlet marked with a red band around the fitting (located at the bottom-rear of the machine).
 - The hose end with the 90-degree fitting should connect to the espresso machine.
3. Use another of the longer, 60"x3/8" braided hoses to connect the pump low pressure outlet (blue) to the espresso machine low pressure inlet marked with a blue band around the fitting (located near the drip tray).
 - The end with the 90-degree fitting should connect to the espresso machine.
 - Leave steam actuators in the "on" positions for "Step 8: Turn on Heating Elements".





STEP 5: CONNECT PUMP

Two (2) electrical cords extend from outside of your Slayer espresso machine. The thinner of these cords has a small, white quick-connect plug. Insert the quick connect plug into the matching plug unit on the pump motor.

STEP 6: CONNECT MACHINE TO POWER

- **IMPORTANT:** Before beginning any electrical work on your machine,
- ensure that both the power switch and heating element breaker are in the
- “off” position.

Your espresso machine will ship with the power configuration requested at the time of purchase. Only an electrician or approved technician should wire the power cord into an appropriately-rated plug end. Once the plug end is attached, insert the main power cord into an appropriately-rated and grounded receptacle.

STEP 7: FILL TANKS

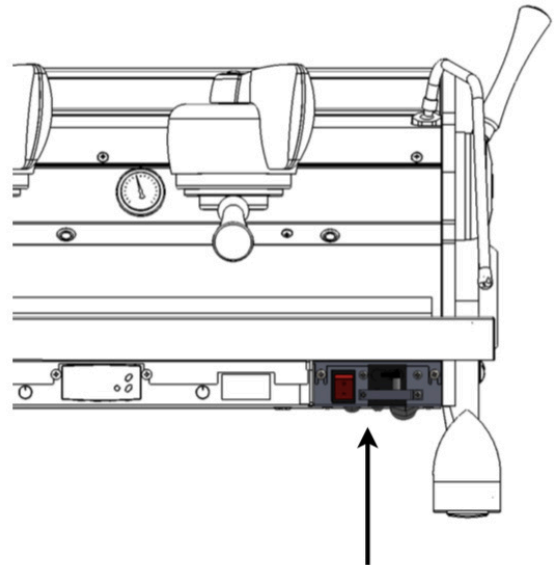
PROCEDURE

1. Ensure heating element breaker is in the “off” position.
2. Turn on the main water line and power switch; tanks will begin to fill. Filling is complete when the pump motor turns off and a “click” is heard.
3. When Slayer has filled completely, move the brew actuators left, into the “on” positions.
4. When water begins to run from the groupheads, return the brew actuator to the “off” position.
 - Leave steam actuators in the “on” positions for “Step 8: Turn on Heating Elements”.



STEP 8: TURN ON HEATING ELEMENTS

1. Per step 7, ensure that both steam actuators are pulled forward, into the "on" positions.
2. Move the heating element breaker to the "on" position by flipping it to the left.
3. The machine is heated when steam begins to flow from the steam wand; at this point, move the steam actuators into the "off" positions.
4. Lift to remove cup tray and check the inside of the machine for leaks or collected water.
5. Allow Slayer to fully heat before use.

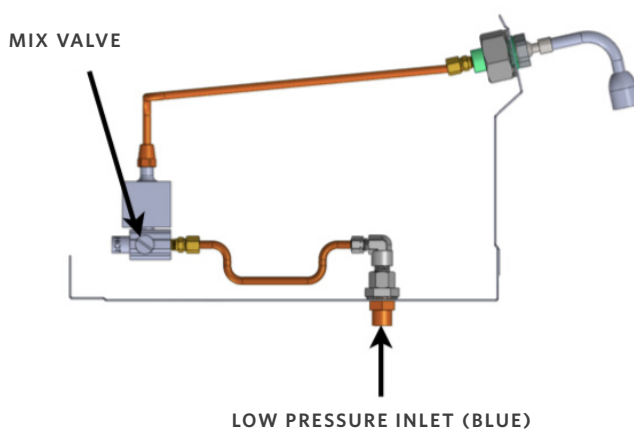


STEP 9: ADJUST HOT WATER TEMPERATURE

PARTS AND TOOLS:

- Flat-head screwdriver

1. Remove the cup tray.
2. Use a large, flathead screwdriver to remove the two top and one lower rear screws from the x-leg, then carefully lift to remove the left rear side panel.
 - Take caution to not scratch the side panel during removal.
3. Use the mix valve knob to regulate the amount of cold water that mixes with the hot water.
 - Turn counter-clockwise to increase the amount of cold water and decrease the water temperature.
 - Turn clockwise to decrease the amount of cold water and increase the water temperature.





FACTORY SETTINGS

BREW TANK TEMPERATURE:	93°C (200°F)
PRE-HEAT TANK TEMPERATURE:	85°C (185°F)
STEAM TANK TEMPERATURE:	118°C (245°F)
STEAM PRESSURE:	1.5 BAR
FLOW RATE:	40 GRAMS PER 30 SECONDS
PUMP PRESSURE:	9 BAR WITH DOSED PORTAFILTER

Installation Check-up



Warning: after installation, check to see if the machine is working properly

WATER CONNECTIONS

- No leaks from the connections or tubes

FUNCTIONING

- Boiler and operating pressures are normal.
- The pressure gauge is working properly.
- The expansion valves are working properly



Warning: once the machine has been installed and is ready for use, before allowing the worker to start using the machine, wash the internal components according to the instructions below:

GROUPS

- Install the portafilters in the groups (without coffee).
- Let each group dispense water for about a minute.

HOT WATER

- Continuously dispense hot water until at least 3 liters of water have been dispensed
- See the “Hot water dispensing” chapter in the User’s Manual.

STEAM

- Dispense steam from the nozzles for about a minute.



Espresso Basics

Coffee “beans” are the seeds from cherry-like fruits that grow on shrubs in equatorial regions. After picking and processing, the beans are roasted, ground, and dissolved in water to yield a coffee beverage.

Brewing espresso is a unique method of coffee extraction in which water is added to ground coffee under intense pressure. As a result, the beverage, when compared to filter coffee (e.g. pour-over, immersion), contains a higher concentration of dissolved coffee, feels heavier in the mouth, and asserts stronger flavor.

The espresso machine is the preferred equipment for preparing espresso. Therein, coffee is secured, water is heated, pressure is applied, filtration occurs, and the beverage is dispensed. The entire process takes less than one (1) minute.

Many variables affect espresso extraction and therefore require the attention of the barista. Consider the following generalizations and guidelines when preparing espresso.

COFFEE ORIGIN

Coffee plants are cultivated around the world in equatorial regions that have varying climates and growing conditions. Every location — country, locale, farm, and lot — produces coffee with distinct characteristics that contribute to discernible differences in beverage flavor. Slayer Espresso is well-suited for preparing coffee from any single origin, as well as blends of coffees from varying origins.

PLANT VARIETY

Like other fruits (e.g. apples, oranges), coffee beans may come from one of many varieties of the same plant. Common varieties include Typica, Bourbon, Heirloom, and Caturra, among others. Every variety produces coffee with distinct characteristics that contribute to discernible differences in beverage flavor.

PROCESSING METHOD

There are many unique processes by which coffee seeds may be separated from the fruit containing them. Every process produces coffee with distinct characteristics that contribute to discernible differences in beverage flavor. Note these examples:

- **“Washed” process:** increased acidity, enhanced flavor clarity, clean body
- **“Natural” process:** fruit-forward flavor, full body

- **“Pulped natural”, “semi-washed”, and “honey” processes:** borrowed characteristics from washed and natural processes

GREEN COFFEE FRESHNESS

After it has been picked and processed, green (i.e. un-roasted) coffee has a considerable shelf life. However, the potential quality of coffee beverages deteriorates with the age of the green coffee. For best results, buy roasted coffee from a trustworthy supplier that guarantees the freshness of its green coffee.

ROAST PROFILE

Roasting makes the dense, green coffee bean porous and soluble and is the first step in preparing coffee for extraction. Coffee may be roasted to varying degrees by a variety of technologies, each producing coffee with distinct characteristics that contribute to discernible differences in beverage flavor.

Generally, the flavor of espresso prepared from light-roasted coffee will more closely resemble the characteristics of its origin, variety, and processing method (e.g. “bright”, “fruity”, etc.). Conversely, the flavor of espresso prepared from dark-roasted coffee will more closely resemble the characteristics of caramel, dark chocolate and nutty flavors. In some instances the dark roasting process will take a coffee too far into the roast yielding over developed flavors. (e.g. “smoky”).

ROASTED COFFEE FRESHNESS

After roasting, coffee beans are increasingly vulnerable to deterioration. Preserve freshness by storing in a sealed container in a cool, dark area. Ideally, use a container that allows the outward flow of gas, which coffee releases as it ages, but prevents the inward flow of oxygen. Espresso is generally most flavorful when prepared with coffee that has “rested” for at least two (2) days after roasting but has not exceeded three (3) weeks. These guidelines are especially important for dark-roasted coffee, which deteriorates faster than light-roasted coffee.

GROUND PARTICLE SIZE

Preparing espresso requires finely-ground coffee and a professional grinder. When setting up your grinder, target a setting that achieves the recommended beverage yield with the recommended dose weight in the recommended brew time. Continue reading for recommendations



regarding these brewing parameters. Adjust grind as necessary, noting these rules:

Finer grind setting (smaller particles):

- Longer extraction time
- Enhanced body
- Reduced clarity

⋮ **Recommended when espresso tastes sour, feels thin, extracts quickly, or has no crema.**

Coarser grind setting (larger particles):

- Shorter extraction time
- Reduced body
- Enhanced clarity

⋮ **Recommended when espresso tastes bitter, feels muddy, or extracts slowly.**

DOSE WEIGHT

Dose weight refers to the amount of ground coffee used for a serving of espresso. When considered alongside the beverage yield, dose weight is part of the brew ratio, which correlates with the perceived strength of the espresso and influences the extraction process. Slayer recommends using a scale to measure 18—21 grams of ground coffee per espresso serving. Begin with 18 grams, then adjust dose weight as necessary, noting these rules:

Larger coffee dose (more weight):

- Increased flavor intensity
- Longer extraction time

⋮ **Recommended when espresso tastes sour, feels thin, extracts quickly, or has no crema.**

Smaller coffee dose (less weight):

- Decreased flavor intensity
- Shorter extraction time

⋮ **Recommended when espresso tastes bitter, feels muddy, or extracts slowly.**

⋮ **For larger doses, please contact Slayer regarding details on larger baskets for you how like to brew.**

BED DEPTH

Distribution and tamping ground coffee is essential to forming a puck through which water will evenly flow. Use logic when dosing and distributing to create an even pre-tamp bed. Instead of tamping to a specific pressure (e.g., 30 pounds), Slayer recommends tamping to a specific depth in order to achieve the adequate headspace between the coffee puck and the shower screen. To ensure consistent results, target a tamp depth that levels the top of the tamper piston with the top of the portafilter basket (approximately 1 centimeter).

WATER TEMPERATURE

At the factory, the brew tank temperature is set to 93°C (200°F). Coffee is best brewed with water heated to 92-95°C (195-205°F). If you do not know which temperature to set your machine at begin with the factory setting, then adjust the temperature as necessary, noting these rules:

Higher temperature:

- Increased extraction rate
- Enhanced acidity

⋮ **Recommended when espresso tastes sour.**

Lower temperature:

- Decreased extraction rate
- Reduced acidity

⋮ **Recommended when espresso tastes bitter.**

⋮ **To adjust the brew temperature, see instructions under Using Slayer > Adjust Brew Temperature on pg. 24.**

WATER PRESSURE

At the factory, the brew pump pressure is set to 9 bar. Generally, espresso is best brewed with water pressurized to 6—10 bar. More dense coffees (such as those grown at a higher elevation, processed with the “washed” method, and/or roasted light) may endure higher pressure, while less dense coffees (such as those grown at a lower elevation, processed with the “natural” method, and/or roasted medium-to-dark) prefer lower pressure.

⋮ **To adjust the brew pressure, see instruction under “Using Slayer > Adjust Brew Pressure” on pg. 34**



BEVERAGE YIELD

Beverage yield refers to the weight or volume of a serving of espresso. When considered alongside the dose weight, beverage yield is part of the recipe often referred to as the brew ratio, which correlates with the perceived strength of the espresso (sweetness, acidity, body) and influences the extraction process. No one knows your coffee better than your roaster and in some cases you are still the best maestro for conducting great cup experiences. As a baseline Slayer recommends using a scale or graduated shot glasses to measure 25–40 grams or 1.0–1.5 fluid ounces of espresso per serving. Begin with 35 grams or 1.25 fluid ounces, then adjust beverage yield as necessary, noting these rules:

Larger yield (more weight or volume):

- Decreased flavor intensity
- Longer extraction time
- **Recommended when espresso lacks clarity.**

Smaller yield (less weight or volume):

- Increased flavor intensity
- Longer extraction time
- **Recommended when espresso lacks body.**

BREW TIME

Brew time refers to the total duration of extraction. Begin with 25 seconds, then adjust brew time as necessary, noting these rules:

Longer brew time:

- Higher extraction yield
- **Recommended when espresso tastes sour.**

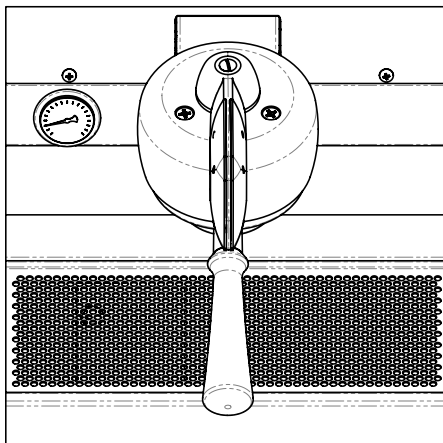
Shorter brew time:

- Lower extraction yield
- **Recommended when espresso tastes bitter.**

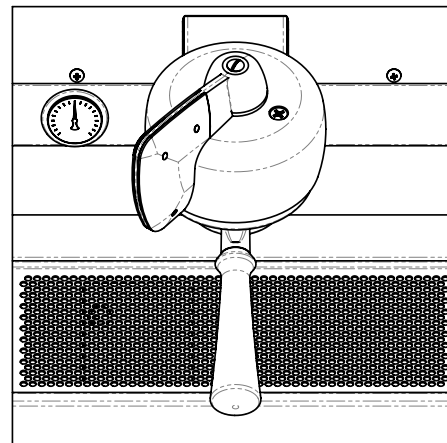


Preparing Espresso

Slayer's brew actuator allows for three positions: Off, Pre-Brew, and Full-Brew. The grouphead is in the Off position when the brew actuator is moved all the way right. The Pre-Brew setting is activated when the actuator is moved to the middle of the group. Full-Brew is achieved when the actuator is moved all the way left.



PRE-BREW POSITION



FULL-BREW POSITION

The following guidelines represent a good starting point when first using Slayer. Coffee is a complex food item that differs from variety to variety, farm to farm, and even seed to seed. Changes in brewing variables – including grind, dose, temperature, flow rate, time, etc. – affect all coffees uniquely.

STANDARD SHOT

The procedure for brewing a standard shot is similar to that for other espresso machines:

1. Remove the portafilter from the grouphead and wipe the basket with a clean, dry towel.
2. Set the grind to the same degree of coarseness as you would for another espresso machine.
3. Grind and dose 19-21 grams of coffee into the portafilter.
4. Tamp coffee to approximately 30 pounds of pressure, briefly flush group, then lock the portafilter into the grouphead.
5. Move the brew actuator directly to the "full brew" position.
6. Allow the espresso to brew until the preferred extraction has been achieved (when blonding occurs, when the desired beverage yield has dispensed, or when the desired brew time has elapsed), then move the actuator to the "off" position.
7. Remove the portafilter from the grouphead and knock out spent coffee. Wipe the portafilter with a clean towel to remove grounds and oil.
8. Briefly move the brew actuator to the "full brew" position to purge grounds and oil from the dispersion screen. Move the grouphead to the "off" position and return the portafilter.



“SLAYER SHOT”

When the espresso is too acidic and lacks balance it’s time for a properly brewed “Slayer Shot”. Due to the extended contact time you will first need to adjust the grind finer to create better restriction in the Full Brew phase of extraction. Begin by adjusting the grind finer, on most grinders that is 3—4 notches, then:

1. Remove the portafilter from the grouphead and wipe the basket with a clean, dry towel.
2. Grind and dose 18—19 grams of coffee into the portafilter.
3. Tamp to depth, ensuring a level brewing coffee bed without excessive pressure, briefly flush group, then lock the portafilter into the grouphead.
4. Move the brew actuator into the center of the grouphead to activate pre-brew.
5. Pre-brew times will vary based on the dose, grind, flow rate, brew temperature, and characteristics of the coffee. The Pre-Brew position allows you to slowly saturate the coffee bed utilizing the tuned flow rate of the needle valve until fully wet before introducing pressure in the Full Brew position. You will know the puck is fully saturated when the bottom of the basket base displays a uniform presence of crema seeping out of every tiny hole. This special Pre-Brew will take anywhere between 15—20 seconds. Watch the bottom of the portafilter basket in the shot mirror to verify the coffee puck is fully saturated.
6. When the basket bottom shows evidence of full saturation move the actuator Left to Full-brew. Pump pressure has now been fully introduced to the brew bed.
7. Allow the espresso to brew until the preferred extraction has been achieved, then move the actuator to the Off position.
8. Remove the portafilter from the grouphead and knock out spent coffee. Wipe the portafilter with a clean towel to remove grounds and oil.
9. Briefly move the brew actuator to the Full-Brew position to purge grounds and oil from the dispersion screen. Move the grouphead to the Off position and return the portafilter.

EXTENDED PRE-BREW: ENHANCING SWEETNESS

When espresso lacks sweetness, from the lack of balance, extending the Pre-Brew or Saturation phase can help to bring that flavor forward.

1. Follow “Slayer Shot” steps 1-5 above, but allow the espresso to continue extracting in the Pre-Brew position. Start with 2—3 grams, taste and increase that amount extracted in the Pre-Brew position to accentuate sweetness.
2. Move the brew actuator to the Full-Brew position, then resume “Slayer Shot” steps 7—9.

REDUCED FLOW: MUTING ACIDITY

Increased body and muting overextraction flavors can be achieved by moving back to the Pre-Brew position at the end of the extraction process:

1. Follow “Slayer Shot” steps 1—6.
2. When the machine dispenses approximately two-thirds of the desired volume, return the brew actuator to the middle position, then resume “Slayer Shot” steps 7—9.

“BUMPED” PRESSURE: INCREASING ACIDITY

If more acidity is desired, the Full-Brew stage can be briefly engaged before moving back to Pre-Brew:

1. Follow “Slayer Shot” steps 1—3.
2. Move the brew actuator to the Full-Brew position until the grouphead pressurizes (less than 1 second), then quickly return the actuator to the Pre-Brew position.
 - Engaging Full-Brew for longer than 1 second may cause the puck to choke, extending extraction and resulting in undesirable flavor.
3. Resume “Slayer Shot” steps 4—9, combining instructions for “Enhancing Sweetness” and “Reducing Acidity”, if desired.



STEAMING MILK



Scalding hazard! Use the appropriate insulating devices to move the water and steam nozzles.

Slayer produces powerful steam by combining high pressure with restricted steam tip holes. Various steam tip options (numbered 0–5) are available to allow the barista to customize their steaming experience and milk texture. Unless another size is requested at the time of purchase, your Single Group will ship with steam tip #1.

Steam milk with the following steps.

1. Fill a cold pitcher with the desired volume of fresh milk.
2. Immediately before steaming milk, aim the steam wand toward the drip tray or into a towel and pull the steam actuator forward to release steam and purge condensation. Then, turn off the steam wand.
3. Submerge the steam tip in milk and turn on the steam wand.
4. Immediately move the pitcher down to expose the steam tip to the surface of the milk, incorporating fine air bubbles.
5. When the milk reaches body temperature, submerge the steam tip again, then tilt the pitcher to form a gentle whirlpool.
6. When the pitcher feels hot, turn off the steam wand.
 - The final milk temperature should be 65–68°C (150–155°F).
7. Wipe the steam wand with a damp cloth, removing all milk residue, then briefly turn on the steam wand to purge milk from the wand.



CLEANING OF STEAM NOZZLES

At the conclusion of each steam dispensing phase:

- Using a clean sponge, wash with hot water removing any organic residue present. Rinse carefully.
- Clean the inside of the steam nozzle as follows: turn the nozzle towards the cup tray and carefully activate steam dispensing at least once.

DISPENSING HOT WATER



Scalding hazard! Use the appropriate insulating devices to move the water and steam nozzles.

The hot water spout is activated with a push button located above the spout. Push the button once to dispense water; push again to turn off water.

Hot water is drawn from the steam tank and mixed with incoming cold water. Frequent or heavy use of the hot water spout may result in reduced steam tank pressure and temperature, causing decreased steaming ability.



ADJUST FLOW RATES

Flow rate is controlled by a precision needle valve, which is located inside of the machine on top of the brew tank. Adjust the flow rate with the following steps.

PARTS AND TOOLS:

- Empty 8-ounce vessel
- Gram scale
- Timer

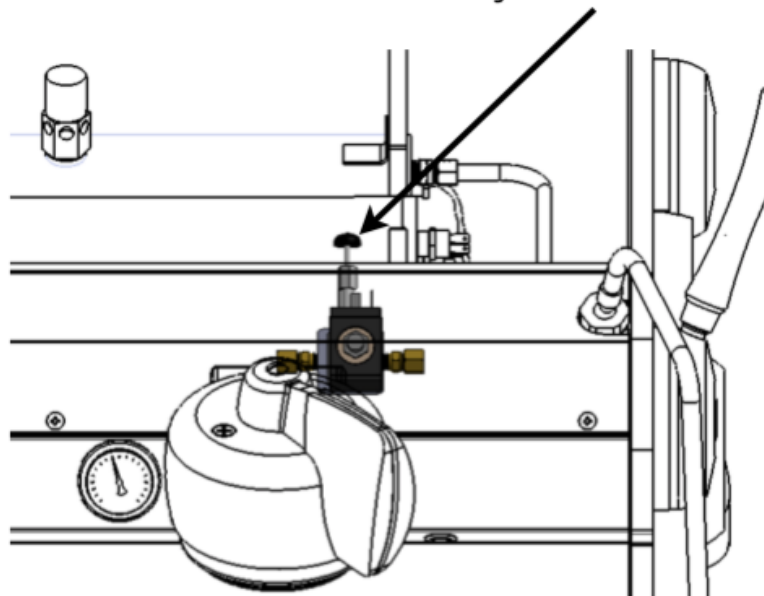
PROCEDURE:

1. Ensure that Slayer is fully heated.
2. Remove portafilters from all groupheads and set aside.
3. Begin with one grouphead: briefly move the brew actuator to the “pre-brew” position, then to the “full brew” position for a few seconds before returning the grouphead to the “off” position.
4. Beneath the same grouphead, place a container on a scale and tare the scale to zero.

5. Simultaneously move the brew actuator to the “pre-brew” position and start a timer.
6. When the timer reaches 30 seconds, remove the container and scale, then move the brew actuator to the “off” position.
7. Weigh the container again without taring the scale to determine how much water dispersed in the allotted time.
8. Use this weight to determine flow rate, which is expressed in these terms: x grams of water per 30 seconds.
 - Slayer recommends starting with a flow rate of 40-60 grams of water per 30 seconds. The actual flow rate may be within a range of +/- 2 grams of the desired flow rate.
 - To decrease the flow rate, turn the blue control knob on the needle valve clockwise.
 - To increase the flow rate, turn the blue control knob on the needle valve counter-clockwise.
9. Repeat all steps for each grouphead.

• **IMPORTANT:** Over-tightening the valve may break the needle inside. Only adjust the flow rate incrementally to avoid damage.

Needle Valve Adjustment Knob





ADJUST BREW TANK TEMPERATURE

At the Slayer studio, brew tanks are set to 93°C (200°F). Each grouphead has its own PID temperature controller, which can be manipulated independently. Adjust the brew tanks' temperatures with the following steps.

1. Begin with one grouphead: briefly press the corresponding PID controller's green "SEL" button, which will engage the red "SV" light.
 - The "C2", "AL1", and "AL2" indicators are not used on Slayer.
2. Use the up and down arrow buttons to select the desired temperature.
3. Press "SEL" again to return to normal operation, indicated by the red "SV" light turning off.
 - The new temperature will be achieved and stable within 10 minutes.
4. Repeat all steps for each grouphead.

• **NOTE:** Each of the brew tanks' PIDs has an "F" printed on its plastic exterior, which indicates temperature readings in degrees Fahrenheit. However, the actual temperature may read in either Fahrenheit or Celsius, depending on your request at the time of ordering.



ADJUST BREW PUMP PRESSURE

At the Slayer studio, the brew pump pressure is set at 9 bar. Actual brew pressure, as indicated by the pressure gauge on the face of your machine, will be influenced by incoming water pressure (line pressure) at your

location. Adjust the brew pump pressure with the following steps.

Under normal circumstances, this setting should not need to be adjusted. Contact technical support before adjusting the factory setting.



ADJUST STEAM TANK TEMPERATURE & PRESSURE

At the Slayer studio, steam tanks are set to 118°C (245°F). The temperature of the tank is directly related to the steam pressure: increasing the temperature will increase the pressure, while decreasing the temperature will decrease the pressure. The factory-set temperature of the steam tank produces a pressure of 1.5 bar. If the steam is more or less powerful than you prefer, first try using a different steam tip. We offer a wide range of steam tip sizes, refer to spare parts diagram for more information. If changing steam pressure is still desired, adjust with the following steps:



1. Briefly press the Love Controller's "SET" button and wait for the screen to begin flashing.
2. Press the "SET" button again to access the steam tank set temperature. A red LED will light under "out2".
 - Use the up and down arrow buttons to select the desired temperature, making only incremental adjustments.
3. Press the "SET" button again to confirm new temperature setting and return to original screen.
4. Pull a steam actuator forward to engage steam, then wait until the

Love Controller's "Out 2" red light turns on.

5. Return the steam actuator to the "off" position, then wait until the "Out 2" light turns off.
6. Check the steam pressure gauge inside Slayer to confirm new pressure setting.

• **NOTE:** The steam and pre-heat tanks' Love Controller has an "F" printed on its plastic exterior, which indicates temperature readings in degrees Fahrenheit. However, the actual temperature may read in either Fahrenheit or Celsius, depending on your request at the time of ordering.

USING AND ADJUSTING PRE-BREW TIMERS

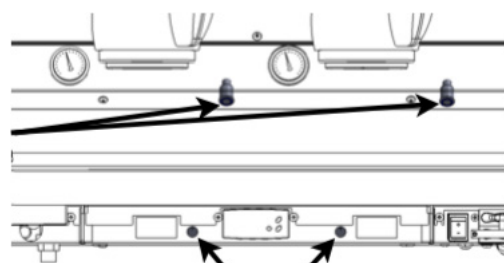
The pre-brew timers allows the barista to minimize brew actuator movement while still making use of the pre-brew function. The timer can be adjusted with a metal knob located beneath the drip tray.

Adjust the pre-brew timer with the following steps.

1. Locate the pre-brew timer push button(s) on the right side of the corresponding grouphead(s). When the button is in the "on" position, all extractions will be regulated by the timer.
2. With the pre-brew timer off, prepare a shot of espresso with your preferred method, using both pre-brew and full brew stages. Time the manual pre-brew stage.
3. Remove the portafilter and use the push button to activate the pre-brew timer functionality.
4. Move the brew actuator left, to the "full brew" position. Slayer will automatically initiate the pre-brew and full-brew stages. Time the automated pre-brew stage.

5. Locate the metal knob(s) underneath the drip tray. Turn as necessary, until the automated pre-brew time in step 4 is equal to the desired pre-brew time noted in step 2.

- Turn counter-clockwise to decrease the pre-brew time.
- Turn clockwise to increase the pre-brew time.



Time adjustment knobs



PRE-HEAT TANK TEMPERATURE

At the Slayer studio, brew tanks are set for optimal performance at to 85°C (185°F). We do not recommend changing the preheat temperature. Changes to the pre-heat temperature may negatively affect the machine's performance and pose a safety risk. Please contact your Slayer representative, reseller, or technician before changing this setting.

- **NOTE:** The steam and pre-heat tanks' Love Controller has an "F" printed
- on its plastic exterior, which indicates temperature readings in degrees
- Fahrenheit. However, the actual temperature may read in either Fahrenheit
- or Celsius, depending on your request at the time of ordering.



Cleaning & Preventative Maintenance

Keeping your machine clean and properly maintained is essential to ensuring espresso quality and equipment longevity. Espresso machines require both daily cleaning and ongoing periodic maintenance. The frequency with which these tasks should be completed will depend on the location and use of your espresso machine. The following recommendations assume heavy use in a commercial setting. Please observe the following preventative maintenance schedule.



DANGER OF BURNS: The areas marked with this sign become hot. Great care should be taken when in the vicinity of these areas.

WARNING: Hot surface

ACHTUNG: Heisse Oberfläche

ATTENTION: Surface chaude

ATTENZIONE: Superficie calda

Ensure that the coffee cups are completely drained before placing them on the cup-warmer tray.

No other objects shall be placed on the cup-warmer tray.

GENERAL

The manufacturer disclaims all liability for damages to items or persons due to improper use or due to the coffee machine being used for purposes other than its intended use.

Do not operate the coffee machine with wet hands or bare feet.

Ensure that the appliance is not used by children or persons who have not been instructed in its correct use.

DANGER OF BURNS

Do not place the hands or other parts of the body close to the coffee dispensing groups, or near to the steam and hot-water nozzles.

CUP-WARMER TRAY

Place only coffee cups, cups and glasses to be used in conjunction with the coffee machine on the cup-warmer tray.

MACHINE CLOSE-DOWN



When the machine is left unattended for a prolonged period (for example out of hours), carry out the following steps:

- Clean as indicated in the dedicated chapter;
- Remove the plug or turn off the main off-on switch;
- Close the water tap.

NOTE: for machines which can be programmed to switch on and off automatically, the power must be left on only if this function is active.

Non-compliance with these safety measures exonerates the manufacturer from all liability for malfunctions, damage to property and/or injury to persons and/or animals.

If the machine is not working properly, turn off the machine, turn off the main off-on switch, and call the service centre. If the power-supply cord is damaged, switch off the machine and request a replacement from the service center.

To ensure safety during operation, it is absolutely necessary to:

- Follow all the manufacturer's instructions;
- Have qualified and authorized technicians periodically check that all safety devices are intact and functioning properly (the first inspection within three years of purchase and every year after that).



⚠️ WARNING! Maintenance by unqualified individuals can jeopardize the safety and conformity of the machine. Only use qualified, authorized technicians for repairs.

⚠️ WARNING! Only use original spare parts guaranteed by the manufacturer. If original spare parts are not used, the manufacturer's warranty will no longer be valid.

⚠️ WARNING! After maintenance, perform the installation CHECK-UP as indicated in the specific section of the user's manual.

For California only

⚠️ WARNING! Consuming beverages that have been prepared in this machine will expose you to lead, a chemical known to the State of California to cause birth defects and other reproductive harm.

DAILY	30
EVERY 1–2 MONTHS	32
EVERY 6 MONTHS	33
EVERY 12–18 MONTHS	35
WOOD CARE	38

DAILY

BODY

PARTS AND TOOLS:

- Soft, clean towel
- Non-abrasive cleaner, e.g. window cleaner (optional)

PROCEDURE:

Use a soft, clean towel to wipe the surfaces of the machine. Do not use abrasive cleaners. Small amounts of window cleaner may be used on the stainless steel components. If your Slayer has wood panels, please refer to the "Wood Care" section.

GROUPHEADS

Cleaning and backflushing the groupheads prevents the build up of coffee oils. Backflush each group at least twice daily: once with water and once with an approved espresso machine cleaning powder.

To maximize efficiency and lengthen the life of wearable parts, we recommend keeping two (2) sets of dispersion screens and screws on hand. Alternate between sets for each end-of-day backflush (see below).

CLEANING GUIDELINES FOR TEFLON-COATED SCREENS

To clean screen, remove from grouphead, rinse with hot water, and wipe with a soft towel. Clean at least twice daily in a commercial setting (high volume) or once weekly in a home (low volume).

- Do not scrub Teflon-coated screen with any coarse material, such as a plastic brush.
- Do not soak Teflon-coated screen in detergent.
- Do not backflush grouphead with detergent while Teflon-coated screen is in place.
 - When backflushing with detergent, remove Teflon-coated screen and replace with a noncoated screen. Do not attempt to backflush grouphead without a screen in place.



GENERAL GROUP CLEANING

Recommended as part of every backflush cycle, or as needed

PARTS AND TOOLS:

- Cleaning brush or towel
- Flat-head screwdriver
- Portafilter with basket removed

PROCEDURE:

1. Begin with one grouphead: use a cleaning brush or towel to scrub the portafilter gasket and loosen oil and coffee grounds.
2. Remove the dispersion screw and screen with a flat-head screwdriver and rinse with clean water.

• **Ensure that the dispersion screw holes remain clear of coffee grounds, as they may otherwise damage internal parts of the grouphead.**

3. Use a clean, damp towel to wipe oil and grounds from the face and sides of the dispersion block, as well as the portafilter body.
4. Return the clean dispersion screw and screen to the grouphead.
5. Thoroughly rinse portafilter with hot water, insert basket, and lock in grouphead.

• **CAUTION: failure to reinstall the dispersion screw and screen before next use may cause the grouphead to clog with coffee particles. Do not attempt to brew espresso before the dispersion screw and screen have been correctly installed.**

6. Repeat all steps for each grouphead.

BACKFLUSHING WITH WATER ONLY

Recommended once daily

PARTS AND TOOLS:

- Cleaning brush or towel
- Flat-head screwdriver
- Blind portafilter insert
- Portafilter

PROCEDURE:

1. Complete "General Group Cleaning" steps 1-4 above.
2. Begin with one grouphead: replace portafilter basket with blind insert and lock in grouphead.
3. Move the brew actuator to the "full brew" position and activate the brew cycle for 10 seconds, then move the actuator back to the "off" position and wait 10 seconds. Repeat 5 times.
4. Repeat steps 1-3 for each grouphead.
5. Remove blind insert from portafilter and use a clean, damp towel to wipe oil and grounds from portafilter body.
6. Thoroughly rinse portafilter with hot water, insert basket, and lock in grouphead.

BACKFLUSHING WITH ESPRESSO MACHINE CLEANER

Recommended once daily for commercial settings; once weekly for homes

PARTS AND TOOLS:

- Replacement shower screens
- Replacement dispersion screws
- Cleaning brush or towel
- Flat-head screwdriver
- Approved espresso machine cleaner
- Blind portafilter insert
- Portafilter

PROCEDURE:

1. Complete "General Group Cleaning" steps 1-3 above for all groupheads.
2. Soak dispersion screws and screens overnight in a solution of hot water and approved espresso machine cleaning powder. Later, rinse thoroughly with clean water.

• **Only for non-coated screens; do not soak Teflon-coated screen in detergent. (See "Cleaning Guidelines for Teflon-Coated Dispersion Screens" above.)**



3. Install clean, second sets of dispersion screws and screens.

- **CAUTION: failure to reinstall the dispersion screw and screen before next use may cause the grouphead to clog. Do not attempt to brew espresso or backflush grouphead before the dispersion screw and screen have been correctly installed.**

4. Remove the baskets and portafilter springs from the portafilters and soak overnight with the dispersion screws and screens. Later, rinse thoroughly with clean water.

- **CAUTION: do not soak portafilters with wood handles attached. Exposure to water and/or chemicals may cause wood to crack or warp.**

5. Begin with one group: place the included blind insert in a portafilter, add approved espresso machine powder, and lock in grouphead.
6. Move the brew actuator to the "full brew" position and activate the brew cycle for 10 seconds, then move the actuator back to the "off" position and wait 10 seconds. Repeat 5 times.
7. Remove and rinse the portafilter.
8. Repeat steps 6-7 with water only, backflushing 5 times.
9. Repeat steps 5-8 for each group.
10. Remove blind insert from portafilter and use a clean, damp towel to wipe oil and grounds from portafilter body.
11. Thoroughly rinse portafilter with clean, hot water.
12. Later, after soaking, reattach portafilter spring and basket and lock portafilter in grouphead.

STEAM WANDS

After steaming milk, clean the exterior of the steam wand by wiping it thoroughly with a damp towel, then clear its interior by briefly allowing steam to flow.

If the steam wand tips clog, soak in hot water for several minutes, then briefly engage steam with wand submerged. For tough clogs, use an approved espresso machine steam wand cleaner.



EVERY 1-2 MONTHS

REPLACING SHOWER SCREEN

The dispersion screen may become bent or damaged and should be replaced periodically. Ideally, the mesh screen will sit firmly against the metal backing. If a gap forms, replace the dispersion screen.

PARTS AND TOOLS:

- Replacement shower screen
- Flat-head screwdriver

PROCEDURE:

1. Complete steps 1-3 of “General Group Cleaning” under “Grouphead”.
2. Discard old dispersion screen.
3. Install new screen and secure with the screw from step 1, taking care not to over-tighten. Tighten the screw with your fingers until it is secure, then rotate an additional 90 degrees (1/4 turn) with the screwdriver.

• **CAUTION: failure to reinstall the dispersion screw and screen before next use may cause the grouphead to clog with coffee particles. Do not attempt to brew espresso before the dispersion screw and screen have been correctly installed.**

• **For additional assistance with this procedure, refer to parts diagrams.**

REPLACING PORTAFILTER GASKET

The portafilter gasket forms a seal between the portafilter and the grouphead, preventing leaks. Over time, the portafilter gasket will become hard and lose its seal. If it becomes difficult to insert the portafilter or if dripping occurs around the portafilter body while brewing, replace the portafilter gasket.

PARTS AND TOOLS:

- Replacement 6mm portafilter gasket
- Flat-head screwdriver
- Pick or awl
- Cleaning brush or towel

PROCEDURE:

1. Complete steps 1-3 of “General Group Cleaning” under “Grouphead”.
2. Use a pick or awl to remove the old portafilter gasket, pressing the pick into the gasket and pulling downwards. If the gasket breaks into small pieces, continue picking until the entire gasket has been removed.
3. Insert new portafilter gasket in such a way that the flat side touches the grouphead and the round side is visible from the bottom. Gently press the gasket into place, then use a screwdriver, pick, or awl to secure it in place.
4. Return the clean dispersion screw and screen to the grouphead.

• **CAUTION: failure to reinstall the dispersion screw and screen before next use may cause the grouphead to clog with coffee particles. Do not attempt to brew espresso before the dispersion screw and screen have been correctly installed.**

• **For additional assistance with this procedure, refer to parts diagrams.**



EVERY 6 MONTHS

BEFORE MAINTENANCE PROCEDURE

Before starting the 6-month maintenance procedure, make the following preparations.

1. Turn off your machine by moving both the red and white switches to the "off" position.
2. Turn off water supply, either at the source or at the filtration system.
3. Disconnect machine from power source.
4. Lift to remove cup tray assembly.

DRAINING STEAM TANK

As steam is produced and exits the wand, minerals in the water are left behind build up inside the boiler. The steam tank needs to be drained periodically to remove these excess minerals. For assistance with this procedure, refer to parts diagrams.

PARTS AND TOOLS:

- 1/4" teflon or poly tubing
- Wrench

PROCEDURE:

1. Follow instructions in above video to remove the machine's left side panel.
2. Locate the shutoff valve on the lower left side of the steam boiler. Insert a 1/4" teflon tube into the quick-connect fitting located after the shut-off valve, pressing firmly until the tube clicks into place.

⋮ **If teflon tubing is not available, poly tubing may be used instead. If using poly tubing, see note under step 7 before beginning step 7.**

3. Aim the open end of the 1/4" teflon tube into a sink or bucket, then secure the tube or weigh it down with a heavy object.
4. Use a wrench to open the shut-off valve. The steam in the boiler will push all of the water in the tank through the teflon line and into the drain.

⋮ **If using poly tubing, do not open the valve fully; high pressure will damage tubing.**

5. Allow the tank to drain, then continue with steps 6-. Other maintenance tasks may be performed during this time.

6. Close the shut-off valve and carefully remove the tube from the quick-connect fitting.
7. Reinstall the side panel.
8. Reconnect power and turn on water supply.
9. Move brew and steam actuators to the "on" positions.
10. Engage red power switch to refill tanks.
11. When water begins to flow from groupheads, indicating that the tanks have filled, move brew actuators to the "off" positions. Keep steam actuators in the "on" position.
12. Engage white power switch to turn on heating elements.
13. When steam begins to exit wands, close steam actuators and allow machine to fully heat.

STEAM VALVE PIN O-RINGS

When the steam actuator is moved into the "on" position, it pushes a brass pin into the steam valve, which causes the valve to open and allows steam to flow. The two (2) o-rings on the steam valve pin should be replaced every six (6) months.

PARTS AND TOOLS:

- Steam Valve Pin O-Rings
- Flat-head screwdriver
- 3/4" socket wrench
- Pliers
- Pick or awl

PROCEDURE:

1. Remove top/side first?
2. While holding the corresponding nut on the machine's interior with a 3/4" socket wrench, use a flat-head screwdriver to loosen and remove the shoulder bolt.
3. Use pliers to remove the steam valve pin (#7).
4. Use a pick or awl to remove the o-rings (#8) from the steam valve pin and discard them. Put the new o-rings on the pin.
5. Rub Slayer lubricant on the pin and return the pin to the steam valve.

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SHOULDER BOLT SHIMS

The shoulder bolt's shims create a snug fit between the steam actuator hub and the side panel. Any time the steam actuator is removed, the shims should be replaced.

PARTS AND TOOLS:

- Shoulder Bolt Shim
- Screwdriver

PROCEDURE:

1. Remove the shims from the shoulder bolt and discard them. Place two (2) new shims on the shoulder bolt.
2. Rub Slayer lubricant inside the steam actuator hub.
3. Attach the steam actuator hub and shoulder bolt to the machine, tightening with screwdriver. Confirm fit by wiggling the hub. If the hub does not fit snugly, remove the shoulder bolt and add more shims.
4. Test again and repeat step 3 until hub and panel fit snugly.

BREW ACTUATOR

If the brew actuator becomes loose, tighten with the following steps.

PARTS AND TOOLS:

- Flat-head screwdriver
- Allen key

PROCEDURE:

1. Use a flat-head screwdriver to remove the lock screw from the top of the brew actuator.
2. Tighten the locking nut with an allen key. Test tightness by moving the actuator back and forth.
3. Adjust locking nut until desired tension is achieved.
4. Replace lock screw.



EVERY 12-18 MONTHS

Begin the 12-18 month preventative maintenance procedure by turning off the machine's white and red power switches, unplugging its power source, disconnecting the main water line, and draining the steam.

After completing the following preventative maintenance tasks, reconnect the machine to power and water, then turn on the red power switch only. Once the machine has completely filled with water, turn on the white heating element switch. Use machine only after it has heated fully.

EXPANSION VALVE

After 12-18 months, the seal in the expansion valve will wear out, causing water to leak from the valve. This will lead to temperature loss in the pre-heat tank and premature failure of the water filtration system. To diagnose a worn expansion valve, look for leaking water in the expansion valve drain tube and listen for beeping from the Love Controller, which indicates a cold pre-heat tank.

PARTS AND TOOLS:

- Expansion Valve
- Copper Gasket
- Wrench
- Teflon tape

PROCEDURE:

1. Partially drain pre-heat tank.
2. Disconnect silicone tube from the expansion valve.
3. Use a wrench to remove the expansion valve from the pre-heat tank and discard.
4. Apply teflon tape to the threads of the new expansion valve and slide a new copper gasket in place.
5. Install a new expansion valve, tightening with a wrench.
6. Reconnect the silicone tube.

ANTI-SUCTION VALVE

The anti-suction valve prevents a vacuum from forming in the steam tank

PARTS AND TOOLS:

- Anti-Vacuum Valve
- Copper Gasket
- Teflon tape

PROCEDURE

1. Drain the steam tank by engaging both steam actuators until steam ceases to flow from the wands.
2. Remove the anti-suction valve and discard it.
3. Apply teflon tape to the threads of a new anti-vacuum valve and slide a new copper gasket into place.
4. Install the new valve, tightening with a wrench.

STEAM VALVE SEALS

If steam leaks from either the tip or rotating base of the steam wand, replace the steam valve's rubber seals, o-rings and teflon bushing.

PARTS AND TOOLS:

- Steam Seat Gasket
- Teflon Bushing
- Teflon Busing O-Ring
- Valve Nut O-Ring
- Two (2) large wrenches
- Pick or awl
- Slayer lubricant
- Needle-nose pliers
- Teflon tape

PROCEDURE:

1. Drain the steam tank by engaging both steam actuators until steam



ceases to flow from the wands, then return both steam actuators to the “off” position.

2. Remove the tube that connects the steam tank to the steam valve.
3. Loosen and remove the steam wand tip.
4. Use a wrench to loosen the steam wand valve nut, then remove the nut and the steam wand. Watch for the teflon bushing that sits inside the ball joint, ensuring that it doesn't fall out.
5. Use a pick or awl to remove the o-ring from the inside of the steam wand valve nut.
6. Clean the inside of the nut and insert a new o-ring.
7. If the teflon bushing appears dark or flattened, discard it and install a new o-ring.
8. Reattach steam wand.
9. Remove steam actuator hub.
10. Use wrench to secure steam valve body; use second wrench to remove the steam valve's large, brass nut.
11. Remove spring from steam valve body and use needle nose pliers to remove the steam seat from the valve body.
12. Use a pick or awl to separate steam seat gasket from steam seat. Insert new steam seat gasket in seat.
13. Reinsert steam seat and spring in the steam valve.
14. Apply teflon tape to the threads of the brass nut.
15. Use wrench to secure steam valve body; use second wrench to tighten brass nut.
16. Reconnect the steam tubes to the valve and steam tank.
17. Replace the steam actuator hub.

WATER LEVEL PROBE

PARTS AND TOOLS:

- Wrench
- Teflon tape
- Replacement probe

PROCEDURE:

1. Drain steam tank.
2. Remove wire from probe and set aside.
3. Use a wrench to secure the larger of the two nuts at the base of the probe, then hold the nut in place and remove probe assembly.
4. Apply teflon tape to the threads of the nuts and add copper gasket.
5. Screw a new probe onto the tank.
6. Reconnect wire to probe.

• **For additional assistance with this procedure, refer to parts diagrams.**

REPLACING BREW ACTUATOR BEARING

PARTS & TOOLS

- Replacement brew actuator bearing
- Flat-head screwdriver
- 1/4" allen key
- Phillips-head screwdriver

PROCEDURE

1. Per previous steps under "Before Maintenance Procedures", ensure that all heating elements are off and the machine is disconnected from its power source.
2. Use a phillips-head screwdriver to loosen and remove the three (3) bolts from the brew cap; set aside.
3. Carefully, lift to remove brew cap.
 - **Several small parts sit underneath the brew cap: one (1) stainless finder washer, one (1) bayonet bolt, one (1) tongue assembly, one (1) disc spring, one (1) valve stem, and three (3) group cover spacers. Note their original positions and ensure that they are not moved.**
4. A plastic spacer is set in the underside the brew cap; remove and set aside.
5. Use a flat-head screwdriver to loosen and remove the lock screw from the top of the brew actuator; set aside.
6. Loosen and remove the locking nut with a 1/4" allen key; set aside.
 - **A spacer sits underneath the locking nut; ensure that it is not lost.**
7. Lift to remove brew actuator; set aside.
 - **A Teflon gasket sits underneath the brew actuator; remove and set aside.**
8. Flipping over the brew cap, use a blunt object (e.g. rubber mallet) to gently tap the actuator bearing (oilite bushing) until it has been removed; discard.
9. Install replacement brew actuator bearing.
10. Reattach brew actuator to brew cap with the following steps.
 - a. Place Teflon gasket (from step 6) on brew actuator bearing.
 - b. Place brew actuator on brew cap, pressing through Teflon gasket and brew actuator bearing.
 - c. Place spacer (from step 5) inside the top of the brew actuator.
 - d. Install locking nut (from step 5) and tighten with a 1/4" allen key.
 - e. Install lock screw (from step 4) and tighten with a flat-head screwdriver.
11. Place plastic spacer (from step 3) on top of stainless finder washer (from step 2).
12. Carefully, place brew cap on grouphead.
13. Reattach brew cap to grouphead with three (3) bolts, tightening with a phillips-head screwdrivers.
 - **For additional assistance, refer to parts diagrams.**



WOOD CARE

Keep all wood components dry and away from harsh elements. Use a soft, dry towel to wipe the wood clean. For tougher messes, use a slightly damp towel, then promptly dry the wood. Do not use chemicals or cleaning agents. Moisture and chemicals may cause the wood to warp or crack.

If the wood begins to look aged and dry, rub a small amount of mineral oil into the wood with a clean, soft towel. Allow the oil to sink into the wood for at least five minutes, then wipe the remaining oil off with a dry towel.

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*Make
Coffee
Better*