ASTRA™

QUICK START GUIDE

ASTRA SUPER AUTOMATIC
AUTOMATIC & TRADITIONAL
ESPRESSO MACHINES & STEAMERS

ASTRA MANUFACTURING Issued: 2022, Version 1 Naperville, IL, USA

INTRODUCTION TO YOUR ASTRA MACHINE

Congratulations on choosing Astra for your espresso needs!

Artfully engineered by an aerospace engineer using simple modular designs, Astra delivers highly reliable, affordable machines that have been produced in the United States since 1993. Designed for excellence, Astra products are remarkably durable and exceptional at delivering uncompromising espresso time after time.

With unmatched performance and top-of-the-line quality, Astra machines are built with quality steel and metal parts and aerospace-grade hosing and wiring components. Each machine is built to easily install, operate, and maintain. Handcrafted in the USA with US-standard parts, Astra machines are locally constructed with world class standards. We are confident that you will love your Astra machine and its high-quality espresso for years to come.

If you need any help or have any questions, please call Astra for assistance.

Telephone: 818 340 1800
Toll Free: 877 340 1800

techsupport@astramfr.com
www.astramfr.com

For the full manual, including additional directions, machine diagrams, recipes, and more, visit:

www.astramfr.com/manual

BEFORE YOU BREW...

CAUTION: there is risk of burns from steam, hot liquids, and hot equipment components. Always use caution when operating your Astra espresso machine or steamer. Ensure the equipment is turned off before installation or maintenance.

ASTRA equipment must be installed in accordance with all applicable Federal, State and/or local electrical and plumbing codes.

Pre-operational Safety

The following safety checks should be carried out when preparing to set up and use your Astra espresso machine.

- it is recommended for equipment operators to read the full operation manual before use
- equipment should be checked for any possible issues or damages before set-up
- the equipment should not be altered, amended or modified in any way

Operational Safety

Espresso machines hold heat for a period of time after use - beware of latent heat. Do not touch hot surfaces, operators should use the handles and knobs only when in use. Always use caution when powering up/down your machine. Never put fingers or foreign objects into the grinder without first unplugging the machine.

To protect against fire, electric shock and personal injury do not immerse cord, plug or entire espresso machine in water or other liquid. Do not operate any machine with a damaged cord or plug, after the machine malfunctions, or has been damaged in any manner.

Additional set-up & operational instructions for your specific machine can be found within this guide; please read and follow the instruction for proper operation.

⚠ WARNING:

Espresso machines and steamers use compression and pressure to heat water to a boiling point. They also utilize steam to heat milk under pressure. Proper caution and instruction should be observed.

QUICK START GUIDE

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WATER QUALITY

Do NOT use pure distilled water and do NOT overfill the water container.

Distilled or reverse-osmosis water can be corrosive if it is not treated with minerals post-process. It is highly recommended that plumbed machines be used in conjunction with a water softener in order to prolong the life of the individual components of the machine. The water treatment system must be periodically serviced (regenerated or replaced) based on the manufacturer recommendation. Find Astra-recommended water softener at www.astramfr.com.

WATER SET-UP

PLUMBED MACHINES

Plumbed machines are provided with a 3/8" compression fitting. The user must provide a 3/8" water line. The machine operates best when the water supply is at least 20 PSI. A water pressure regulator is suggested if water pressure exceeds 50 PSI.

POUROVER MACHINES

Pourover machines are provided with a water tank. Fill the tank before initial operation. The water reservoir cover is located on top of the machine. Remove the lid and fill with water. Do not completely tighten the cap or the water will not be able to drain out of the tank due to negative suction. Water can be added at any point of the operation. An alarm will sound if the water falls too low. Extended operation with an empty water container can cause component damage inside the machine and the machine will fail to operate.

POWER

All Astra machines must be connected according to the local and national electrical and plumbing codes. For a 110-volt machine, a dedicated circuit with ground is required. A 220-volt machine must be connected to a single-phase power (2 hot and ground) and the equipment must be grounded.

Large boiler machines (7.0 liter) require a 30 amp breaker. Smaller boiler machines (4.5 liter) require a 20 amp breaker. Electrical plugs are not provided with the pigtail and must be matched with the receptacle at the site (unless specified before shipment).

All ASTRA equipment must be installed in accordance with all applicable Federal, State and/or local electrical and plumbing codes.

SECTION 2

SUPER AUTOMATIC MACHINES

ASTRA SUPER MEGA I
ASTRA SUPER MEGA II
ASTRA 2000

INITIAL SET-UP

The following is the factory recommended procedure for the initial set-up of the ASTRA machine.

REFRIGERATOR

The compressor refrigerator is similar to household refrigerators. The temperature for the refrigerator is factory set at 38 degrees Fahrenheit.

It is not recommended to leave any food or drink in the refrigerator overnight. This unit is designated solely for keeping milk cold during operation.

Please note that all ASTRA equipment must be installed in accordance with all applicable Federal, State and/or local electrical and plumbing codes.

GRINDERS

The grinder has been pre-set by the factory for proper grinding, it is not recommended to adjust these settings. ***Never tighten the grinder with beans present in the chamber.**

1. Install the hoppers for the regular and decaffeinated beans. The hopper for the regular beans is the larger hopper and must be installed closest to the front of the machine.

2. Fill each hopper with the respective whole espresso beans. Never put ground coffee into the hoppers. Use of ground coffee will damage the grinder.

3. Ensure that the gates on the bottom of the hoppers are open. The gates can be opened by pulling out the lever at the bottom of the hoppers.

⚠ **WARNING:** Never put fingers or foreign objects into the grinder without first unplugging the machine.

Full grinder instructions can be found in the manual, www.astramfr.com/manual

FIRST TIME ACTIVATING THE MACHINE

1. Open the front of the machine and pull the “Door Safety Switch” out slightly.

2. Turn the “On/Off” switch to the On position. At this time the machine will turn on and the pump will start filling the boiler. Once the water level inside the boiler reaches proper level, both the green and amber lights will become lit. Once this occurs, the boiler will begin heating and the machine will be ready to program in less than 15 minutes.

3. To release any trapped air in the machine, press and hold the “Extra Froth” button located on the touch pad display for 10 seconds.

4. Press the “Espresso” button on the touch pad display a few times to bring the machine into equilibrium.

5. To initialize the automatic foamer, simultaneously press and hold the “Extra Froth” button while turning the foamer air adjustment screw counterclockwise. Once the foamer begins to splatter milk, turn the screw clockwise until the foamer begins producing smooth foam.

PROGRAMMING

All ASTRA Super Automatic machines allow the user to alter the factory set programming, allowing the user to self select the perfect espresso drink. The machines are pre-set by the factory to create a 2-ounce espresso drink and a 8-ounce small or 12-ounce large cappuccino/latte drink. The user may change these settings as follows:

To enter the programming mode, open the door and pull out the white switch. Next, press and hold the small, black programming switch located next to the main power switch for 5 seconds. Once pressed, the LCD will display “PASSWORD” - press button Number 1/ Small Espresso on the push pad four times until the display takes you to the main menu.

The ASTRA machine allows the user to alter five categories of programming as set forth in Table 1 below. Once the desired section is reached, press the “Enter” button to get into the submenu (see additional directions below). Changes to the submenu can be made by pressing the “Left” or “Right” buttons. To record a desired programming change, press the “Enter” button. If at any time you wish to reset without recording any changes or return to the previous menu, press the “Stop/Reset” button.

PROGRAM SELECTION SUBMENU

Each ASTRA machine allows its user to alter the programming of each key on the touch pad to provide the desired drink.

Table 1 | Main Screen	
LCD Display	**Parameter Determination**
Programming	Setting portions for each button (Table 2)
Set Points	Temperature controls for boiler and group (Table 4)
Management	Usage History (Table 5)
Technical Settings	Pre-Infusion, Date & Time, Maintenance (Table 6)
Display Settings	Language, Brightness, F°/C° (Table 7)
Energy Saving	Resource consumption controls (Table 8)
Alarm	Alarms history & settings (Table 9)

Table 2 | Programming Submenu	
LCD Display	**Parameter Determination**
Portion Programming	Choose portion for each button (Table 3)
Steam Programming	Control Temperature for Steam Wand (A2000 Only)
Factory Portion Settings	Factory default portions one regular button
Decaf Factory Settings	Factory default portions one decaf button
Factory Portion Settings All	Factory default all portion settings

Each drink selection has up to seven parameters that can be altered by the user to match the user's drink preferences. The seven parameters are set forth in Table 3. The drink parameters can be changed by pressing the "Left/Right" buttons to navigate through the seven parameters.

At each submenu, the user can change the preset parameter by pressing "Enter" for Yes or No, respectively. Use "Left/Right" to toggle the setting. To record a change, press the "Program" button on the touch pad. To exit, press the "On/Off Reset" button.

Table 3 | Portion Programming Submenu	
LCD Display	**Parameter Determination**
Espresso	Dispense espresso (Y/N)
Milk	Dispense milk (Y/N) (Super Mega Only)
Americano	Add hot water to espresso (Y/N)
Double	Produce 2 shots consecutively (Y/N)
Espresso First	Dispense espresso before milk & water (Y/N)
Reg. Grinder	Grinding time for caffeinated grinder (# Seconds)
Decaf. Grinder	Grinding time for decaffeinated grinder (# Seconds)
(For extraction & portion instructions, refer to pg 11)	

Table 4 | Set Point Submenu	
LCD Display	**Parameter Determination**
Steam Boiler Set Point	Choose PSI in Boiler
Group Set Point	Choose temperature at Brew Chamber

Table 5 | Management Submenu	
LCD Display	**Parameter Determination**
Management	See total count of drinks served

Table 6 | Technical Settings Submenu	
LCD Display	**Parameter Determination**
Information	Software version and internal temp
Settings	Piston cleaning and post extraction time
Pre-Infusion	Pre-Infusion on-off, infusion times
Date and Time	Set current date and time
Update Software	Update latest software (technicians only)
Maintenance	Set schedule for regular maintenance reminder
Export Import Configuration	Export/Import portion settings across machines

Table 7 | Display Settings Submenu	
LCD Display	**Parameter Determination**
Language	Choose English, Spanish, French, or Italian
Display Brightness	Brightness level during operation
Display Timeout	Time until display dims after button is pressed
Time Enable	Show time count of each brew function On/Off
F°/C°	Switch between Fahrenheit and Celsius

Table 8 | Energy Saving Submenu	
LCD Display	**Parameter Determination**
Weekly Programming	Schedule On/Off times for each day
Economy Operation	Heating element waits longer between heat cycles (may effect extraction quality)

Table 9 | Alarms Submenu	
LCD Display	**Parameter Determination**
Alarms History	See log of error messages
Automatic Group Cleaning	Schedule Hrs/Mins between full clean cycles

SELECTED DRINK EXTRACTION ADJUSTMENT

1. To enter the programming mode, follow the instructions on pg. 8

2. Select “Portion Programming”. The display will read “Push Drink Key”.

3. Select the desired drink to be programmed. Press the button once more and the grinder will automatically start grinding beans based on the grinder settings in the Programming Submenu (see Table 3). The machine will then begin to extract the desired drink. Press “Enter” when desired portion is achieved.

4. **(Super Mega only)** For drinks that require more than espresso (ex. latte), the machine will dispense milk and/or hot water. Select the desired amount of foamed milk or hot water and press the “Enter” button when each ingredient has reached the desired portion.

5. Pressing the “Enter” button a second time will cause the machine to record and save the settings for all portions of the drink.

6. Once the programming is complete, press the “On/Off Reset” button twice to exit the programming mode.

EMPTYING & RESETTING THE WASTE BIN

1. The machine is programmed to let you know that the waste bin is full after 40 drinks.

2. If you get this warning, pull out the waste bin and empty it. This is a good opportunity to check other supplies like milk.

3. To reset the message, press reset on the touchpad or you can either toggle the red On/Off switch for several seconds or open the front door for several seconds and close it.

To permanently disable the waste bin message, navigate to “Information” inside the programming menu (see page 10). Once inside “Information” hold the “Clean” button for 5 seconds. Navigate down to “Waste Drawer Cap.” And decrease the value down to zero; this will disable the message.

STEAMING WITH THE ASTRA 2000

SETTING THE DESIRED STEAM TEMPERATURE

Follow the instructions in “PROGRAM SELECTION SUBMENU” (PG 8) to set the desired steam temperature in the steam programming submenu.

OPERATING THE STEAM WAND

1. Toggling the steam modes: Press the “Auto/Man” button to switch between the automatic and manual steam modes. The display will indicate your current mode on the top left of the screen. Either the “A” or “M” will be highlighted.

2. Using the steaming options:

Manual – Direct the steam wand towards the drain tray. After toggling to Manual mode, press “Steam” and let the steam blow out for a few seconds. Press “Steam” again to cease steaming. Place a desired amount of milk under the steam wand and resume steaming. Once the milk has reached the proper temperature, press “Steam” to stop. Remove the steam wand from the milk. With steam wand pointed towards the drain tray, press the “Steam” button for a few seconds. This will clear the steam wand. Use a damp cloth to wipe down the steam wand.

Automatic – After toggling to Auto mode, press “Steam” and let the steam blow out for a few seconds. Press “Steam” again to cease steaming. Place a desired amount of milk under the steam wand and resume steaming .Once the milk has reached the programmed temperature, the machine will automatically stop. Remove the steam wand from the milk. With steam wand pointed towards the drain tray, press the “Steam” button for a few seconds. This will clear the steam wand. Use a damp cloth to wipe down the steam wand.

*Purging the steam wand after use is a great practice to ensure that your steamer stays clean. Make sure the steam wand is always pointed away from the user during operation.

CLEANING AND MAINTENANCE

DAILY CLEANING OF SUPER MEGA MILK LINES

The following procedure should be followed daily to ensure proper cleaning and functioning of your ASTRA machine:

1. Remove the milk from the refrigerated section and store it properly.

2. Mix 1 oz. (30 ml) of ASTRA Cleaner with 16 oz. (500 ml) of cold water in a steel pitcher or container.

3. Place solution in refrigerator section of machine and insert suction tube into container. Place a second container beneath the foamer to capture the solution.

4. Press the “Extra Froth” button and hold it until the entire solution has been sucked up by the machine. Remove the capture container from below the spout and set aside for later. This will be used to soak the foamer.

5. Repeat above process using only cold water in pitcher/container to rinse all components thoroughly.

DAILY CLEANING OF FOAMER

For best function, foamer cleaning is also recommended daily. Clean as follows:

1. Allow the machine time to cool and open the front door.

2. Turn the black knob on top of the foamer counterclockwise until it disconnects from the assembly.

3. Remove the foamer.

4. Disassemble foamer by loosening each threaded part. No tools are necessary to disassemble the foamer.

5. Soak the parts in the captured foamer detergent. All parts should be fully submerged and soak in the solution for at least 10 minutes to ensure proper sanitation. If you notice any buildup, remove and use the soft bristle brushes provided with the machine to clean all internal areas of the parts. Rinse thoroughly with clean warm water.

6. Dry and reassemble foamer parts. Attach foamer and close the front door.

7. Finish with daily cleaning steps.

RECOMMENDED YEARLY MAINTENANCE

To ensure optimal functioning of the machine, Astra recommends the following to be completed each year:

1. Each ASTRA machine has an upper and lower piston “O” ring. The upper “O” rings can come in 3 different colors, red, black or gray. Replace the upper (S10081) and lower (S10110) piston “O” rings.

2. Replace the quick disconnects (1 each) on the piston and the group electrovalve. (S10150)

3. Replace the Teflon tube on top of the piston. (S10018)

4. Replace the sweeper. (S10083)

5. Lubricate the piston and sweeper guide rail with food grade machine oil.

6. Run the clean cycle to ensure that there is no blockage.

7. Replace the grinding burrs and adjust properly (S10082).

8. Replace group electrovalve. (A10111 if 220V machine or A10110 if 110V)

9. Make sure that the water softener has been regenerated and there is no sign of calcium buildup in the machine.

10. Ensure that the group heating element is working properly. (S10089-C if 220V or S10089-D if 110V). The chamber must be very hot, test the outside with a laser thermometer. If the temperature is under 140 degrees the cartridge heater must be replaced.

11. Inspect the boiler heating element gasket (A10189) for any leaks.

For Super Mega (model with built-in fridge and milk foamer):

12. Replace the steam (S10361-L) and milk valves (S10361), along with silicone tubing (S10019).

13. Clean/replace the automatic foamer (S10030). Visually check the wiring and all other components to ensure the safety of the machine.

***For any additional information, please call Astra Manufacturing at 877-340-1800**

For the full manual, including additional directions, machine diagrams, recipes, and more, visit:

www.astramfr.com/manual

SECTION 3

SEMI AUTOMATIC & AUTOMATIC MACHINES

GOURMET AUTOMATIC GA021, GOURMET SEMI-AUTOMATIC GS022, MEGA I AUTOMATIC M1011, MEGA I SEMI-AUTOMATIC M1S016, MEGA II COMPACT AUTOMATIC M2C014, MEGA II AUTOMATIC M2012, MEGA II SEMI-AUTOMATIC M2S017, MEGA II COMPACT SEMI-AUTOMATIC M2CS019, MEGA III AUTOMATIC M3013, MEGA III SEMI-AUTOMATIC M3S018

FIRST TIME OPERATION

PRIME THE MACHINE

This process is important to follow upon first use or any time the boiler has been completely drained, such as during repair or cleaning.

Open any steam valve and leave it open by turning the knob counterclockwise. If your model has no knob on the front panel. Place the switch to manual position and turn on the machine. The pump will start to push the water into the boiler. If both indicator lights do not light shortly after the pump stops, this means that the water has not yet reached the proper level. Leave on for about 1 minute. Toggle 'Off' for 15 seconds. During very first use, you may have to do this 3-4 times as the pump continues to fill the boiler. When both indicator lights come on and stay on; the machine is in heating mode.

Ensure that the steam valve stays open. Once the steam begins to disperse from the steam wand, close the valve. You can do this by turning the knob clockwise or turning the switch back to "Automatic" if yours has no knob. The warm-up process can take 10 to 20 minutes. When the "Boiler Pressure" arrow on the gauge is between 15 and 17 PSI, the machine is ready to be used. The amber light will go on and off throughout operation as the heating element cycles to maintain the internal temperature.

SEMI-AUTOMATIC OPERATION

Astra machines come with self-tamping group heads, it is NOT necessary to tamp the portafilter. Once coffee is ground and leveled in the portafilter, simply insert into group head. To put the portafilter on the group head, hold the handle level at 7 o'clock and lift it up into the group head. Make sure the portafilter wings fit into the slots and turn the handle to the right to create a tight seal.

CAUTION: Make sure that both of the portafilter wings are securely aligned and that the portafilter has created a tight seal with the group head gasket. If a tight seal is not created, a potentially dangerous situation exists as hot water under high pressure could escape from the group head causing burn injuries. NEVER remove a portafilter from the group head while it is under pressure and brewing. Push the Brew/Stop button to stop brewing or wait until the brew cycle stops.

Place an espresso cup under the portafilter. Push the brew On/Off switch to the "On" position. Espresso will begin to be extracted and once the cup is filled to the desired level, press the same switch to the "Off" position.

While the machine is extracting espresso, the arrow on the left side of the gauge will read approximately 135 PSI. On the front panel there are two lights: green and amber. The green light indicates that the machine is "On" while the amber light indicates when the heating element is operating. The amber light will go "On/ Off" while the machine is "On" regardless of whether it is in use or not.

AUTOMATIC OPERATION

Astra machines come with self-tamping group heads, it is NOT necessary to tamp the portafilter. Once coffee is ground and leveled in the portafilter, simply insert into group head. To put the portafilter on the group head, hold the handle level at 7 o'clock and lift it up into the group head. Make sure the portafilter wings fit into the slots and turn the handle to the right to create a tight seal.

CAUTION: Make sure that both of the portafilter wings are securely aligned and that the portafilter has created a tight seal with the group head gasket. If a tight seal is not created, a potentially dangerous situation exists as hot water under pressure could escape from the group head causing burn injuries. NEVER remove a portafilter from the group head while it is under pressure and brewing. Push the Brew/Stop button to stop brewing or wait until the brew cycle stops.

Programming the Shot Duration & Extraction

1. Press and hold the Start/Stop button for 5 seconds. All the lights will start flashing, indicating that you are in program mode.

2. Load the portafilter with coffee and lock it to the machine. Press the key you would like to program. The machine will start to dispense. Once you have enough extraction, press "Start/Stop" button. The machine will stop and the specific button has now been programmed.

3. Repeat step 2 for all other buttons that you wish to program.

4. Press "Start/Stop" button to exit the program mode.

5. For a multi-group machine, if you wish to copy the stored program from one touchpad to the other touchpad, follow the steps below:

    A. Press and hold the "Brew/Stop" button on the touchpad you like to program for 10 seconds. All the lights will start to flash.

    B. Press the "Brew/Stop" button again, all of the lights will go out indicating that the program has been copied.

STEAM WAND OPERATION

SEMI-AUTOMATIC

USING THE SEMI-AUTOMATIC STEAM FUNCTION
(SEMI-AUTOMATIC STEAM WANDS ARE STANDARD FOR TRADITIONAL MACHINES)

- Move the wand down toward the tray.
- Turn the control knob counterclockwise and let the steam blow out for a few seconds
- Turn the control knob clockwise to cease steam.
- Insert the steam wand into the desired amount of milk.
- Turn knob counterclockwise to open the valve and begin using.
- Once the milk has reached the proper temperature, turn knob clockwise to cease steaming.
- Remove the steam wand from the milk.
- Open valve again for a few seconds; this will clear the milk inside of the steam wand. Use damp cloth to wipe down the steam wand.
- With the steam wand facing toward the drain tray, turn valve to the right until it stops to turn the steam wand off.

⚠ CAUTION:
Steamer is hot!

AUTOMATIC

USING THE AUTOMATIC STEAM FUNCTION

- Face the steam wand toward the drain tray.
- Move the switch located underneath the display to the “Manual” position to displace condensation.
- Let the steam blow out for a few seconds.
- Move the switch to the “automatic” position, this will turn the steam wand off.
- Insert the steam wand into the desired amount of milk.
- Press “Start” and begin using.
- Once the milk has reached the proper temperature, the steam wand will automatically stop.
- To stop the automatic steaming at any time, press the “Stop” button.
- Remove the steam wand from the milk.
- With the steam wand facing towards the drain tray, press the “Manual” button and hold for a few seconds; this will clear the milk inside of the steam wand. Use damp cloth to wipe down steam wand.
- Move the switch to the “Automatic” position to turn the steam wand off.

USING THE MANUAL STEAM FUNCTION WITH AN AUTOMATIC WAND

- Face the steam wand toward the drain tray.
- Move the switch located underneath the display to the “Manual” position.
- Let the steam blow out for a few seconds.
- Move the switch to the “Automatic” position; this will turn the steam wand off.
- Place a desired amount of milk under the steam wand.
- Move the switch to the “Manual” position.
- Once the milk has reached the proper temperature, move the switch to the “Automatic” position.
- Remove the steam wand from the milk and face it towards the drain tray.
- Press the “Manual” button for a few seconds, this will clear the steam wand. Use a damp cloth to wipe down the steam wand.
- Move the switch to the “Automatic” position to turn the steam wand off.

PROGRAMMING THE AUTOMATIC STEAM WAND

When boiler pressure on the gauge is between 15 and 20 PSI, the machine is ready to be put into program mode. This procedure is used to program the desired temperature for automatic steam wands.

Your machine comes pre-programmed with the factory-suggested setting. This is 165 degrees Fahrenheit. Ensure that the machine is ON and LED displays the current temperature. Each steam wand can be programmed and operated INDEPENDENTLY as follows:

1. Setting the Desired Temperature
(The goal temperature for the beverage)
   - Press the “Set” button on the display.
   - Display will read “Set.”
   - Press “Set” button again.
   - Display will read “165°F”.
   - If you would like to change this pre-set temperature, press the up arrow to raise the temperature. Press the down arrow to lower the temperature.
   - Once you have selected the desired temperature, press the “Set” button.
   - The display will show the sensor’s current temperature.

2. Setting the Accuracy Tolerances **(Not Recommended)**
(How close you want the set temperature to be when steaming ceases.
ex. Tolerances ±3°F)

- Press and hold the “Set” button.
- Display will read “Cor”
- Press “Set” button again.
- Adjust the temperature between 0-20 degrees Fahrenheit using the up or down arrows (default is set of 0 degrees Fahrenheit).
- Once you have selected the desired temperature, press the “Set” button.

3. Setting the Differential Temperature **(Not Recommended)**
(Adjustment for inconsistencies based on environmental factors)

- Press and hold the “Set” button.
- Display will read “Dlf”
- Press “Set” button again.
- Adjust the temperature between 2-40 degrees Fahrenheit using the up or down arrows.
- Once you have selected the desired temperature, press the “Set” button.
- The display will read “St.2”
- Press “Set” button again.
- Display will show the selected temperature from Step 1.
- Press “Set” button to record the change.

4. Setting the Upper Limit Parameters **(Not Recommended)**
(Boiler internal highest temperature)

- Press and hold the “Set” button.
- Display will read “St.H” (setting the highest temperature).
- Press “Set” button again.
- Adjust the temperature between 0-950 degrees Fahrenheit using the up or down arrows (suggested temperature is 250 degrees Fahrenheit).
- Once you have selected the desired temperature, press the “Set” button to record the change.
- The display will show the room temperature and programming is finished.

5. "A0" Settings 1-4 **(Not Recommended)**
(Programming settings only intended for technicians)

- To skip past these settings, press the "Set" button several times until you return back to the home screen.
- Do NOT change these values unless you have the qualified information to do so.
- If you accidentally change these values, the factory default values are: A01-0, A02-0, A03-0, A04-1.

FOAMING OR FROTHING MILK

Foaming milk can be divided into three basic steps:

1. Fill a 32 oz. steaming pitcher 1/3 full of cold milk. Place the tip of the steam wand 1/2" below the surface of the milk.

2. Open the steam valve just enough to create turbulence to produce foam.

3. As foam begins to rise, lower the pitcher so that the tip of the wand is always about 1/2" below the surface of the milk. As foam nears the top, insert the wand into the milk to bring the product to proper temperature.

Milk foams better when cold. After making drinks, it is important to return the unused milk to the refrigerator right away.

*** For quality, it is suggested not to use the milk again once it has been heated once.**

REGULAR CLEANING

1. BACKFLUSHING

Backflushing with detergent is recommended at the end of each day for commercial operations. For lower volume operations, backflushing with plain water is still recommended any day the machine is used and backflush with detergent at the end of any week that the machine is used.

Remove the filter basket from the portafilter. Replace with a blank filter (also referred to as a blind filter). Make sure the blank filter is pressed all the way into the portafilter. Put less than 1/8 teaspoon of Astra group cleaning detergent into the portafilter. Insert the portafilter into the group head. With the blank filter, nothing will dispense from the portafilter and the cleaning powder will escape at the relief valve under the group head thereby cleaning the brewing mechanism.

After the portafilter is placed on the machine, press the Brew/Stop button to 'ON' position for 3-5 seconds then turn off. Repeat this process 4 more times. Do NOT add cleaning solutions each time, just repeat pushing the Brew/Stop button for 5 seconds duration each time. After the fifth time, remove the portafilter and rinse it out to make sure there is no remaining cleaning solution.

Insert the portafilter back into the group head and repeat the process WITHOUT any cleaning powder. When the backflush water becomes clear, remove the blank filter and replace it with a regular filter. If you have a two or three-group machine, repeat this process with each group. Backflushing is an important maintenance step and must be done a minimum of 3 times a week and even daily with high volume machines.

2. PORTAFILTER

The portafilter should be kept on the group head at all times to keep it hot. After knocking grounds into the knockout box, there will be some grounds left in the filter. Before inserting the portafilter back into the group, push the Brew/Stop button to dispense hot water from the group to purge the group.

BE CAREFUL NOT TO PLACE YOUR HANDS OR FINGERS UNDER OR ON THE GROUP HEAD. The hot water will rinse off any remaining grounds. Push the Brew/Stop button to stop.

On a weekly basis, fill the sink with hot water, add cleaning powder/solution, and mix thoroughly. Remove the basket(s) from the portafilter(s). Place both parts into water and let the part(s) sit overnight if possible. Next morning, using the cleaning brush, scrub and rinse the filter and replace back into the portafilter. Ensure that when you replace the baskets, the single filter basket is inserted into the single portafilter, and the larger double filter basket is inserted into the double portafilter.

3. STEAM WAND

Wipe down the steam wand with a damp cloth and purge it after every use. To purge, place the wand tip down toward the tray and open the valve for several seconds to allow steam to clear out the tip of the wand. For a clogged steam wand, soak the end of the wand in milk frother cleaning solution for about 30 minutes. For any remaining buildup, turn off the machine and allow it to cool. Then gently clean the pinholes on the end of the wand with a small cleaning brush.

4. LONG-TERM SEDIMENT BUILDUP

For long-term sediment buildup, review the maintenance list below.

MAINTENANCE CHECKLIST

1. If your machine is plumbed, please ensure that the water treatment system has been replaced or regenerated according to its maintenance schedule. For systems purchased from Astra, recharging the softener every 6 months is recommended. For high volume locations, recharge every 3 months.

2. Replace the following parts annually for best performance::
   a) Group Gasket (A10040 - #8)
   b) Infusion Spray/Orifice (A10020)
   c) Group Mesh Filter (A10021)
   d) Shower Screen (A10060)
   e) Group Electrovalve (A10110 for 110V or A10111 for 220V)

*Parts can be ordered on www.astramfr.com

Inspect the following parts annually. Replace as needed:

f) Inlet Water Electrovalve (A10360 for 110V or A10361 for 220V machines)

g) Steam Pivot Rebuild Kit -Spring, Brass Seat, & 2 O-Rings (A10469)

h) Steam Valve Kit, No Wand- (A10440) or Complete Kit w/ Steam Wand- (A10441)

3. Check the pressure-stat:

a) Open the steam wand and at the same time look at the amber light and the gauge

b) The amber light must be lit when the pressure drops to 12 - 13 PSI

c) If it does not the pressure-stat must be replaced (A10170)

4. Make sure that the vacuum valve on top of the boiler is not stuck in the up position. If it is, it must be replaced.

5.Turn the machine OFF, UNPLUG the machine and make sure that ALL of the electrical connections are tight and secure and that there are no signs of burn damage to the electrical connections or plugs.

For the full manual, including additional directions, machine diagrams, recipes, and more, visit:

www.astramfr.com/manual

FIGURE 1: TECHNICAL SPECIFICATIONS

	GA021-1	GA021	M1011-1	M1011	M2C014-1	M2C014	M2012	M3013
Cups/hr	180	180	180	240	360	360	480	720
Watts	2000	2700	2000	2700	2000	2700	4500	5500
Volts	110	220	110	220	110	220	220	220
Amps	20	20	20	20	20	20	30	30
Water	Plumbed	Plumbed	Plumbed	Plumbed	Plumbed	Plumbed	Plumbed	Plumbed
Boiler Capacity (L)	4.2	4.2	7	7	7	7	12.5	17
Width (in)	13	13	19.25	19.25	19.25	19.25	27.25	35.5
Depth (in)	20	20	19.5	19.5	19.5	19.5	19.5	19.5
Height (in)	17	17	22	22	22	22	22	22
Portafilters (single/double)	1/1	1/1	1/1	1/1	1/2	1/2	1/2	1/3
Certifications	ETL listed to NSF-4, UL 197, and CSA C22.2 No. 109							

	GS022-1	GS022	M1S016-1	M1S016	M2CS019-1	M2CS019	M2S017	M3S018
Cups/hr*	180	200	180	240	270	360	480	720
Watts	2000	2700	2000	2700	2000	2700	4500	5700
Volts	110	220	110	220	110	220	220	220
Amps	20	20	20	20	20	20	30	30
Water	Plumbed	Plumbed	Plumbed	Plumbed	Plumbed	Plumbed	Plumbed	Plumbed
Boiler Capacity (L)	4.2	4.2	7.0	7.0	7.0	7.0	12.5	17.0
Width (in)	13	13	19.25	19.25	19.25	19.25	27.5	35.5
Depth (in)	20	20	19.5	19.5	19.5	19.5	19.5	19.5
Height (in)	17	17	22	22	22	22	22	22
Portafilters (single/double)	1/1	1/1	1/1	1/1	1/2	1/2	1/2	1/3
Certifications	ETL listed to NSF-4, UL 197, and CSA C22.2 No. 109							

FIGURE 2: SEMI AUTOMATIC MEGA 1,2,3



FIGURE 3: AUTOMATIC MEGA 1,2,3



SECTION 3

STEAMERS

AUTOMATIC POUROVER STA1300
SEMI-AUTOMATIC POUROVER STS1300
SEMI-AUTOMATIC POUROVER STP1800
SEMI-AUTOMATIC STS1800, STS2400, STS4800
AUTOMATIC STA1800, STA2400, STA4800

FIRST TIME OPERATION

PRIME THE MACHINE

This process is important to follow upon first use or any time the boiler has been completely drained, such as during repair or cleaning.

Open any steam valve and leave it open by turning the knob counterclockwise. If your model has no knob on the front panel. Place the switch to manual position and turn on the machine. The pump will start to push the water into the boiler. If both indicator lights do not light shortly after the pump stops, this means that the water has not yet reached the proper level. Leave on for about 1 minute. Toggle 'Off' for 15 seconds. During very first use, you may have to do this 3-4 times as the pump continues to fill the boiler. When both indicator lights come on and stay on; the machine is in heating mode.

Ensure that the steam valve stays open. Once the steam begins to disperse from the steam wand, close the valve. You can do this by turning the knob clockwise or turning the switch back to "Automatic" if yours has no knob. The warm-up process can take 10 to 20 minutes. When the "Boiler Pressure" arrow on the gauge is between 15 and 17 PSI, the machine is ready to be used. The amber light will go on and off throughout operation as the heating element cycles to maintain the internal temperature.

AUTOMATIC STEAM WAND PROGRAMMING

When boiler pressure on the gauge is between 15 and 20 PSI, you are ready to put the machine into program mode. This procedure is used to program the desired temperature for automatic steam wands. Your machine comes pre-programmed with the factory-suggested setting, 165 degrees Fahrenheit. Ensure that the machine is ON and LED displays the current temperature.

Each steam wand can be programmed and operated INDEPENDENTLY, however, it is recommended that settings 2-6 be left on factory default for standard machine operation.

1. Setting the Desired Temperature (the desired temperature for the beverage)
- Press the "Set" button on the display.
- Display will read "Set." Press "Set" button again.
- Display will read "165°F".
- If you would like to change this pre-set temperature, press the up arrow to raise the temperature. Press the down arrow to lower the temperature.
- Once you have selected the desired temperature, press the "Set" button.
- The display will show the sensor's current temperature.

2. Setting the Accuracy Tolerances **(Not Recommended)**
(the level of acceptable variance on the programmed temperature)
- Press and hold the "Set" button.
- Display will read "Cor". Press "Set" button again.
- Adjust the temperature between 0-20 degrees Fahrenheit using the up or down arrows (default is set at 0 degrees Fahrenheit).
- Once you have selected the desired temperature, press the "Set" button.
  * Example: variance of ±3°F for pre-set temperature of 165 degrees Fahrenheit = 162-168 degrees Fahrenheit.

3. Setting the Differential Temperature **(Not Recommended)**
(Adjustment for inconsistencies based on environmental factors)
- Press and hold the "Set" button.
- Display will read "Dlf". Press "Set" button again.
- Adjust the temperature between 2-40 degrees Fahrenheit using the up or down arrows.
- Once you have selected the desired temperature, press the "Set" button.
- The display will read "St.2".
- Press "Set" button again.
- Display will show the selected temperature from step 1.
- Press "Set" button to record the change.

4. Setting the Upper Limit Parameters **(Not Recommended)**
(Boiler internal highest temperature)

- Press and hold the “Set” button.
- Display will read “St.H” (setting the highest temperature).
- Press “Set” button again.
- Adjust the temperature between 0-950 degrees Fahrenheit using the up or down arrows (suggested temp. is 250 degrees Fahrenheit).
- Once you have selected the desired temperature, press the “Set” button to save.
- The display will show the room temperature and programming is finished.

5. Setting the Lower Limit Parameters **(Not Recommended)**
(Boiler internal lowest temperature)

- Press and hold the “Set” button.
- Display will read “St.L” (setting the lowest temperature).
- Press “Set” button again.
- Adjust the temperature between 0-150 degrees Fahrenheit using the up or down arrows (suggested temp. is 100 degrees Fahrenheit).
- Once you have selected the desired temperature, press the “Set” button to save.
- The display will show the room temperature and programming is finished.

AUTOMATIC STEAMER OPERATION

USING THE AUTOMATIC STEAMING FUNCTION

- Direct the steam wand towards the drain tray.
- Move the switch located underneath the display to the “Manual” position to displace condensation.
- Let the steam blow out for a few seconds.
- Move the switch to the “automatic” position, this will turn the steam wand off.
- Insert the steam wand into the desired amount of milk.
- Press “Start” and begin using.
- Once the milk has reached the proper temperature, the steam wand will automatically stop.
- To stop the automatic steaming at any time, press the “Stop” button.
- Remove the steam wand from the milk and point towards the drain tray.
- Press the “Manual” button for a few seconds; this will clear the milk inside the steam wand.

Use a damp cloth to wipe down the steam wand.

- Move the switch to the “Automatic” position to turn the steam wand off.

USING THE MANUAL STEAM FUNCTION WITH AUTOMATIC WAND

- Direct the steam wand towards the drain tray.
- Move the switch located underneath the display to the “Manual” position.
- Let the steam blow out for a few seconds.
- Move the switch to the “Automatic” position; this will turn the steam wand off.
- Place a desired amount of milk under the steam wand.
- Move the switch to the “Manual” position.
- Once the milk has reached the proper temperature, move the switch to the “Automatic” position.
- Remove the steam wand from the milk and point towards the drain tray.
- Press the “Manual” button for a few seconds; this will clear the steam wand. Use a damp cloth to wipe down the steam wand.
- Move the switch to the “automatic” position to turn the steam wand off.

FOAMING OR FROTHING MILK

1. Fill a 32 oz. steaming pitcher 1/3 full of cold milk. Place the tip of the steam wand 1/2” below the surface of the milk.

2. Open the steam valve completely in order to create enough turbulence to produce foam.

3. As foam begins to rise, lower the pitcher so that the tip of the wand is always about 1/2” below the surface of the milk. As foam nears the top, insert the wand into the milk to bring the product to proper temperature.

Milk foams better when cold. After making drinks, it is important to return the unused milk to the refrigerator right away.

**** It is suggested not to use the milk again once it has been heated once.**

REGULAR CLEANING

1. To remove the drain tray, lift up the tray cover first and then the tray. The tray should be emptied and cleaned daily.

2. Wipe down the steam wand with a damp cloth and purge it after every use. To purge, place the wand tip down toward the tray and open the valve for 1-3 seconds to allow steam to clear out the tip of the wand.

3. For a clogged steam wand, soak the end of the wand in milk frother cleaning solution for about 30 minutes.

4. For any remaining buildup, turn off the machine and allow it to cool. Then gently clean the pinholes on the end of the wand with a small cleaning brush.

MAINTENANCE CHECKLIST

1. If your machine is plumbed, please ensure that the water treatment system has been regenerated and/or replaced according to its maintenance schedule. For systems purchased from Astra, replacing the cartridges every 5-6 months is recommended. For high volume locations, recharge every 3 months.

2. Annually examine parts that experience the most wear and tear. Replace as needed:
a) Inlet Water Electrovalve (A10360 for 110V or A10361 for 220V machines)
b) Steam Pivot Rebuild Kit -Spring, Brass Seat, & 2 O-Rings (A10469)
c) Steam Valve Kit, No Wand- (A10440) or Complete Kit w/ Steam Wand- (A10441)

3. Check the pressure-stat:
   a) Open the steam wand and at the same time, look at the amber light and the gauge.
   b) The amber light must be lit when the pressure drops below 12 PSI.
   c) If it does not, the pressure-stat must be replaced (A10170).

4. Check to ensure that the machine is properly supplying water to the boiler.

5. Make sure that the vacuum valve on top of the boiler is not stuck in the up position. If it is, it must be replaced.

6. Turn the machine OFF, UNPLUG the machine and make sure that ALL of the electrical connections are tight and secure and that there are no signs of burn damage to the electrical connections or plugs.

TECHNICAL SPECIFICATIONS

	STS 1300	STA 1300	STP 1800	STS 1800	STS 2400	STS 4800	STA 1800	STA 2400	STA 4800
Watts	1300	1300	2000	2000	2700	4800	2000	2700	4800
Volts	110	110	110	110	220	220	110	220	220
Amps	20	20	20	20	20	30	20	20	30
Water	Tank	Tank	Tank	Plumbed	Plumbed	Plumbed	Plumbed	Plumbed	Plumbed
Boiler Capacity (L)	2.6	2.6	4.2	4.2	4.2	7.0	4.2	4.2	7.0
Width (in)	11	11	13	13	13	13	13	13	13
Depth (in)	18	18	20.5	20.5	20.5	20.5	20.5	20.5	20.5
Height (in)	15	15	17	17	17	17	17	17	21
Certifications	ETL listed to NSF-4, UL 197, and CSA C22.2 No. 109								

WARRANTY INFORMATION

The warranty information and restocking policy applies to all Astra espresso machines, steamers, grinders, accessories, and parts.

Astra offers its Customers a 1 year labor warranty (within the U.S.) and 2 years parts warranty against any defect except wear and tear items. Parts and accessories (sold separately) have a 90-day warranty. Warranty coverage starts from the date of mail delivery of the Product by Astra. These Warranties are not transferable. Astra warrants that products will perform the functions described in the operation manual provided by Astra when used as intended and in accordance with the operating instructions. Warranty parts or labor shall only be covered if authorized by Astra.

Astra will replace or repair, at Astra's option, any major component of the Product if that component is defective when shipped from Astra. Normal wear-and-tear of parts is not covered, including wear-and-tear of gaskets, Orings, plastic knobs, handles, filters, electro-valves, sensors, and pumps. Proper water softener and water filtration system must be utilized and maintained. If there is no filtration/softener installed or if the system is improperly maintained, the warranty will be void. The Customer and/or any user shall be solely responsible for the selection, installation, use, efficiency, and suitability of the Product and Astra bears no liability consequently.

If the Product is damaged by faulty electrical connections, or damaged by dirty water, scale build-up, or if the Product is used differently than set forth in Astra's operating instructions or from its intended use, then this warranty shall be null and void. If the Product does not bear an authorized Astra serial number or is in possession of companies or persons other than the original registrant, the warranty shall be null and void.

The warranty registration must be received via mailed form or online at www.astramfr.com/warranty within 10 days of the delivery date to be effective. Astra must be contacted prior to return of any warranty covered part for Astra's warranty authorization. All parts shall be sent to Astra by prepaid shipping and all warranty replacement parts will be sent to the Customer collect.

In no event shall Astra be liable to Customer or end user for any damages and/or injuries resulting from or relating to any use, operation or failure of the Product. In no event shall Astra be liable to Customer, end User or third Party for any indirect, special or consequential damages or loss of profits arising from or related to the performance, use or lack of performance of the Product. Astra's liability to the Customer, end User or third Party if any, shall in no event exceed the total amount paid to Astra by Customer for the Product.

Manufacturer reserves the right to change or alter, at any time and without notice, the terms of the warranty. Please see the Astra Manufacturing website for complete and up-to-date warranty information.

Re-stocking Policy

Products must be in new, unused condition and be returned with all original and unused packaging and components. Once received and inspected, a credit will be issued to purchaser for the net purchase price, less a 35% restocking fee.

For the full manual, including additional directions, machine diagrams, recipes, and more, visit:

www.astramfr.com/manual

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The information in this document affects your legal rights and responsibilities when operating or owning an Astra product. It is important to read the entire document carefully to ensure proper configuration before use. Failure to read and follow instructions and warnings in this document may result in injury to yourself or others, damage to your Astra machine, or other objects in close proximity. This document and all other collateral documents are subject to change at the sole discretion of Astra Manufacturing.

By using this product, you hereby signify that you have read this disclaimer and warning carefully and that you understand and agree to abide by the terms and conditions herein. You agree that you are solely responsible for your own conduct when setting up and operating the machine and for any consequences therefor. You agree to use this product only for purposes that are proper and in accordance with all applicable laws, rules, and regulations, and all terms, precautions, practices, policies, and other guidelines Astra has or may set forth. Astra Manufacturing, and its subsidiaries, accepts no liability for damage, injury, or and other legal responsibility incurred directly or indirectly from the use of this product.

MODEL / SERIAL NO.

INSTALL DATE

NOTES

ASTRA™

QUICK START GUIDE	Version 2022.1
ASTRA ESPRESSO MACHINES & STEAMERS	