schaerer

2020 UPDATE USE THIS VERSION - PLAN-O-GRAM CHANGE, SPANISH, AND TURN ON TELEMETRY

Schaerer Coffee Art C 3G H/C Install and CalibrationGuide

Version 1

Current Software v6.22.X
WITH SPANISH

Sec. 1: Required Tools

1. Service Card (for accessing settings and service menus)
2. Gram Scale (for measuring weight volume)
3. Clamp Multimeter (for measuring AC Voltage and checking Current)
4. Thermometer or Digital Temp Meter
   (*Alternative Tool: Clamp Meter w/ Temperature Measuring capabilities)*
5. Teflon Tape (for Water Filter Installation)
6. Basic Hand Tools
   - Short Hex Screwdriver (Short Schaerer tool)
   - Long Hex Screwdriver (Long Schaerer tool)
   - Metric Nut Drivers Set 5-13mm
   - Metric 1/4" Socket Set 5-13mm
   - 3/16" Flat Blade Screwdriver
   - 1/4" Flat Blade Screwdriver
   - No. 1 Phillips Screw Driver
   - No. 2 Phillips Screw Driver
   - Combination Wrenches Metric 7mm - 17mm
   - Adjustable Wrench 10"
   - Tape Measure
7. USB Stick with software and settings
8. Grinder Adjustment Knob (for adjusting grinder coarser / finer)
9. Service stickers
10. Disposable Cups

Sec. 2: Voltage Test, Flush Filter, Water, Drains

Items Needed:

1. NEMA L6-20R
2. Clamp multimeter with probes

5a. Connect and identify the NEMA L6-20 Receptacle. Note which terminals are hot or ground (See image 5a).

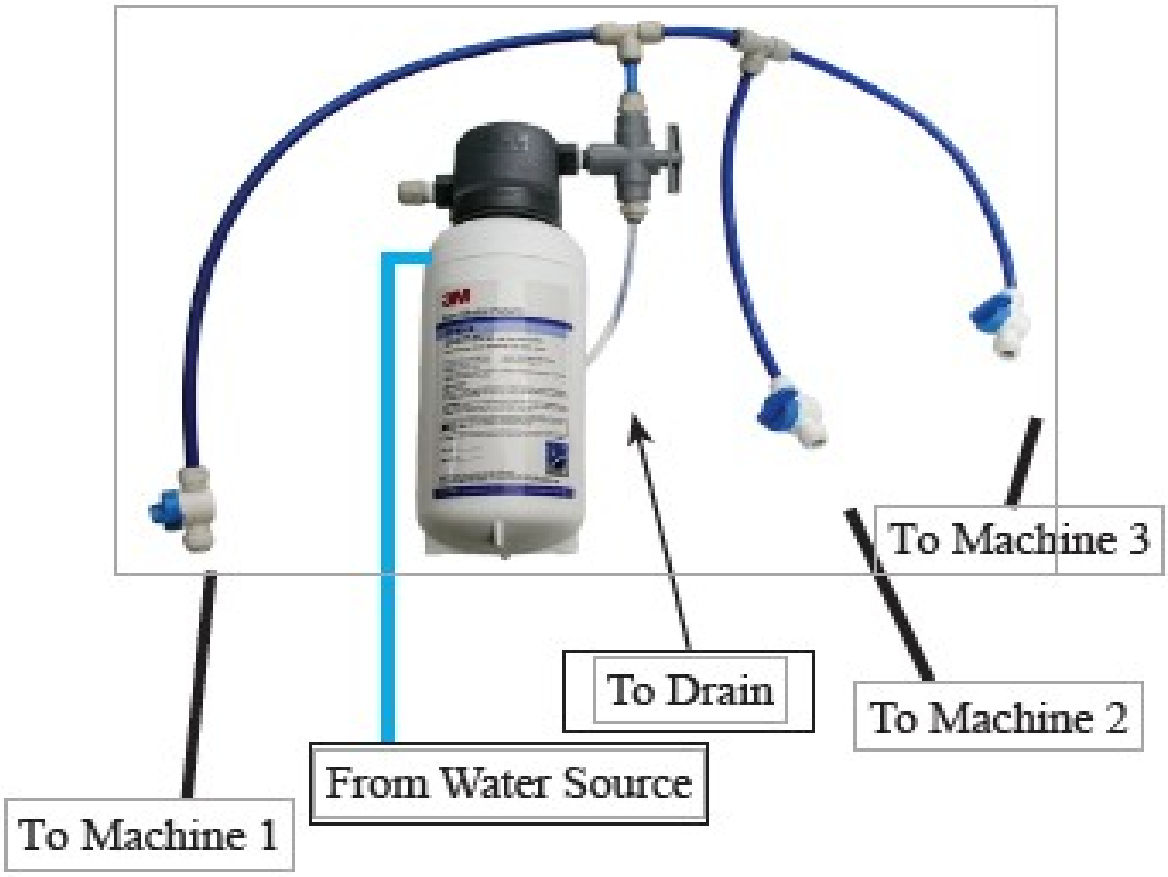
5b. Using the clamp multimeter, turn the measuring setting to measure Voltage AC (See image 5b).

5c. Measure the voltage between the hot and ground wire terminals: The measured voltage should be within 110-120 Voltage AC (See image 5c).

5d. Measure the voltage between the two hot wire terminals: The measured voltage should be within 205-245 Voltage AC (See image 5d).

If the values are correct, the NEMA L6-20R and supply voltage are working properly. Otherwise, contact Schaerer Support.

Filter Installation ▶

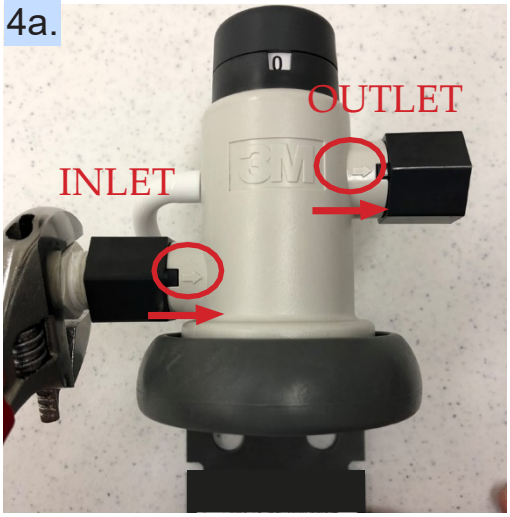


Water Filter Installation

4a. Remove the system from the package and ensure all parts are there:

Part Name	Required Amount
Filter Valved Head	1
Filter Cartridge	1
1/4" John Guest Fitting	1
3/8" John Guest Fitting	2
2/3 Way Valve	1
1/4" Clear Tube (6 ft)	1
3/8" Blue Tube	2
Wood Screws	2

4a.

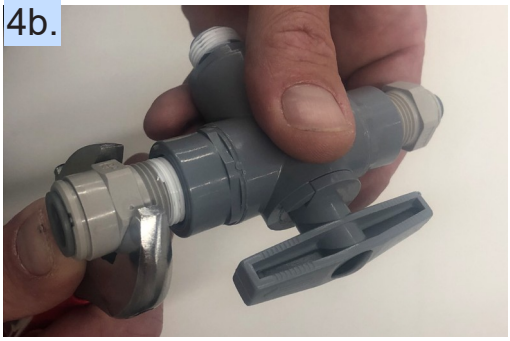


4b. Wrap a few layers of teflon tape onto the fitting threads. Insert one of the 3/8” John Guest Fittings onto the INLET of the filter head (See image 4a).

Place the remaining 1/4” and 3/8” fitting onto the 2/3 Way Valve (See image 4b).

NOTE: Do NOT fully tighten the fittings! Doing this will cause damage to the fittings and filter head. Use teflon tape if possible.

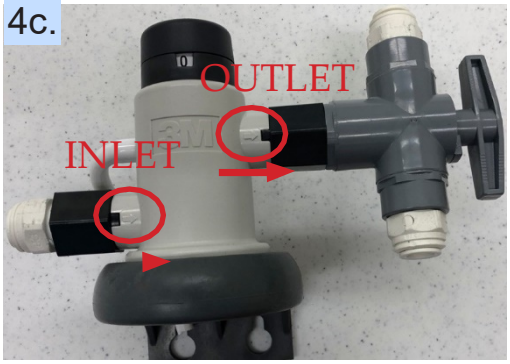
4b.



3c. Insert the 2/3 Way Valve into the OUTLET of the filter head (See image 4c) The filter head is now ready to be mounted and connected.

NOTE: Do NOT fully tighten the fittings! Doing this will cause damage to the filter head.

4c.



4d. Note the warning below. Make sure the filter head will be horizontally level by using a level. Using the filter head as a reference, mark and drill holes into appropriate mounting surface (see image 4d)

NOTE: Before starting the following mounting process make sure:

- **The inlet water supply is turned off**
- **The mounting location is a wood wall or dry-wall with plastic panels (any type of tile or masonry needs special equipment!)**
- **The filter cartridge will have 3 - 4 inches below for future change-outs**

4d.

Filter Installation Cont'd - Documentation

4e. Remove the safety cap for the filter cartridge. Insert the filter cartridge into the filter head with the label facing the left side (INLET side) of the machine (see image 4e), and then fasten counterclockwise to connect the cartridge to the filter head.

4f. (See image 4f) Connect the 1/4" Clear tube to the 1/4" fitting (FLUSH TUBE). Cut the 3/8" Blue tube accordingly to the distance between the water filter and water supply (INLET TUBE) and distance between water filter and machine location (OUTLET TUBE). Connect the 3/8" Blue tubes to the 3/8" fittings and the inlet water supply.

4g. Turn the 2/3 Way Valve towards the flush tube (See image 4g). Make sure the flush tube is in a sink or large drainage container. Turn on the water supply. Flush 2 gallons of water (approximately 2 minutes). During this time, check for and fix any leaks.

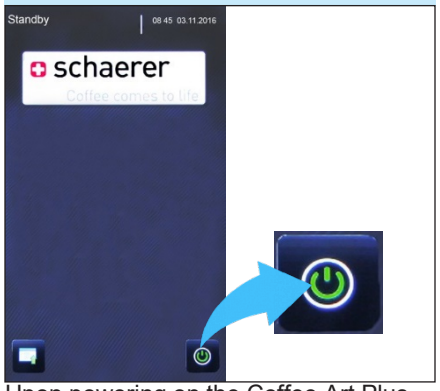
4h. Turn off the water supply. Turn the 2/3 Way Valve to the outlet tube towards the machine (See image 4h). Make sure the outlet tube is in a sink or large drainage container. Turn on the water supply. Check for and fix any leaks. Turn off the water supply. Do not connect to machine until after water hardness test.

Sec. 4: Utilities Connection

9a.

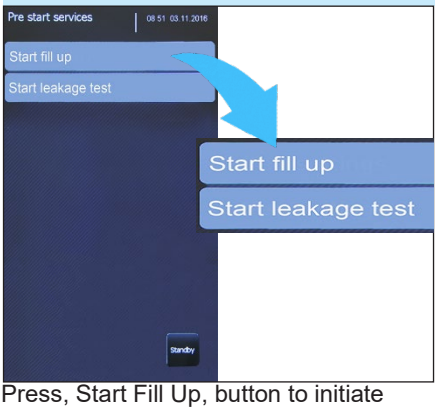
1. Connect drain tube to machine drip tray and route to drain.
2. Connect water source to plastic pipe and John Guest fitting.
3. Turn on water and check for leaks.
4. Guide power cord to NEMA L6-20R plug to receptacle and plug it in.

9b. ▶



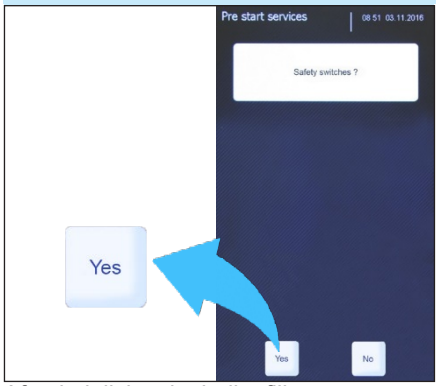
Upon powering on the Coffee Art Plus with Touch Display, the machine will go through the boot process landing on standby page. From Standby Page, Press and the Start Fill Up Screen will be displayed.

9c. ▶



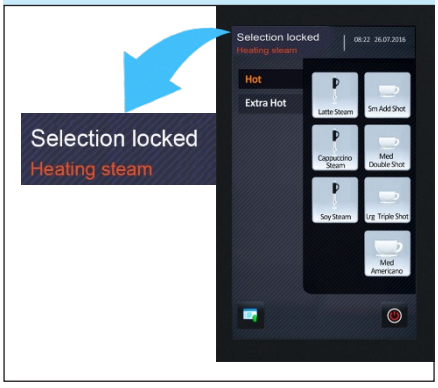
Press, Start Fill Up, button to initiate boiler fill program.

9d.



After intializing the boiler fill program, you will be prompted to answer Safety Switch question. Push “Yes” button to proceed. After Boiler Fill Program time reaches 0:59, you will have the option to “Stop” the boiler fill program by pressing the Stop button. Recommeded to “Stop” only if water is flowing from Coffee and Hot Water Spouts.

9e.

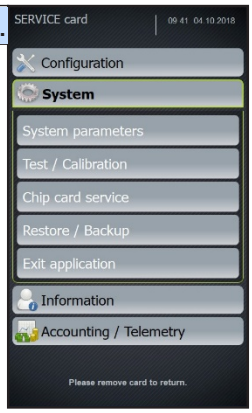


Selection Locked will be displayed in upper left hand side of display with “Heating Steam”, Heating Coffee Water” flashing below. The heating process will take approximately 2 minutes to complete and product selection will then be available.

Sec. 5: Loading software and settings

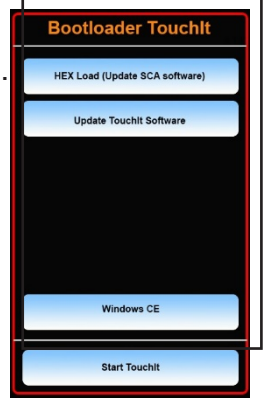
Loading Software

10a.



- Once machine boots, power on by pressing the bottom right power symbol.
- Insert service card, enter pin “1000”, press “System” category followed by “Exit Application” and remove service card.
- Screen should now display 10b. Insert the USB flashdrive with the latest software and let it sit for 10 seconds. Press “Update TouchIt Software. If flashdrive is loaded correctly with current data, display should show the latest software file (E.G. “SCA Touch 6.2x.xx (xxxxx).sca”). Press the button displaying latest software file to begin update process.

10b.



- Once flashdrive is finished loading, the machine will prompt for removal of flashdrive, followed by prompt for machine restart. TouchIt will now update. This will take a few minutes.
- Once the TouchIt has finished installing software, screen will display if you would like to “Actualize the SCA”. Press “Yes / Ja”.
- Once process is complete and displays “24 of 24”, press “Exit” at the bottom of the screen. If the machine does not prompt for a restart, press “Start TouchIt”.

Loading Settings

- Once machine boots, power on by pressing the bottom right power symbol.
- Insert service card, enter pin “1000”, press “System” category followed by “Restore / Backup”. Insert flashdrive with settings and wait 10 seconds. Press “Restore”, toggle “Machine configuration” and “Beverage configuration” and “Self-mode pictures”, then press “Start restore”
- Identify which machine configuration is being installed (A, B, C, D) according to the store’s planogram. Select the respective option that reflects this.
- Once restore has finished without error, remove the flashdrive and remove service card. Machine will reboot. Once in standby mode, press the power button on the bottom right corner. Make sure the screen layout is correct for the machine configuration selected.
- Insert service card, enter pin “1000”, press “Information” category to view the software: “SW Version SCA US 6.22.0”
  “SW Version TouchIt US 6.22.0”

  If the information does not display this nor a 6.2x.x software, the software is incorrect and outdated and needs to be reloaded (Restart this section).

Sec. 6: Date/Time Settings

Set clock, Set date, and Time Zone Configuration

- Insert service card, enter pin “1000”, press “Configuration” category followed by “Date/Time/Alarm”.

- **Locate and press “Set clock in 24 Hour/Military Time” and enter the current time. Press the save button save the changes. Telemetry will not work unless it is in Military Time.**

to

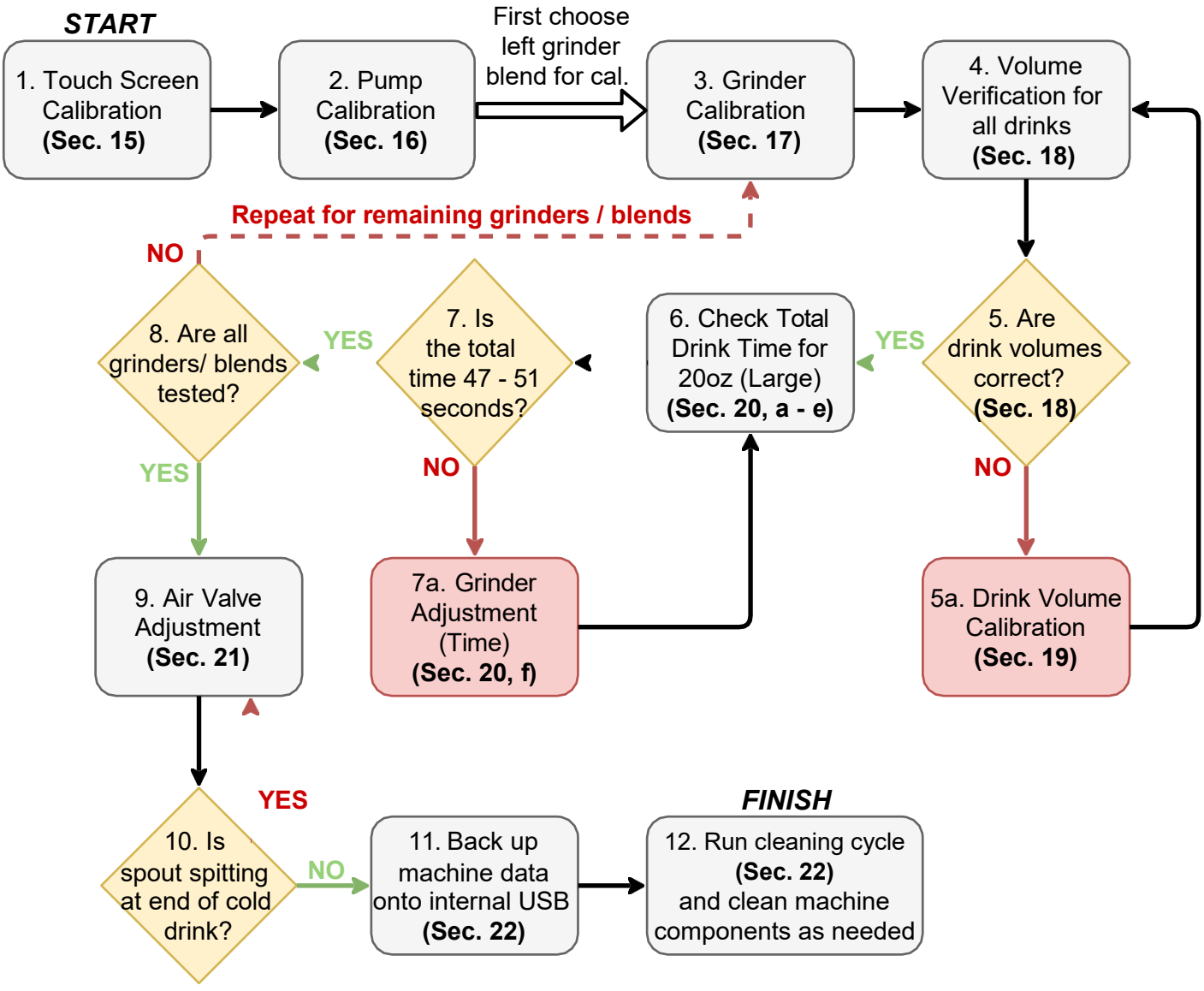
to

- Locate and press “Set date” and enter the current date. Press the save button save changes.
- Locate and press “Time Zone.” Select the respective time zone for the location. Press the save button to save changes.

Sec. 7: Calibration Process Overview

*You must complete the calibration for all three grinders! For the calibration guide, we will start on the left grinder, then right grinder, then front grinder.

For the entire calibration process, please refer to customer specifications.

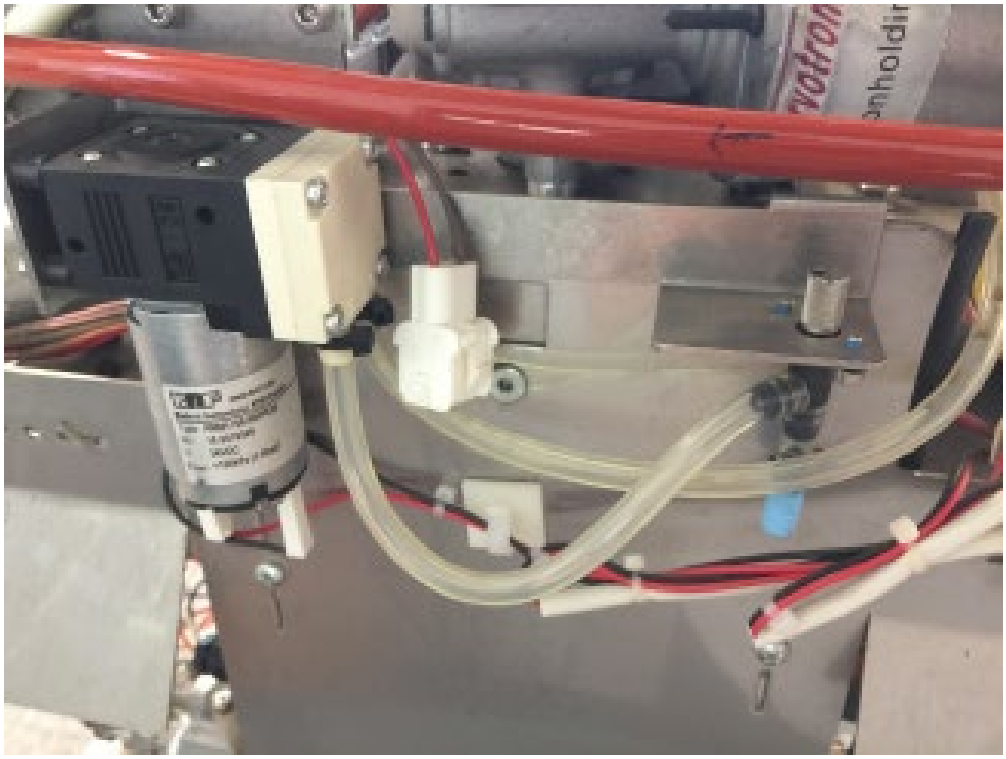


Sec. 8 : Air Valve Adjustment before adding beans

Locating the Air Valve: Using the short Schaerer tool:

- Unscrew the four screws on the top panel. Remove the top panel.
- Unscrew the two screws on the back panel. Remove the back panel.

Locate the air valve as circled in red in the image below it is in the back of the unit, about dead center, and about 2" from the top.



Adjusting the Air Valve:

Using a flat head:

- Tighten / close the valve by turning screw clockwise from top until stop
  NOTE: Don’t tighten it too hard to avoid damaging the parts
- Loosen / open by 1 turn (360 degrees) by turning counter-clockwise from top

Once the air valve is adjusted, dispense any iced drink and observe any spitting from the spout in the beginning and end of dispensing.

NOTE: If spitting is still observed, slightly close the screw (turning clockwise) until there is no spitting and re-run drinks. If there is residual coffee remaining in the brewing lines, slightly open the screw until dispensing runs smoothly.

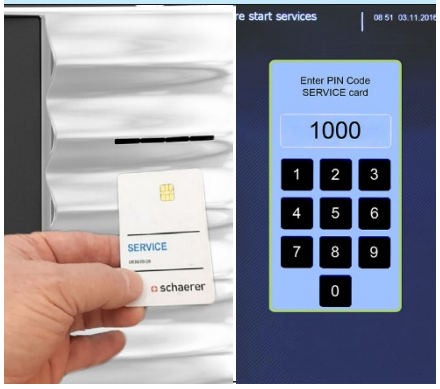
Once complete, use the short Schaerer tool to screw the panels back on.

Sec. 9: Touch Screen Calibration

Items Needed:

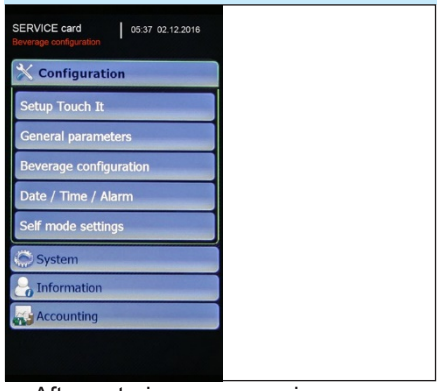
1. Service Card

15a.



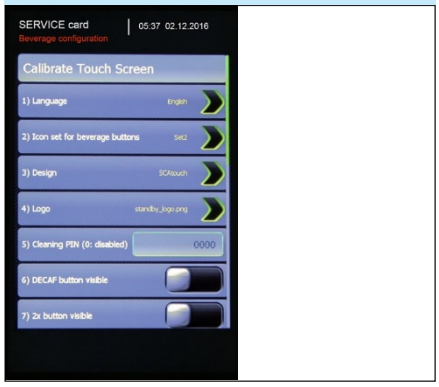
• Insert “SERVICE” card into card reader and enter ‘PIN CODE” to enter “Programming Menu.

15b. - Configuration Menu ▶



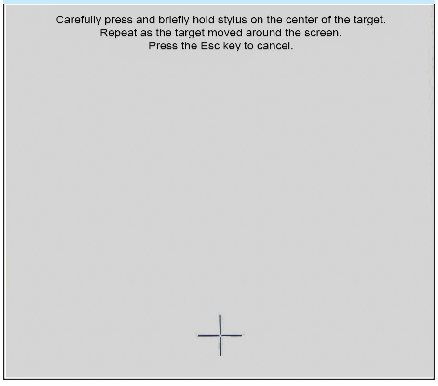
• After entering programming menu, Press “Setup Touch It”, to advance to next screen.

15c. - Calibrate Touch Screen Menu ▶



• Press “Calibrate Touch Screen” and wait for the white screen to appear as shown in 5d.

15d. ▶



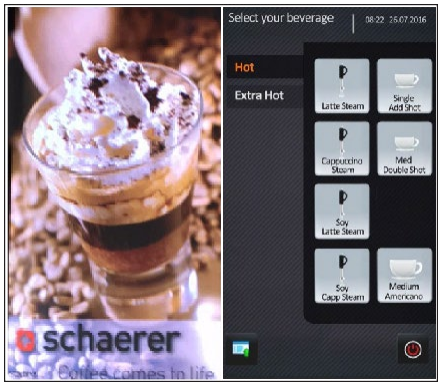
• After entering the White Screen, follow instructions on screen.

15e.

• After completing step 15d, another white screen will appear.

• Simply touch the screen to complete the process.

15f.



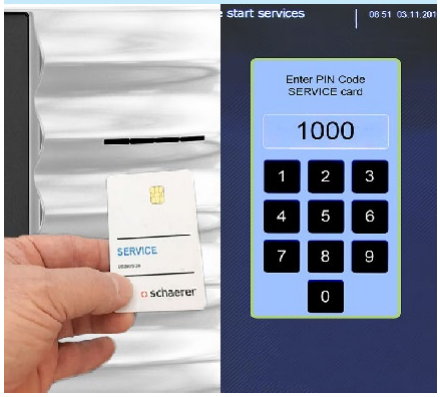
• After completing step 15e, the machine will reboot. Remove Service Card at this time.

• After machine has completed the reboot process, test touch display function and repeat process if necessary.

Sec. 10: Pump Calibration

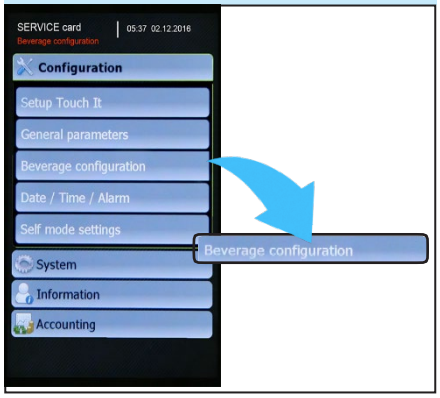
Items Needed:
1. Service Card
2 Flathead screwdriver

16a. ▶



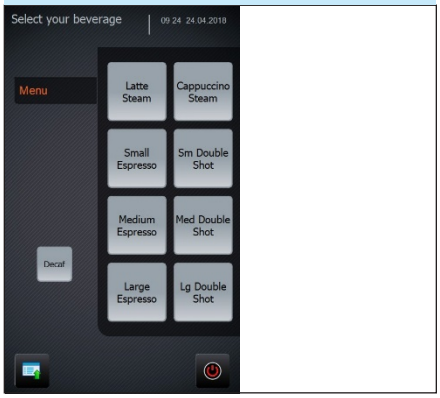
• Insert “SERVICE” card into card reader and enter “PIN CODE” to enter the programming menu.

16b. - Programming Menu ▶



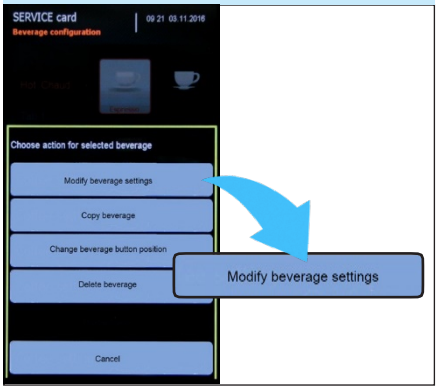
• After entering programming menu, press “Beverage configuration” button to continue.

16c. ▶



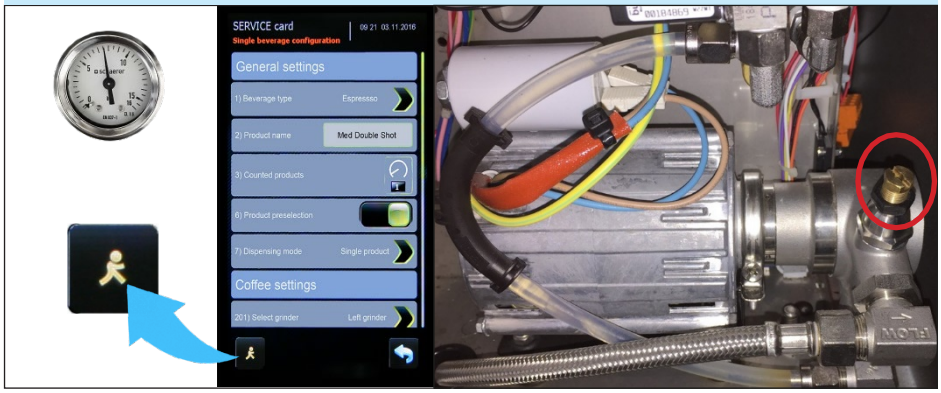
• After pressing “Beverage configuration” button, select a drink with the largest shot in single mode in a single cycle for calibration

16d. ▶



• After selecting drink button, press “Modify beverage settings” button to enter the “Single beverage configuration” screen.

16e. - Check Water Pump Pressure ▶



• Press “Walking Man” button and and note pressure gauge.

• NOTE: the Save icon may appear instead, press it and continue
• Pressure should read about 5 BAR **while drink is dispensing.**
• Press OK when shot is complete. I**f 5 BAR is reached**, continue with calibration.
• **If pressure is off,** removal of right panel is required. Locate the water pump as shown in the picture above and use a flathead to adjust the pump pressure adjustment as circled above in red.

**If brew pressure during dispensing is too low (<5 BAR), slowly turn clockwise while brewing and observe the pressure gauge WHILE dispensing, until 5 BAR is reached.

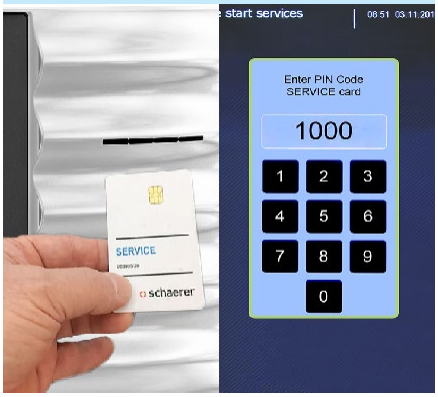
**If brew pressure during dispensing is too high (>5 BAR), slowly turn counter-clockwise while brewing and observe the pressure gauge WHILE dispensing, until 5 BAR is reached.

Sec. 11: Grinder Calibration

Items Needed:

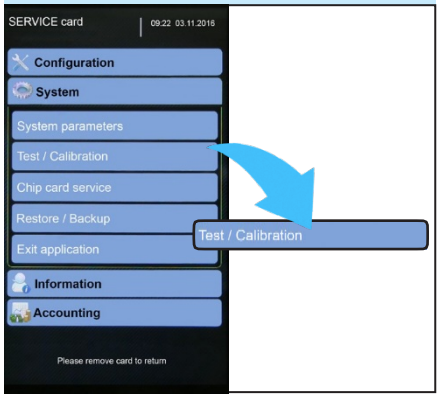
1. Service Card
2. Digital Gram Scale
3. 12oz Disposable Cup

17a.



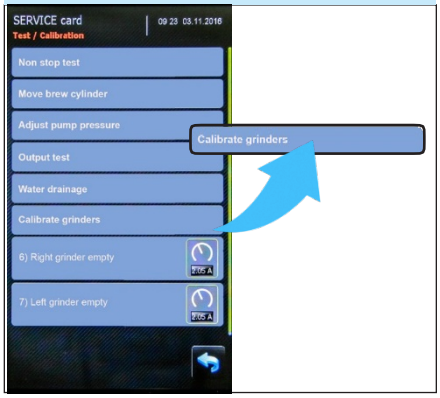
• Insert “SERVICE” card into card reader and enter “PIN CODE” to enter the programming menu.

17b. - Programming Menu



• After entering programming menu, press “Test / Calibration” button to enter “Test / Calibration” sceen.

17c.



• After entering “Test / Calibration” screen, press “Calibrate grinders” button.
• When “Calibrate grinders” button is pressed, brew chamber will raise.

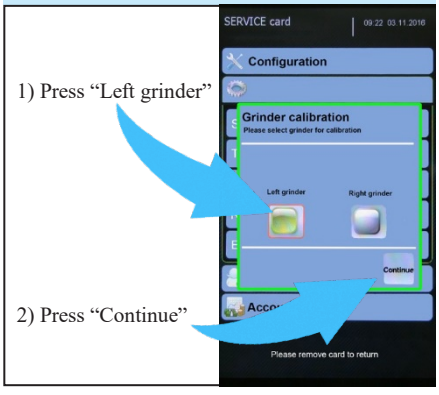
17d.

• Turn on scale and set to measure grams.
• Place 12oz disposable cup on scale and press “TARE”.

17e.

• Remove grounds bin tray and metal shield.
• Place cup on “Automat” as shown, to capture grinder output for measuring.

17f. - Grinder output



1) Press “Left grinder” button

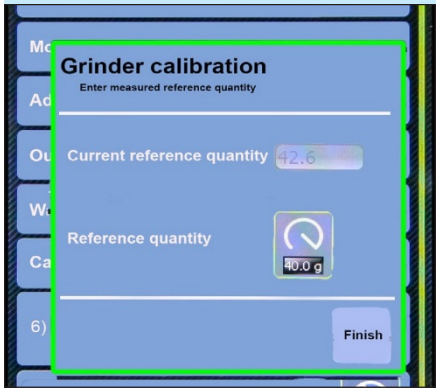
2) Press “Continue” button

Sec. 11: Grinder Calibration, Continued

17g. ▶

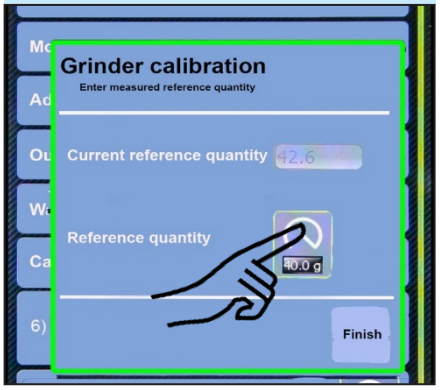
• After reference grinding has completed, remove 12oz cup from Automat and weigh.
• Press “Continue” button on screen.
• **NOTE: Do NOT press “Repeat”, otherwise the grinder calibration process must be restarted!**

17h. ▶



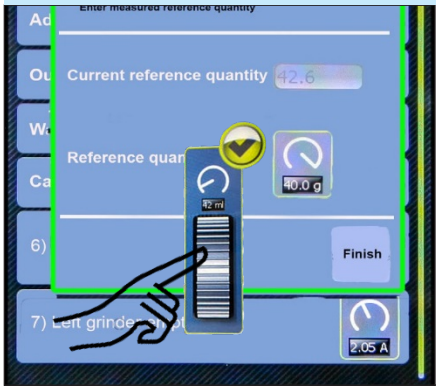
• Compare weight of actual grounds captured from Automat and “Current reference quantity” displayed on screen.

17i. - Grinder calibrate ▶



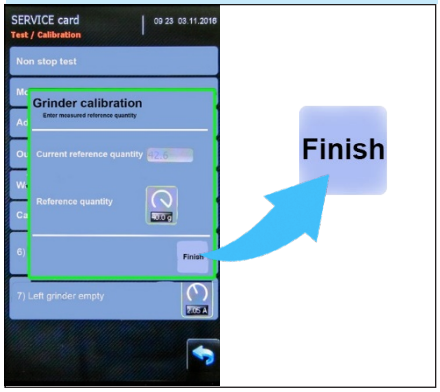
• If adjustment is required, press “Reference quantity” button to display graphical thumb wheel.

17j. ▶



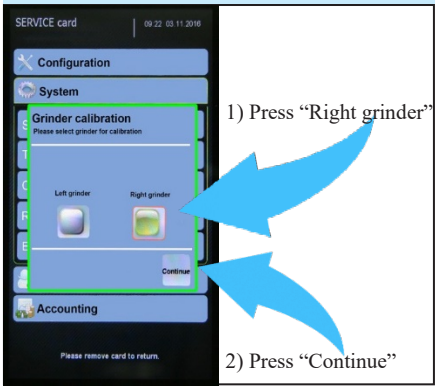
• Adjust reference quantity.
• Press “Green Check” icon.

17k. ▶



• Press “Finish Button” to complete.

17l.

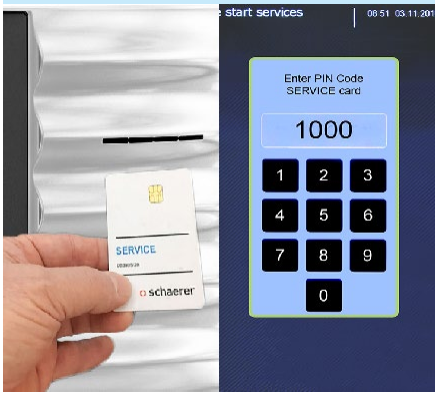


• Empty 12oz disposable cup.
• **Return to step 17d and repeat process this time pressing “Right grinder” button in step 17f. Then repeat again for “Front grinder”**

Sec. 12: Drink Volume Verification

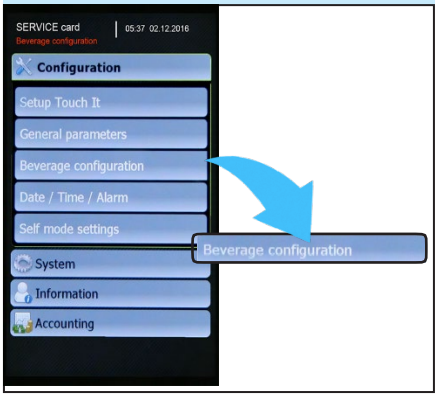
Items Needed:
1. Service Card
2. Disposable Cup based on drink size

18a. ▶



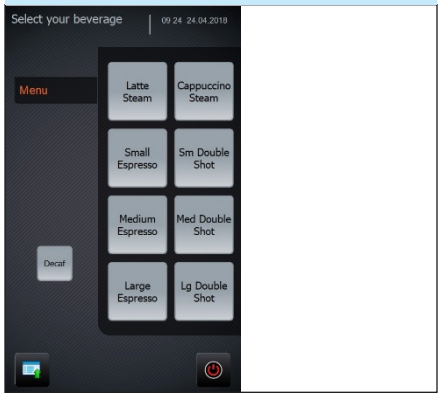
• Insert “SERVICE” card into card reader and enter “PIN CODE” to enter the programming menu.

18b. - Programming Menu ▶



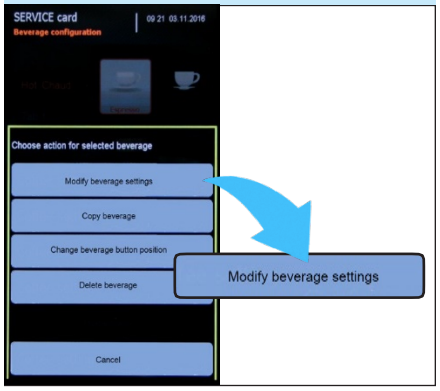
• After entering programming menu, press “Beverage configuration” button to continue.

18c. ▶



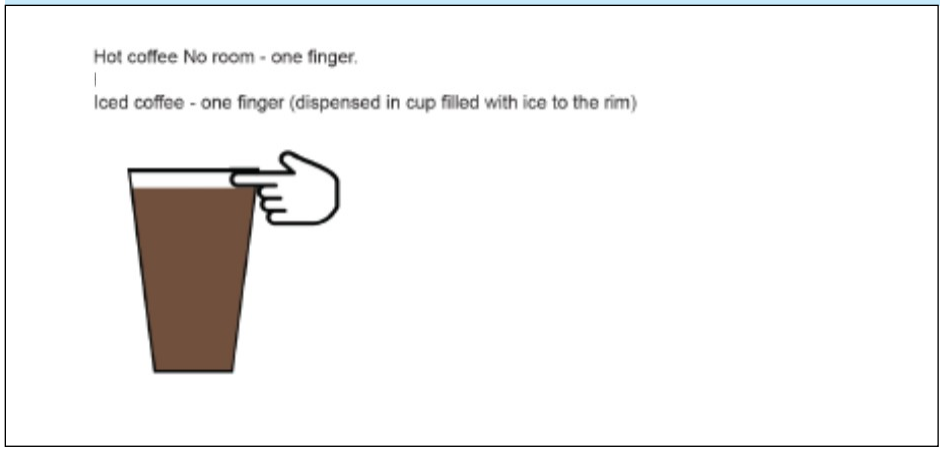
•

18d. ▶



• After selecting drink button, press “Modify beverage settings” button to enter the “Single beverage configuration” screen.

18e. - Drink Volume Verification ▶



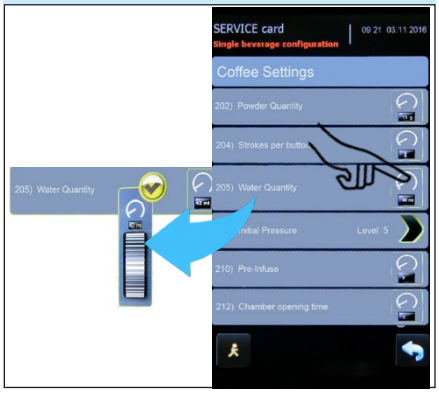
• Press “Walking Man” button on bottom left to dispense test drink.
• NOTE: The Save icon may appear on bottom center instead, press it and then continue to dispense drink
• **NOTE: Ensure drink is being dispensed in the correct cup size**
• Refer to the image above to see if the volume is correct. If the difference is noticeable, please refer to the next section for Drink Volume Calibration.
• NOTE: For iced drinks, make sure to fill the cup to the rim with ice.
• Press OK when shot is complete.

Sec. 13: Drink Volume Calibration

19a.

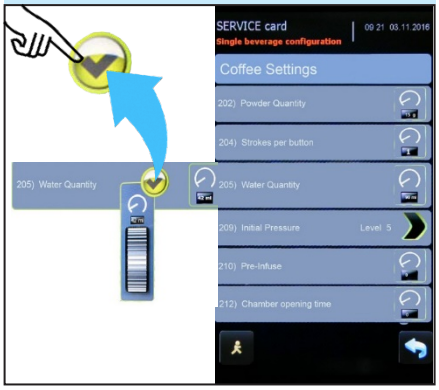
• From the previous section, find the setting for “Water quantity”.
• NOTE: See customer specifications on shot volume information.

19b. - Adjust Water quantity



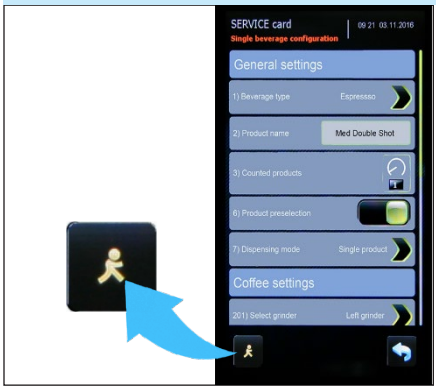
• Press “Water quantity” button to display graphical thumb wheel and adjust accordingly.

19c.



• Adjust “Water Quantity”.
• Press “Green Check” button to save changes.
• will appear at bottom of display. Press to save menu changes.

19d.



• Place empty Measuring Cup under dispensing spout.
• While still in “Single beverage configuration” screen, press “Walking Man” button on screen.

For Questions on Calibration,
Please Call 888.989.3004 (ext 1021)

Sec. 14: Drink Time and Grinder Adjustment

Items Needed:

1. Service Card
2. Measuring Cup
3. 20oz Disposable Cup
4. Grinder adjustment knob

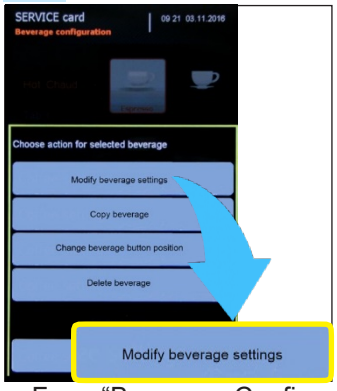
20a.

• Insert “SERVICE” card into card reader and enter ‘PIN CODE” to enter programming menu.

20b. - Programming Menu ►

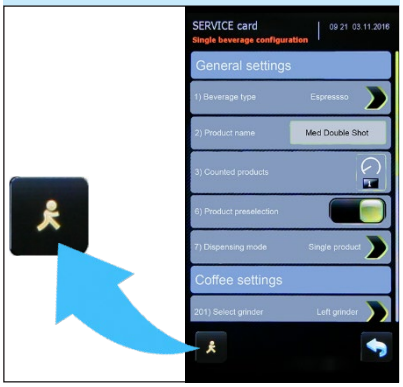
• After entering programming menu, press “Beverage configuration” button on screen to enter Beverage configuration screen.
• Select the 20oz large Espresso shot to test.

20c. - Beverage Config. Menu ►



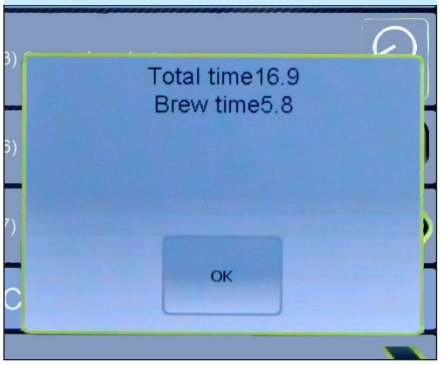
• From “Beverage Configuration” screen, press “Modify beverage settings” button. Refer to the recipe settings on the following page for customer specifications.

20d. ►



• Place Espresso Measuring Cup under dispensing spout.
• From “Single Beverage Configuration” screen, press “Walking Man” icon in lower left to dispense drink.
• Check Total time as displayed in step 18e.

20e.



• If Brew Time and volume do not meet customer specifications, adjust the grinder in step 20f (Please re- run the grinder calibration and drink volume calibration if this is done)
•NOTE: See customer specs for more information
• Re-check Brew Time after adjustments

20f. - Grinder Adjustment

Brew Time too high?
TDS too high?
Adjust COARSER counter-clockwise

Brew Time too low?
TDS too low?
Adjust FINER clockwise

• If needed, directly adjust the grinder coarser/finer: Remove the plastic plug on the top panel next to the grinder you are adjusting. The image circled shows the left grinder and front grinder plugs.
• The grinder adjustment is now exposed. Insert the grinder knob. Turn the grinder knob clockwise to adjust FINER, and counter-clockwise to adjust COARSER. Re-check brew times after adjustments.
• NOTE: Listen for the clicks. If you adjust 3 or more clicks in a single direction (total), please repeat the calibration process for the grinder you are calibrating starting from step 3 of flow chart (Sec. 14)!

Sec. 15: Backing Up USB Data and Cleaning Cycle

Backing Up Data into Internal USB:

- Insert service card, enter pin “1000”, press “System” category followed by “Restore / Backup”. Press “Backup” to back the data into the machine’s internal USB drive.

Cleaning Cycle Procedures:

1. ▶

- Use only Schaerer cleaning supplies for this procedure.

2. ▶

- When the “Start cleaning” mes- sage appears on the screen, press “OK” and move to the next step.

3. ▶

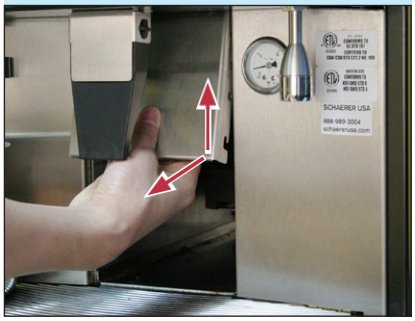
- Press the icon to go into the Service Menu.
- In some configurations, this icon may be hidden. If hidden, press and hold the same area (bottom left corner) for 3-5 seconds. Service menu will appear.

4. ▶

- Select “Cleaning”.
- Immediately remove grounds bin **within 6 seconds**. Empty coffee grounds into trash can. Wash, rinse, sanitize bin and set aside.

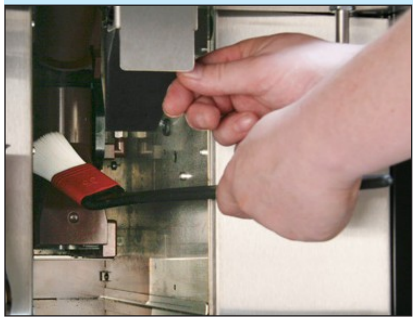
If grounds bin is not removed within 7 seconds, the machine will return to normal operating mode. If this happens, repeat step 3 and 4.

5. ▶



- Remove metal shield above grounds bin and set aside.

6. ▶



- Use large cleaning brush to wipe coffee grounds from brew unit and surrounding areas into drip tray. Do not touch brew unit or any other parts of inside area with your hands.

7. ▶

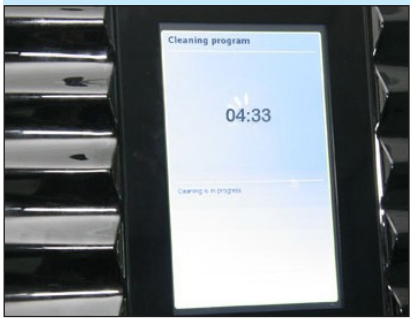
- Put back metal shield and slide coffee grounds bin back into place.

8. ▶

- Lift dome lid and drop in one Schaerer cleaning tablet. Close lid after dropping tablet.
- Press “OK” on the screen.

Note: Dome lid is located behind front center hopper for 3 grinder machine configuration.

9. ▶



10. ▶

11. ■