



Series F11 service manual

Please read the instructions carefully, and keep it well.

Applied model :

F12、 F12 Big、 F12 Plus、 F12 Big Plus ;

F11、 F11 Big、 F11 Plus、 F11 Big Plus ;

F09、 F09 Big、 F09 Plus、 F09 Big Plus ;

F7+11、 F7+11 Big、 F7+11 Plus、 F7+11 Big Plus ;

There is difference between picture and products, because of the upgrading of products. Please refer to the actual products.

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2 Safety

2.1 Safety Instructions

2.1.1 Consumer's risk

⚠ Caution You may get hurt if instructions are not well followed up.

- ◆ Please must observe the following points:
 - ❖ Please read the instructions carefully before you using it.
 - ❖ Don't operate it, if the machine is not running normal or damage.
 - ❖ Changing the safety device is not permitted.
 - ❖ Touching the high temperature components is not permitted.
 - ❖ This equipment can be used by children of 8 years and above, and by persons with reduced physical, sensory or mental abilities or of a lesser level of experience and knowledge when they are supervised or have been trained in the safe use of the equipment.
 - ❖ Children are not permitted to play with the equipment. Cleaning and usage service is only permitted to be carried out by children when under supervision of an adult.
 - ❖ Children are not permitted to cleaning and maintenance machine.
 - ❖ Machine is installed at obvious site.
 - ❖ Children are not permitted to play with the equipment. Cleaning and user service is only permitted to be carried out by children when under supervision.
 - ❖ Beans hopper only for bean, power hopper only for power, manual outlet only for cleaning tablets.

⚠ Caution Incorrect using the electronic device can result in shocking.

- ◆ Please read the following points:
 - ❖ There is a danger of death if live parts are touched.
 - ❖ The machine must be connected with fuse-protected circuit (Connection by selective leakage protection).
 - ❖ Observe the corresponding low voltage and local and regional safety regulations.
 - ❖ The connection must obey the regulation to avoid the electronic.
 - ❖ The supply voltage must match the details on the nameplate.
 - ❖ Don't touch live parts.
 - ❖ Power off while maintenance, make the machine disconnected the machine of the power.
 - ❖ Cable replacement only permitted to the personnel authorized by the manufacturer.

⚠ Caution Drinks additives and residues cause allergies.


- ◆ Please must observe the following points:
 - ❖ Check the additives in case of allergy listed on the display under self-service operation.
 - ❖ Check the additives can cause allergic when machine self-service operated by professional person.


⚠ Caution There is risk of getting poisoned after having cleaning tablets.

- ◆ Please must observe the following points:
 - ❖ Always keep cleaning tablets out of children and people not authorized by manufacturer.
 - ❖ Don't eat cleaning tablets.

- ❖ Don't mix the cleaning tablets with other chemicals and acid material.
- ❖ Don't add cleaning tablets into milk container.
- ❖ Don't keep the cleaning tablets in a water tank(Inside or outside).
- ❖ The cleaning tablets and decalcifying agent should only be used under regulations (Please see the label).
- ❖ Don't eat and drink while using cleaning tablets.
- ❖ Keep a good ventilation and exhaustion.
- ❖ Wear gloves.
- ❖ Wash hands immediately.

 **Caution with burns** There is risk of getting burned with the drinks, keep hands far away with steam outlet.

 **Caution with burns** High temperature on the outlet and brewing system. Only touch the handle. Only rinse the brewing system after cooling.

 **Caution with burns** There is a risk of being crushed by touching any of the active parts. Don't put your hand into beans hopper, powder hopper and brewing system when machine working.

2. 1. 2 Machine damage

 **Caution** The machine may cause impurities and damages if it is not properly installed.

- ◆ Please must observe the following points:
 - ❖ If the hygiene is required less than 5°dKH, please install water filter, if not, the machine would be damaged.
 - ❖ Turn off tap running(Machine with fixed water tube connection), then close the switch or disconnect plug.
 - ❖ Observe the corresponding low voltage and local and regional safety regulations.
 - ❖ Please power off while water filling, otherwise the boil device will be damaged.
 - ❖ The check valve should be installed in the tube, in case of the water leakage by the tube crack.
 - ❖ If the machine has not been used for more than one week, cleaning must be carried out before the next operation.
 - ❖ Prevent coffee machines from being affected by the bad weather.
 - ❖ Removing fault by experts approved by the manufacturer.
 - ❖ Please use the original accessories with our coffee machine.
 - ❖ Please contact with our custom service department to do the replacement or maintenance.
 - ❖ Washing the machine with water or steam is not permitted.
 - ❖ The device is not suitable for positioning on a surface where water jet may be used.
 - ❖ Beans hopper only for beans, power hopper only for power, manual outlet only for tablets.
 - ❖ Frozen coffee bean is not permitted, otherwise the brewing device would be sticky.
 - ❖ If transport the machine & spare parts under -10°C, there is risk of being short circuit and damaged by frozen water.
 - ❖ Only use new tube set!

3 Structure

3.1 Overview (The picture is for F11 Big Plus)

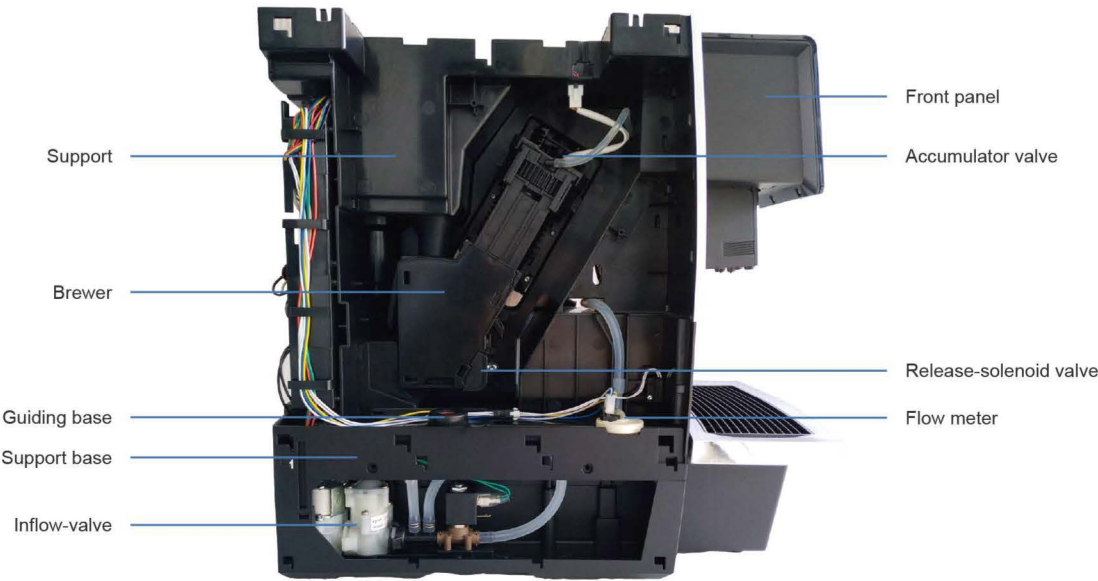
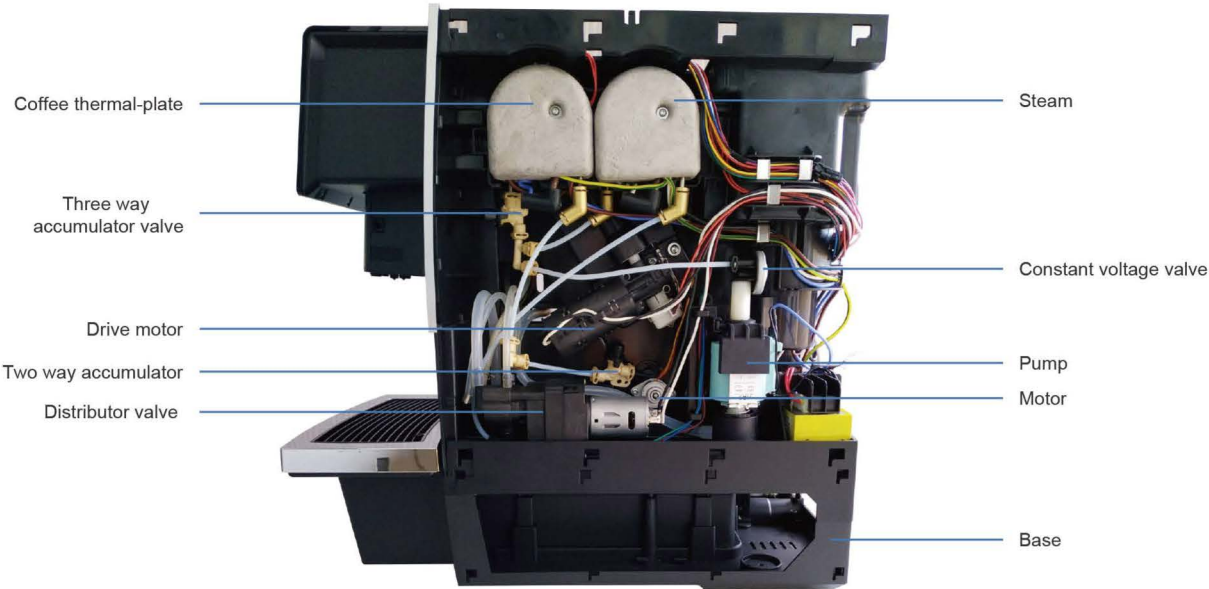
Coffee machine
(Front side)

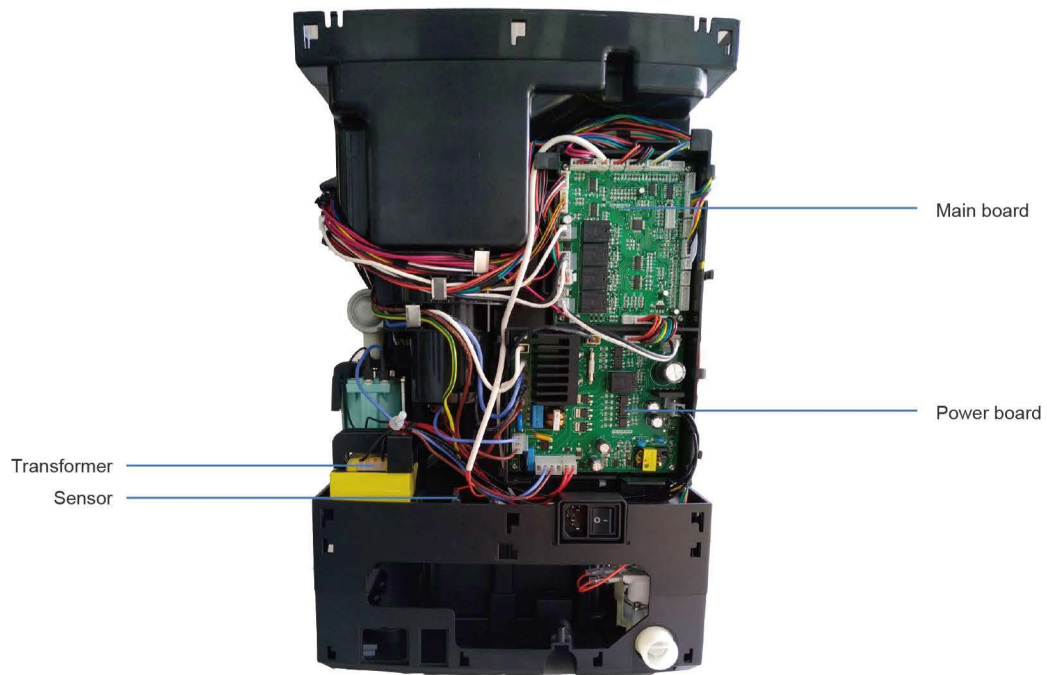
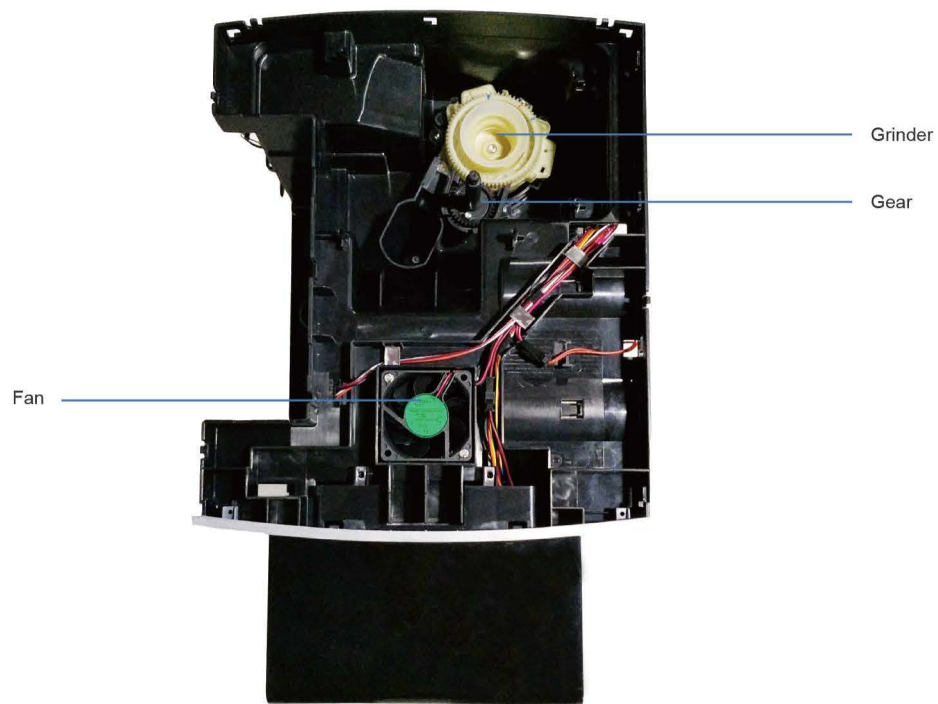


Coffee machine
(Back side)



3.2 Description of internal components

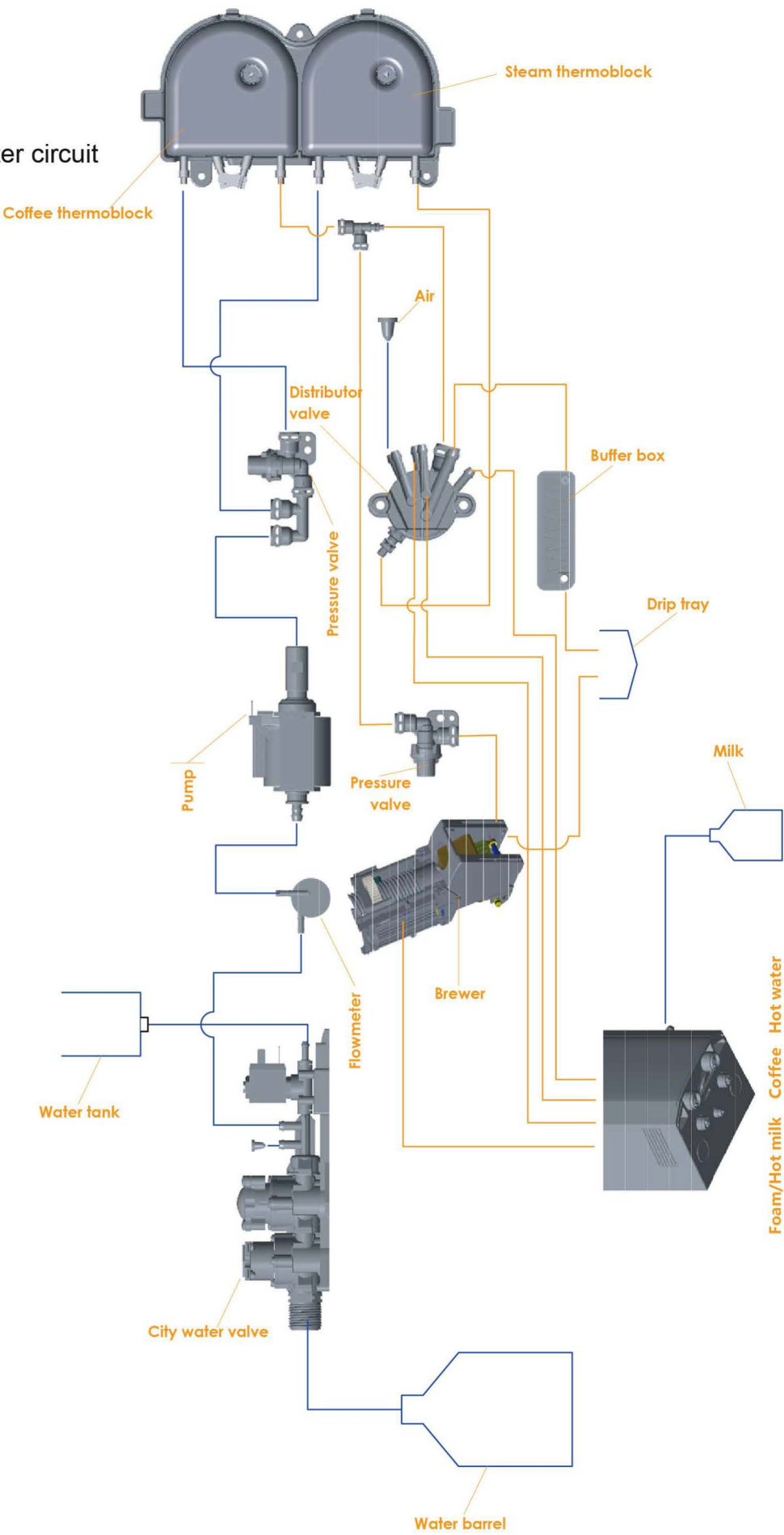




4 Circuit overview

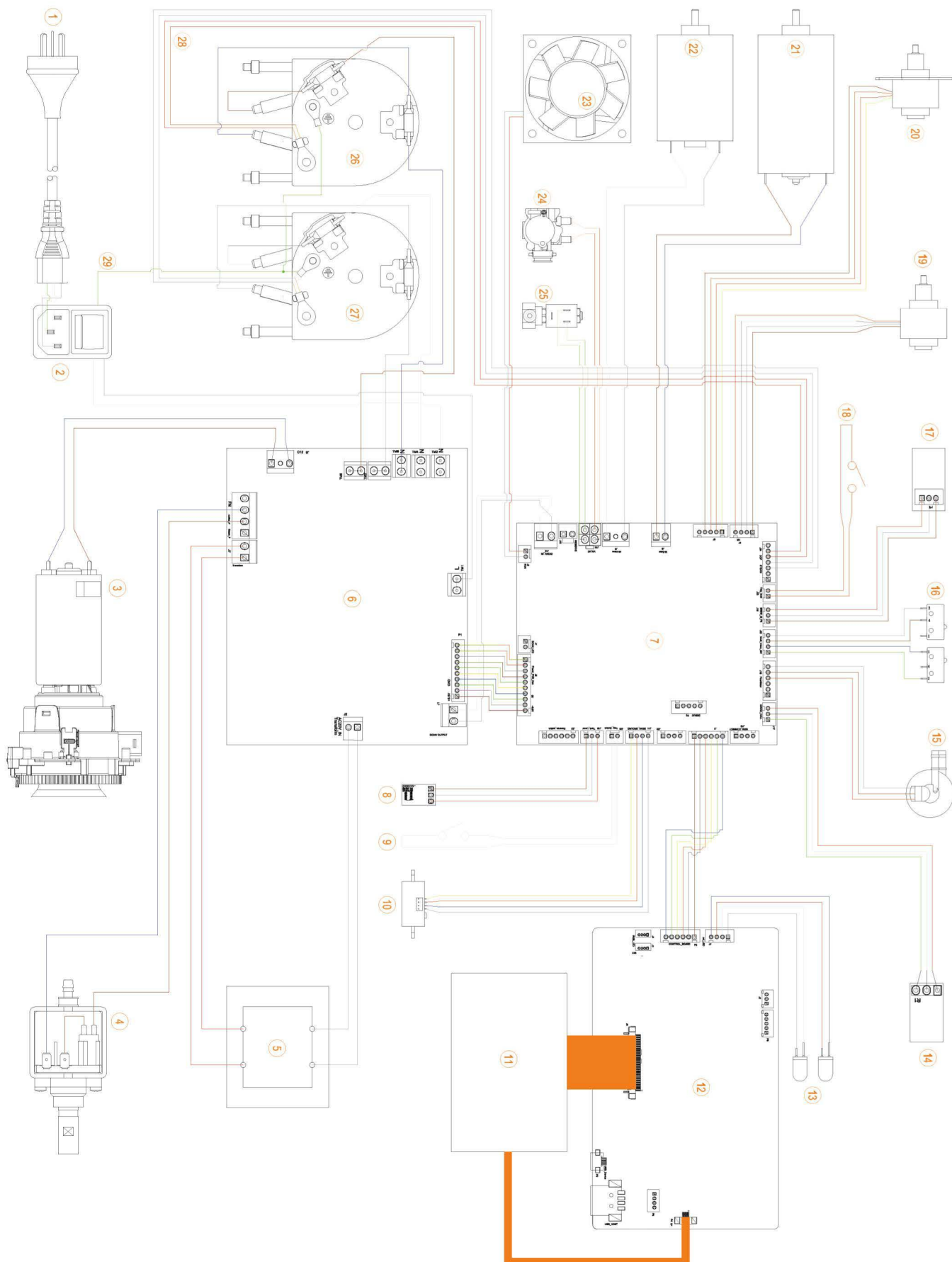
4. 1 Water circuit

4. 1. 1 F11 Big Plus water circuit



4.2 Schematic circuit

4.2.1 Mainboard & HMI board schematic circuit



1. Power line
2. Power switch
3. Grinder motor
4. Pump
5. Tranformaer
6. Power PCBA
7. Main control PCBA
8. PCBA for water sensor
9. Reed Sensor
10. Sensor for coffee grounds
11. Touch screen
12. HMI PCBA
13. LED light
14. Sersor for grinder
15. Flowmeter
16. Distributor valve switch
17. Rotary encoder
18. Sensor for drip tray water
19. Stepper motor
20. Stepper motor
21. Drive motor
22. Distributor valve
23. Fan
24. Solenoid valve
25. Solenoid valve
26. Coffee thermoblock
27. Steam thermoblock
28. NTC/NTC
29. Ground wire

5 Specification

5.1 Capacity

◆ Hourly output on DIN18873-2:

Model	F11		F12	
Advised daily output	100 Cups		100 Cups	
Hourly output	Single	Double	Single	Double
Espresso	70	100	120	180
Americano	50	-	80	-
Cappuccino	50	60	80	100
Hourly hot water output	15L		25L	
Water tank capacity	Small Water Tank : 2L / Big Water Tank : 8L		Small Water Tank : 2L / Big Water Tank : 8L	
Beans hopper capacity	1000 g		1000g	
Grounds container capacity	Approx. 70 Pcs(Base on 10g/Shot)		Approx. 70 Pcs(Base on 10g/Shot)	

5.2 Technical sheet

Model	F11	F12
Coffee machine	220-240V~ 50/60Hz 1500-1700W	220-240V~ 50/60Hz 2700-3200W
Connection tube set	G3/4'change into G3/8'length1.5M metal tube	G3/4'change into G3/8'length1.5M metal tube
Connection water pressure	Max 600kPa (6Bar)	Max 600kPa (6Bar)
Coffee machine W*D*H	30*50*58cm (Small Water Tank) 41*50*58cm (Big Water Tank)	30*50*58cm (Small Water Tank) 41*50*58cm (Big Water Tank)
Machine N.W	Small Water Tank: 15.5kg / Big Water Tank: 17kg	Small Water Tank: 15.5kg / Big Water Tank: 17kg

6 Screenshot description

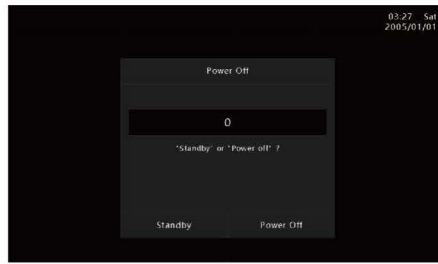
6.1 Drinks home screen



◆ Screenshot description

❖ Touch any pic. process on; press side button to change page; touch shortcut icon to show menu bar.

6.2 Shortcut menu bar



- ◆ Screen Lock
 - ❖ Touch "screen lock", pic. disappeared, count down 15 seconds and so the cleaning, any touch will unlock.
- ◆ Milk Rinse
 - ❖ Touch "milk rinse" the process shows on the screen. (Details on instruction manual)
- ◆ Brewer Rinse
 - ❖ Touch "Brewer Rinse" the process shows on the screen. (Details on instruction manual)
- ◆ Service Manual
 - ❖ Touch "Service Manual", input passcode. (Next process please check below page)
- ◆ Switch off
 - ❖ Touch "switch off", select "stand by" or "switch off". (Next process please check below page)
 - "Stand by" rinsing process starts then inter to stand by mode and the heating system keeps temperature.
 - "Switch off" rinsing process stats then inter to switch off mode and the heating system stops working.
 - Screen off when inter to "stand by" or "switch off" mode ,touch the screen to recover ,equipment and rinse process starts.

7 Service manual

7.1 Method of entry

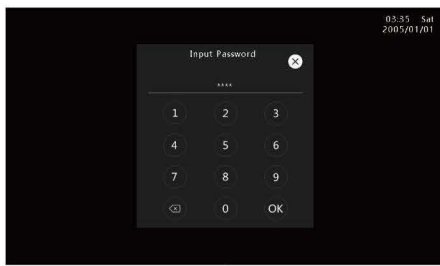
Step 1: Touch the short icon.



Step 2: Select "service manual".



Step 3: (As below pic.)Input password and press ok. (default password 1609)



Step 4: Return back to service main manual.



7.2 Maintenance

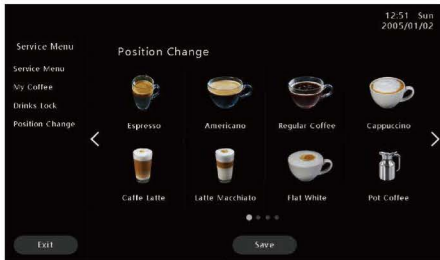


- ◆ Brewer deep rinse
 - ❖ Touch “brewer deep rinse” continue to next step. (Details on instruction manual)
 - The function is locked will open soon.
- ◆ Milk deep clean
 - ❖ Touch “milk deep clean ”continue to next step. (Details on instruction manual)
 - The function is locked will open soon.
- ◆ Descaling
 - ❖ Touch ”descaling” continue to next step. (Details on instruction manual)
 - The function is locked will open soon.
- ◆ Water draining
 - ❖ Touch “water draining” continue to next step. (Details on instruction manual)
 - The function is locked will open soon.

7.3 Drinks setting

7.3.1 Drinks setting

Drinks setting: The drinks setting data can be modified. (For example: espresso)



◆ Grounds

❖ Grounds setting range from 1~5, details as below:

- The test data based on factory settled grounds 2.4g/second, just for reference and if have difference should accordingly to actual situation..

Grinder	1		2		3		4		5	
	Time(s)	Weight(g)	Time(s)	Weight(g)	Time(s)	Weight(g)	Time(s)	Weight(g)	Time(s)	Weight(g)
Double grinder	1.2	6~8	1.7	8~10	2.1	10~12	2.5	12~14	3.1	14~16
Single grinder	2.4	6~8	3.4	8~10	4.2	10~12	5.0	12~14	6.2	14~16

◆ Strength (%)

- ❖ The function is locked will open soon.

◆ Coffee (ml)

- ❖ Unit ml, select range on screen.

◆ Grinder

- ❖ Selection: left, right and both.
 - Example: select left, only left grinder works.

◆ Temp.level

- ❖ Range: low/mid/high.
 - The function is locked will open soon.

◆ Brew pressure

- ❖ The function is locked will open soon.

◆ Pre-brewing (s)

- ❖ Coffee powder soaked time unit “second”, range 1~5.

◆ Test

- ❖ After data changes, touch” test” and make one drink.

◆ Save

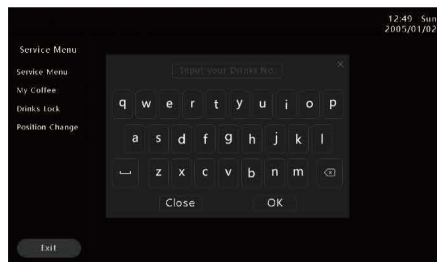
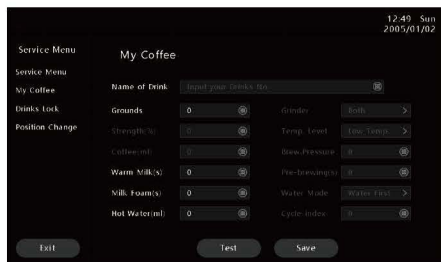
- ❖ After changes save the data.

◆ Exit

- ❖ Touch exit and return back to previous menu.

7.3.2 My coffee

Save the setting and name as personal like.



- ◆ Name of drink
 - ❖ Create a name and save.
- ◆ Grinds
 - ❖ See 7.3.1.
- ◆ Strength (%)
 - ❖ See 7.3.1.
- ◆ Coffee (ml)
 - ❖ See 7.3.1.
- ◆ Warm milk (s)
 - ❖ The unit is second, select range on display.
- ◆ Milk foam (ml)
 - ❖ The unit is second, select range on display.
- ◆ Hot water (ml)
 - ❖ The unit is ml, select range on display.
- ◆ Grinder
 - ❖ See 7.3.1.
- ◆ Temp. level
 - ❖ See 7.3.1.
- ◆ Brew pressure
 - ❖ See 7.3.1.
- ◆ Pre-brewing (s)
 - ❖ See 7.3.1.
- ◆ Water mode
 - ❖ Americano and regular can change the coffee or water order, water first, coffee first, both.
 - For example: select water first, making drinks the water comes first then coffee.
- ◆ Cycle-index
 - ❖ Making pot coffee cycle time, range 1~5.

7. 3. 3 Drinks lock

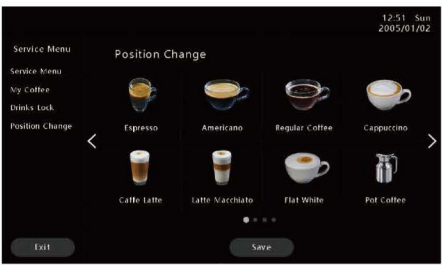
Touch the button and lock the drinks, save data.

- ◆ After drink lock, back to main menu and see the color is grey, touch the pic. no working.



7. 3. 4 Position change

Touch any two drinks pic. the position changes, save the data.

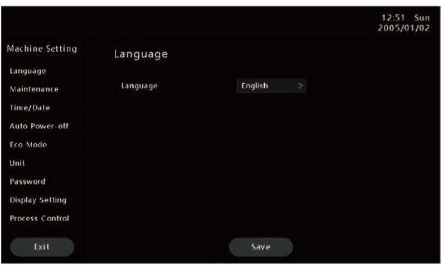


7. 4 Machine setting

7. 4. 1 Language

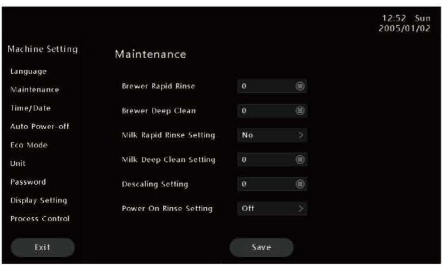
Select the language, save data.

- ◆ For example, select Chinese and the system language is chinese.



7. 4. 2 Maintenance

Maintenance setting data, save the record.



- ◆ Brewer rapid rinse
 - ❖ After settled cups the equipment will do brewer rapid rinse automatically, unit cup. This function will open soon
 - For example. settled100, after 100 drinks the equipment will do brewer rapid rinse.
- ◆ Brewer deep clean
 - ❖ After settled cups, equipment will have warning page to do deep clean, unit cup. This function will open soon.
 - For example: settled 2000, after 2000drinks the equipment will have warning page to do deep clean.
- ◆ Rapid rinse (milk frother)
 - ❖ Select range: no/immediately /5 mins/10 mins/15mins/20 mins.
 - Select no, no mater how many cups the equipment won't rinse. Have rapid rinse only switch on/off.
 - Select immediately, after making milk drinks starts rapid rinse.
 - Select 5 mins, after making milk drinks 5 mins later will do rapid rinse.
- ◆ Deep clean(milk frother)
 - ❖ After settled cups, equipment will have warning page to do deep clean, unit cup. This function will open soon.
- ◆ Descaling
 - ❖ After settled cups ,equipment will have warning page to do descaling, unit cup. This function will open soon.
- ◆ Power on rinse setting
 - ❖ Select if need do rinse once switch on. This function will open soon.

7. 4. 3 Time/Date

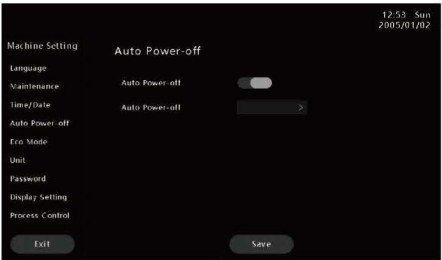
Settle date and time then save data.



- ◆ 12/24
 - ❖ Select 12 or 24 hours.
- ◆ Time
 - ❖ Hour and minutes.
- ◆ Date
 - ❖ Year, month, date.

7. 4. 4 Auto power off

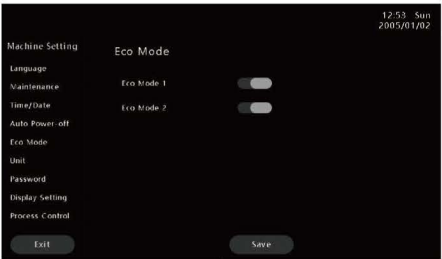
Settle auto power off time and save data.



- ◆ Power off
 - ❖ Function on/off.
- ◆ Power off
 - ❖ Time hour /minute.
 - After saved data, equipment daily automatically power off. Power off if long time no using.

7. 4. 5 Eco mode

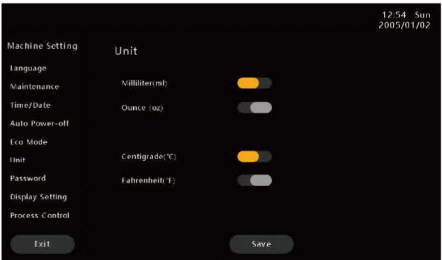
Select on or off and save date.



- ◆ Eco1
 - ❖ Open soon.
- ◆ Eco 2
 - ❖ Open soon.

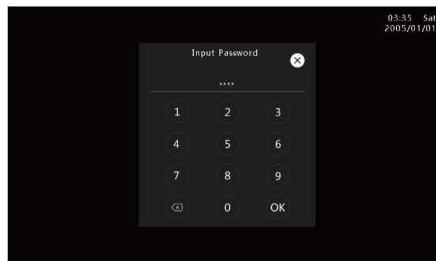
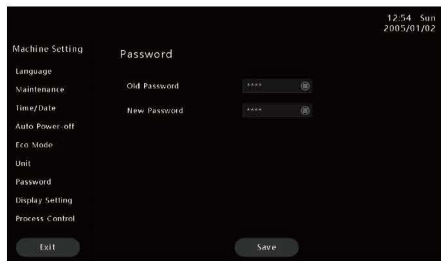
7. 4. 6 Unit

Select the unit and save data.



7. 4. 7 Password

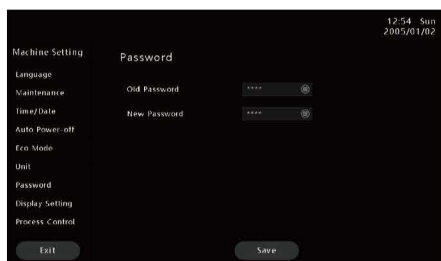
Change the password and save data.



- ◆ Old password
 - ❖ Change the password and save data.
 - Original password is 1609.
- ◆ New password
 - ❖ Input the new password, press ok.
 - Password settings range: any combination of four digits.

7. 4. 8 Display setting

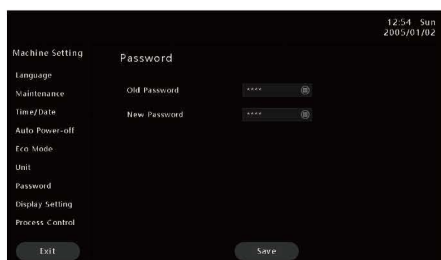
Settle and save the data.



- ◆ Backlight
 - ❖ Open soon.
- ◆ Brightness
 - ❖ Open soon.
- ◆ Contrast
 - ❖ Open soon.

7. 4. 9 Process control

This button on/off the function on/off.

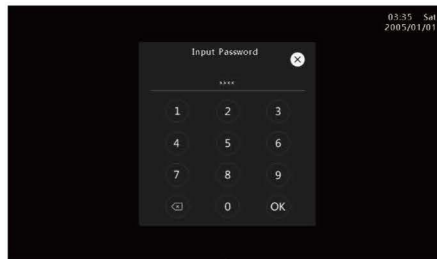


- ◆ If this function off, on the display.

7.5 Eng. setting

Touch engineer setting, input passcode and press OK.

- ◆ You can enter engineer code, it depends on current time, for example if current time is 13:05 the engineer code is 0405, hour number addition, minute number addition.



7.5.1 Grounds Cal.

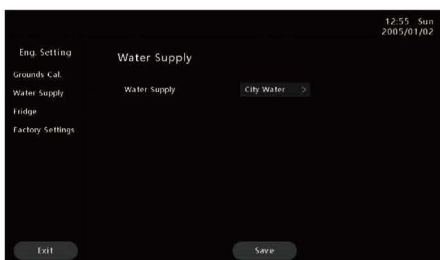
Adjust grinding fine or rough effect and grounds cal., save data.

- ◆ Open soon.



7.5.2 Water supply

Select water supply, save and restart.



- ◆ Water supply
 - ❖ Select way of water supply: water tank, water barrel, city water, water purifier.
 - For example, select water tank the water supply is water tank.
 - Pay attention, save data, switch off and restart, then it works.

7. 5. 3 Fridge

Select the fridge, save and restart.

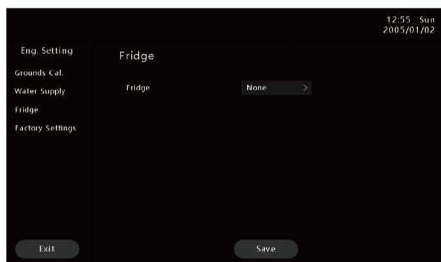


◆ Fridge

- ❖ It can be set whether the coffee machine is equipped with special refrigerator, setting range: Dr.coffee or None.
 - For example: select “Dr. Coffee” means the machine collocate with fridge, it has milk rinse function.
Select no, the machine without fridge and when do milk rinse need follow the display tips, remove tube and insert in drip tray.
 - Pay attention: save and restart the machine, then it works.

7. 5. 4 Factory settings

Reset the data, save and restart, it works.



- ◆ Drinks reset
 - ❖ Touch the button, save and restart, it works.
- ◆ Eng. Setting reset
 - ❖ Touch the button, save and restart, it works.
- ◆ Factory reset
 - ❖ Touch the button, save and restart, it works.
 - After save data, machine starts rinse, switch off and restart, it works.

7. 6 Informatio

7. 6. 1 Total cups

Check the total cups and each drinks total cups.



7. 6. 2 Daily cups

Check the daily cups and each drinks daily cups.

◆ Open soon.



7. 6. 3 Main. records

Check the main. Record and other data.



7. 6. 4 Soft version

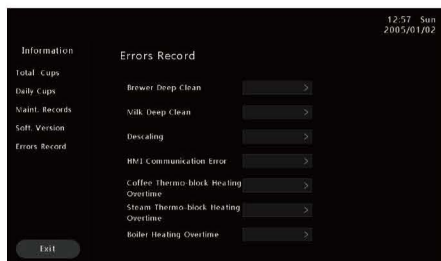
Check the machine information.



- ◆ Mainboard version
 - ❖ Mainboard version no.
- ◆ HMI version
 - ❖ HMI version no.
- ◆ Machine S/N
 - ❖ This machine S/N.

7. 6. 5 Errors record

Check the maintenance and error record.



- ◆ Open soon.

8 Trouble shooting

8.1 Warning display

No.	Warning display	Cause	Solution
1	HMI error	a) Main board and display board connection loose or damaged. b) Electronic device damaged.	a) Restart machine. b) replace HMI unit. (Refer to title 9.2.7)
2	Fridge error	a) Fridge and coffee machine connection loose or damage. b) Electronic device damaged.	a) Restart machine. b) Replace mainboard. (Refer to title 9.2.9)
3	Thermoblock heating overtime	a) 4 minutes after power on, heating value lower than settled value.	a) Restart machine. b) Replace thermoblock. (Refer to title 9.2.12)
4	Coffee thermoblock NTC error	a) Sensor and mainboard connection error. b) Sensor damaged.	a) Restart machine. b) Replace thermoblock. (Refer to title 9.2.12)
5	Steam thermoblock over time	a) 4 minutes after power on, heating value lower than settled value.	a) Restart machine. b) Replace thermoblock. (Refer to title 9.2.12)
6	Steam thermoblock NTC error	a) Sensor and mainboard connection error. b) Sensor damaged.	a) Restart machine. b) Replace thermoblock. (Refer to title 9.2.12)
7	Thermoblock water supply error	a) The coffee flow meter did not detect the signal when starting up. b) Water inlet without water. c) Pump damaged. d) Hydrographic blocked or damaged. e) Brew unit blocked. f) Incorrect connection between control device and flow meter g) Power failure(like control system).	a) Check if the valve is open for external water supply. b) Check brew unit blocked or not. (Refer to title 9.2.11) c) Replace pump. d) Check whether the connection wire of the flowmeter falls off . e) Remove flow meter and check for blockage. (Refer to title 9.2.4) f) Check whether the pump is running normally. (Refer to title 9.2.10)
8	Brewer system error	a) Brew unit is blocked. b) Brew unit motor doesn't run.	a) Check if there is any foreign matter in the brewing device. b) Restart machine. c) Remove the brew unit for inspection and rinse. (Refer to title 9.2.2) d) Replace dive motor.(Refer to title 9.2.13)
9	Distributor valve error	a) Wrong position after after multiple self tests. b) Distributor valve damage.	a) Switch off and re-start machine. b) Replace the distributor valve.(Refer to title 9.2.3)
10	Grinder error	a) The bean grinder is blocked or overloaded. b) The bean grinder damaged. c) Electronic damaged. d) Hall sensor group damaged.	a) After removing the bean grinder for inspection, close the machine and restart it. b) Replace grinder.(Refer to title 9.2.6) c) Replace main board.(Refer to title 9.2.9) d) Replace hall sensor group.(Refer to title 9.2.6)

8.2 Warning not displayed

No.	Warning display	Cause	Solution
1	Start up without display	a) No power. b) No start. c) Power switch is damaged. d) Power fuse blew out.	a) Check if machine is plug in. b) Check if machine is power on. c) Replace power switch. d) Replace the power fuse.
2	No milk	a) Milk tank empty. b) Milk system blocked. c) Milk temperature adjustment valve too tight.	a) Check if milk tank is full. b) Milk system rinse. c) Adjust the valve to loose side.
3	With milk without foam	a) Air inlet blocked. b) Inlet pipe blocked.	a) Dredge the air inlet or replace. b) Check inlet pipe.

9 Disassembly & Assembly

9.1 Tools



slotted screwdriver(dia. 3.2mm)



Plum blossom hexagon screwdriver(T10、T20)



Long nose pliers



Thermometer



Multimeter



Electronic weigher

9.2 General disassembly

9.2.1 Disassemble exterior parts

9.2.1.1 Disassemble big water tank base

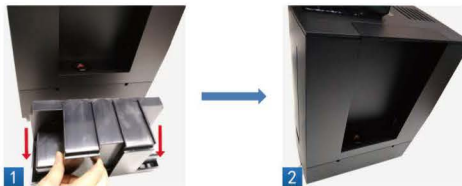
Step 1: First, open the lid of the water tank as shown in the picture, remove the large water tank, and then screw down the fixed screw marked in the red circle.



Step 2: (as shown pic. 1) In the direction of the arrow, remove the cover of the base with both hands from the bottom up, and then screw down the two fixing screws marked by the red circle (as shown pic. 2).



Step 3: Finally (as shown pic. 1) hold the base and take out the base of the large tank outwards, and remove the base of the large tank

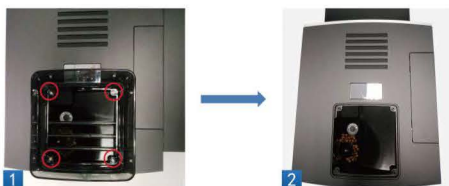


★ Note:

1. Handle with care during disassembly to prevent scratches!

9.2.1.2 Disassemble front panel

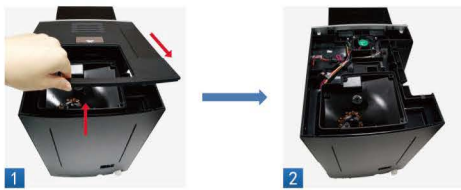
Step 1: First, screw down (as shown pic. 1) the four fixing screws which marked in red, then remove the bean hopper.



Step 2: With a small screwdriver, press the clasp at the position shown in the red arrow (pic. 1 to 5) and loosen the clasps.



Step 3: Hold the upper cover and lift it up, then pull the upper cover out and remove the upper cover.



★ Note:

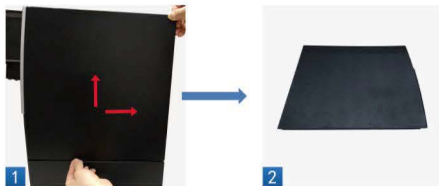
1. Before removing the bean hopper, please make sure no beans inside.
2. Handle lightly to prevent scratches.

9. 2. 1. 3 Disassemble side panel & rear panel

Step 1: Push the back cover up from the bottom, then remove the back cover and remove the back cover.



Step 2: (as shown pic. 1) First push up the right panel from the bottom up, then pull back the right panel and remove it, and remove the right panel.



Step 3: (as shown pic. 1) First, push the left panel from the bottom up, then pull the left panel backward and remove it, and remove the left panel.

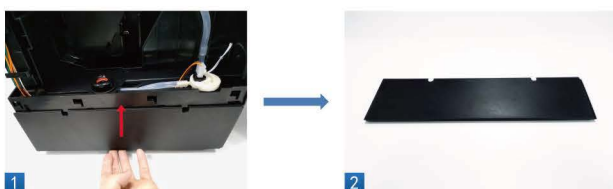


★ Note:

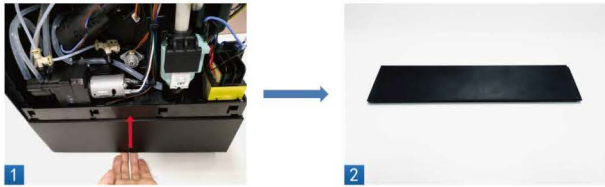
1. Handle with care during disassembly to prevent scratches!

9. 2. 1. 4 Disassemble base side panel & rear panel

Step1: (as shown pic. 1) First push up the left side panel from the bottom, then take it out and remove the left side panel finished.



Step 2: (as shown pic. 1) First push up the right panel of the base from the bottom, then take it out and remove the right panel finished.



Step 3: (as shown pic. 1) First screw down the fixed screw which marked in red, then (as shown pic. 2) press the rear panel from the top down, then take it out and remove it from the outside, and remove the rear panel.

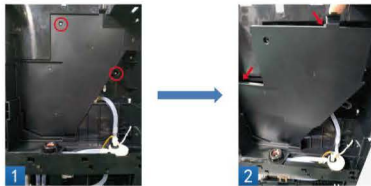


★ Note:

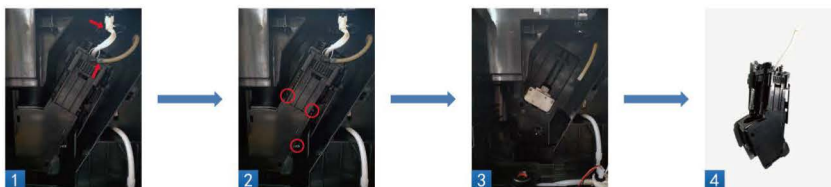
1. Handle with care during disassembly to prevent scratches!

9. 2. 2 Disassemble brew unit

Step 1: Unscrew the fixed screw which marked in red position, press the button o and take out the baffle.



Step 2: Pull out the plug and hose (as shown pic. 1), then unscrew the fixed screw which marked in red position, grab the brewer and pull it out, disassemble brew unit finished.

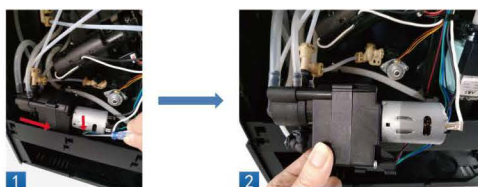


★ Note:

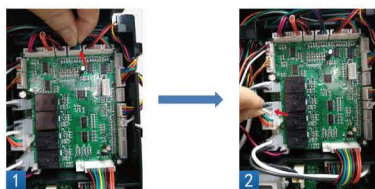
1. Please remove after cooling down to prevent scald!
2. The brewer is made of metal and large weight, handle with two hands and be careful.

9. 2. 3 Disassemble distributor valve

Step 1: First (as shown pic. 1) use screwdriver to press the button which marked with the short arrow, then push out the distributor valve.



Step 2: Unplug the two connector plugs (as shown pic. 1 and 2) which marked by the arrow.



Step 3: Remove the hose and water pipe which marked in red position, and take out the distributor valve, disassemble distributor valve finished.

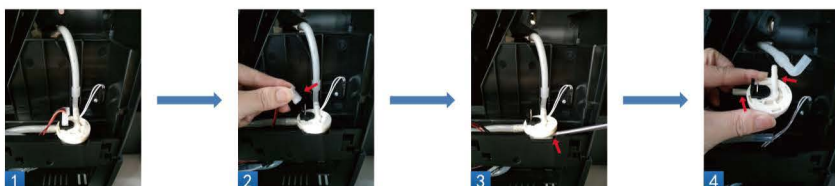


★ Note:

1. Before this operation make sure the plug off.
2. Some remained water in pipe prepare water tank in advance.

9. 2. 4 Disassemble flowmeter

Step: First unplug the flow meter connection, then pull out the flow meter (it can be properly picked up with a screwdriver as shown pic. 3), finally unplug the water pipe and take out the flow meter, disassemble flowmeter finished.

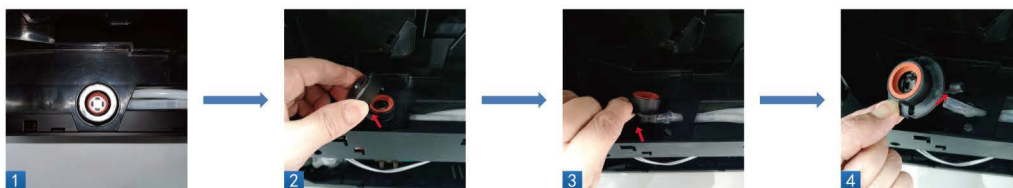


★ Note:

1. Be careful during disassembly to avoid scratching your fingers.
2. Some remained water in pipe prepare water tank in advance.

9. 2. 5 Disassemble water guide seat

Step: First pull out the cover of the water guide seat (which can be properly picked up with a screwdriver), then pull out the water guide seat and the connected water pipe, and remove the water guide seat.



★ Note:

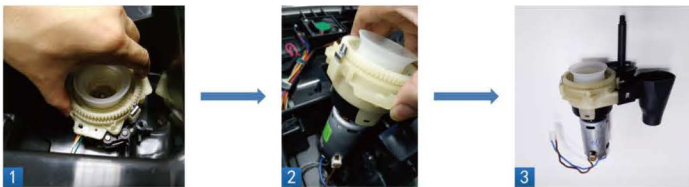
1. Be careful during disassembly to avoid scratching your fingers.
2. Some remained water in pipe prepare water tank in advance.

9. 2. 6 Disassemble grinder group

Step 1: (As shown pic. 1) First remove the bean hopper, then (as shown pic. 2) press hall sensor group which marked in red, and then remove the wiring plug from the power board.



Step 2: (As shown pic. 1 and 2) Grab the grinder group by hand, take out the whole grinder group upward, disassemble grinder group.

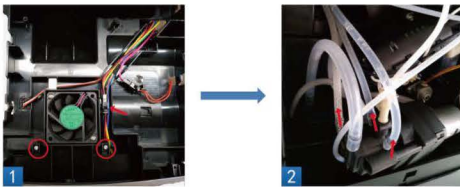


★ Note:

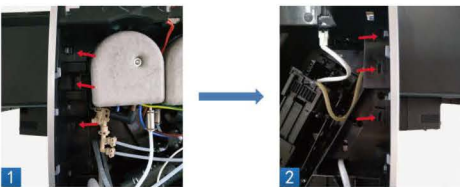
1. Before this operation make sure the plug of.
2. Before remove grinder group ,empty coffee beans.

9. 2. 7 Disassemble front panel group

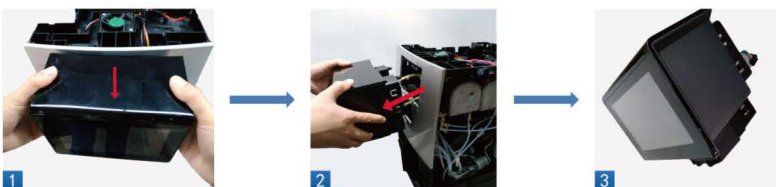
Step 1: First remove plug which located by arrow mark (as shown pic. 1), and then screw down the screws which marked in red (as shown pic. 1), then (as shown pic. 2) pull three pipes out.



Step 2: (As shown pic.1 and 2) Press with one word screwdriver separately. Loose the clasp which positioned by arrows marks.



Step 3 : (As shown pic. 1 and 2) Grab the front panel group with both hands, pull out the whole assembly outwards and remove the front panel group.

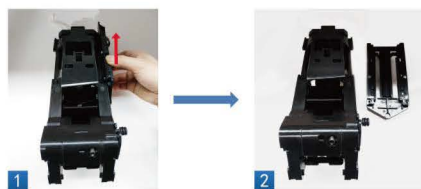


★ Note:

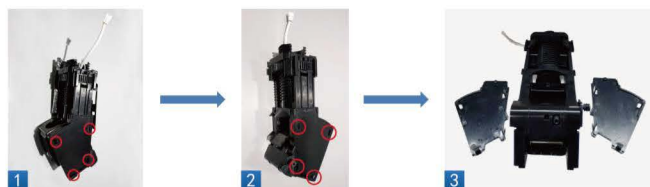
1. The display screen is made of glass. Please handle it gently during disassembly to prevent glass from breaking.

9. 2. 8 Disassemble pressure relief valve set

Step 1: First (as shown pic. 1), hold the gear bracket in the direction showed by the arrow and remove the gear set.



Step 2: Press the eight red rings which marked in red with one word screwdriver separately (as shown pic.1, 2), I- oosen the buckle and remove the two side plates (as shown in fig.3).



Step 3: Hold the pressure relief valve set by hand, pull out the pressure relief valve set outwards and remove it.

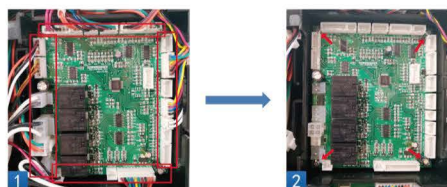


★ Note:

1. Please remove after cooling down to prevent scald.

9. 2. 9 Disassemble the main control panel.

Step: First remove all plugs from the power panel, then remove the five screws, finally remove the power panel.

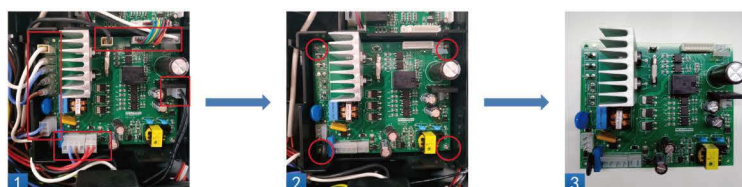


★ Note:

1. Please unplug the coffee machine before doing this operation.
2. Before unplugging the connection plug, please press the clasp first and unplug it to prevent the terminal broken.

9. 2. 10 Disassemble the power panel

Step : First remove all plugs from the power panel, then remove the five screws, finally remove the power panel.



★Note:

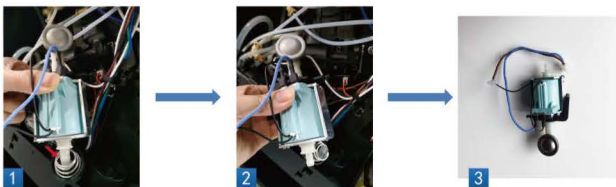
1. Please unplug the coffee machine before doing this operation.
2. Before unplugging the connection plug, please press the clasp first and unplug it to prevent the terminal broken.

9. 2. 11 Disassemble pump group

Step 1: First, remove the plug (as shown pic.1) indicated by the arrows, then take off (as shown pic. 2) the small spring pull out pipe clamp, then pull out the water pump stator (as shown pic. 3).



Step 2: According to the position shown by the arrow (as shown pic. 1), pull out the silicone water pipe connected to the water pump, and finally take out the water pump group outwards and remove the water pump group.

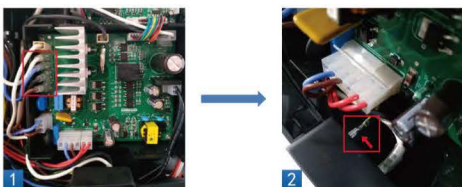


★ Note:

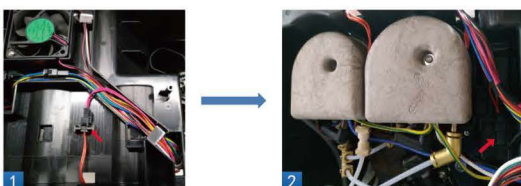
1. Please unplug the coffee machine before doing this operation.
2. Before unplugging the connection plug, please press the clasp first and unplug it to prevent the terminal broken.

9. 2. 12 Disassemble thermos-block group

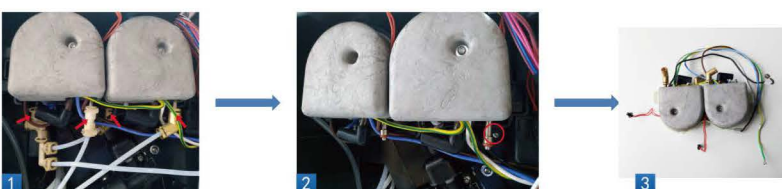
Step 1: First pull out the connecting plug which marked in red (as shown pic.1 and fig.2).



Step 2: then pull out the connecting plug which marked by the arrow (as shown pic. 1 and 2).



Step 3: Unplug the four pipe joints which marked by the arrow, and finally screw the fixed screw at the position which marked in red. Remove the heating panel group and complete the disassembly.

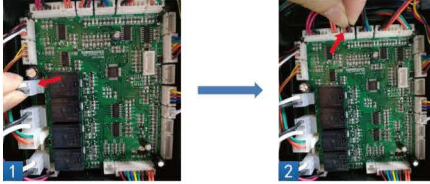


★ Note:

1. Please unplug the coffee machine before doing this operation.
2. Some remained water in pipe prepare water tank in advance.
3. Please remove after cooling down to prevent scald.

9. 2. 13 Disassemble drive motor group

Step 1: First pull out the connector plug which marked by the arrow (as shown pic. 1 & 2).



Step 2: Then unscrew the two fixing screws which marked in red(as shown in figure 1). Then grab the driving motor, take it out and remove the driving motor.

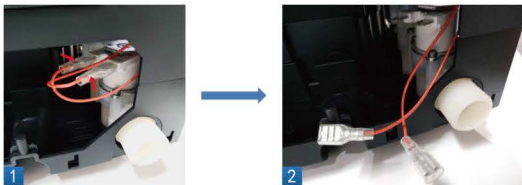


★ Note:

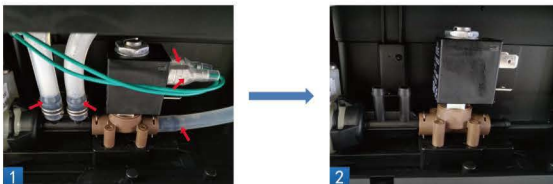
1. Please unplug the coffee machine before doing this operation.

9. 2. 14 Disassemble water inlet valve

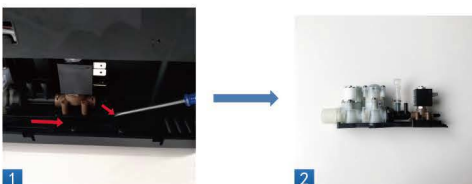
Step 1: First pull out the plug which marked by the arrow (as shown pic. 1).



Step 2: Then pull out the plug and water pipe which marked by the arrow(as shown pic. 1).



Step 3: Finally press the button which marked by the short arrow with a word screwdriver and follow long arrow to push the water inlet valve set to the right.



★ Note:

1. Please unplug the coffee machine before doing this operation.

9. 2. 15 Disassemble accumulator valve group

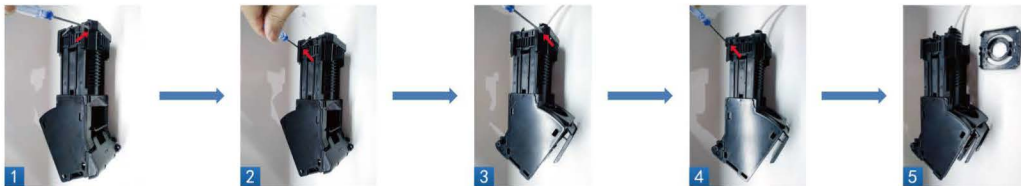
Step 1: First (as shown pic.1) hold the gear support and pull out the gear set in the direction of the arrow.



Step 2 : Hold the scraper bar, gently rotate the hook position counterclockwise, loosen the hook and push the rod upward.



Step 3: Press the buckle at the position shown in the arrow with a one-word screwdriver (as shown pic. 1 ~ 4), loosen all buckles, and remove the upper cover of the brewer.



Step 4 : Hold the fixed seat of the stepping motor by hand, rotate counterclockwise, then pull out the accumulator valve set upward, and remove the accumulator valve set.



★ Note:

1. Please unplug the coffee machine before doing this operation.

10 Maintenance

10.1 Rinse milk foam fother

Step1: Remove the milk tube.



Step 2: Catch the bracket, take off the cover ,pull out the milk foam unit.



Step 3: Take out the connection and silicon spare parts in the milk foam unit for washing.



Step 4: Install back the milk foam unit into machine, cover the cap.



★ Note:

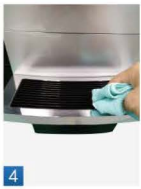
1. Please remove after cooling down to prevent scald.
2. When installing the silicone parts of the milk fother, check carefully whether they are in place. Otherwise, it may not be able to inhale the milk or foam.

10.2 Wipe the coffee machine

Step 1: Clean the coffee machine bean box, appearance and screen: wipe the appearance and screen of the coffee machine with clean, soft and dry cleaning cloth (as shown 1, 2 and 3).



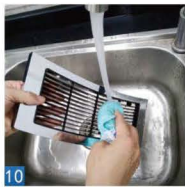
Step 2: Clean drip tray and coffee outlet: use clean wet cloth to wipe drip tray and coffee outlet.



Step 3: Clean the water storage disc: wash and wipe the components with flowing water. Special attention should be paid to the metal sheet marked by the arrow in pic. 8. Be sure to wash the entire sheet of metal and surrounding thoroughly and wipe off the water, otherwise it may lead to false alarm. (as shown. 7, 8, 9, 10);



Step 4: Clean water tank and grounds container: use water to clean water tank and grounds container.



10.3 Brewing system rapid rinse

Step 1: Click on the shortcut icon below the screen tab to the menu.



Step 2: Click the “service menu”, then tab to the next step.



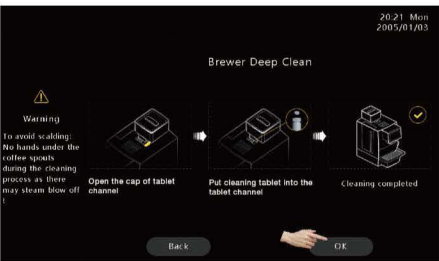
Step 3:Input password, tab to the service menu.(Default password :1609)



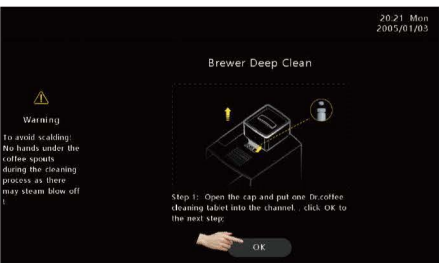
Step 4: Click “Maintenance”,click “Brewer deep clean”tab to the next step.



Step 5: Click “OK”tab to the next step.



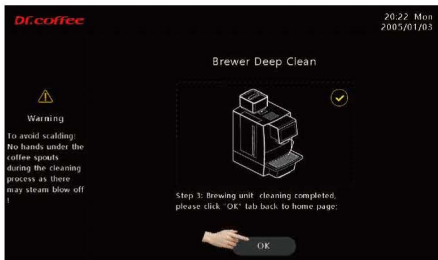
Step 6: Open the cap of tablet channel, put one piece cleaning tablet (2g) into the channel, then click “OK”tab to the next step.



Step 7: “Brewing unit deep clean in process, it may need 30 min, please wait...”



Step 8: Brewing unit deep cleaning is complete, please click “OK” tab back to home page.



✓ Brewing unit deep cleaning is complete, back to home page.

10.4 Milk deep clean

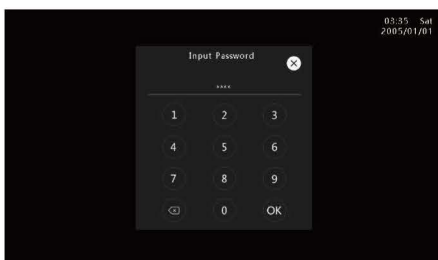
Step 1: Click on the shortcut icon below the screen tab to the menu.



Step 2: Click the “service menu”, then tab to the next step.



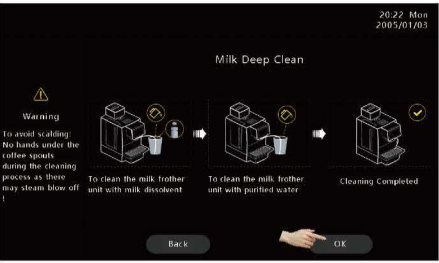
Step 3: Input password, tab to the service menu. (Default password :1609)



Step 4: Click “Maintenance”, click “Milk deep clean” tab to the next step.



Step 5: Click “OK”tab to the next step.



Step 6: Fill water (1L) into the container and put in one Dr. Coffee tablet, connect with milk tube. Click “OK”to the next step.



Step 7: Milk deep clean in process, it may need 5 min, please wait...



Step 8: Clean up the container under faucet, fill up water and connect milk tube. Please click “OK”tab to the next step.



Step 9: Milk deep cleaning in process, it may need 1 min, please wait...



Step 10: Milk deep clean is complete, please click“OK”tab back to home page.



✓ Milk deep clean is complete, back to home page.

10.5 Descaling

Step 1: Click on the shortcut icon below the screen tab to the menu.



Step 2: Click “Service menu”tab to the next step.



Step 3:Input password, tab to the service menu.(Default password :1609)



Step 4: Click “Maintenance, click “Descaling” tab to the next step.



Step 5: Click “OK” tab to the next step.



Step 6: Open the door fill the water tank up to approx 2L, put one bag descaling powder (20g) into the tank, re-install the tank, then click “OK” tab to the next step.



Step 7: Descaling in process, it may need 45 min...



Step 8: Fill up the tank with water after cleaning and re-install the tank, please click “OK” to the next step.



Step 9: Descaling in process, it may need 5min, please wait...



Step 10: Descaling completed, please click “OK” tab back to home page.



✓ Descaling is complete, back to home page.

10.6 Water draining

Step 1: Click the icon shortcuts at lower-left corner of the display.



Step 2: Click “Service menu” tab to the next step.



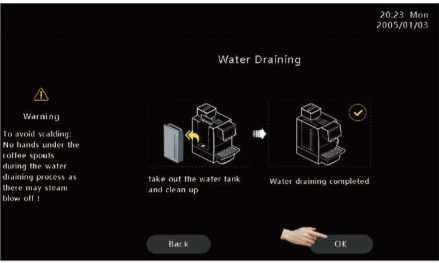
Step 3: Input password, tab to the service menu.(Default password :1609)



Step 4: Click “Maintenance, click “Water draining” tab to the next step.



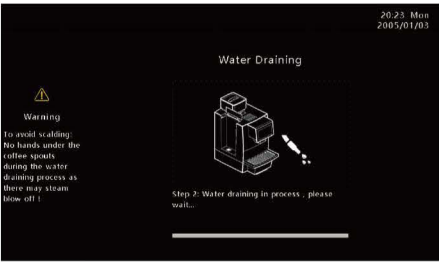
Step 5: Click “OK” tab to the next step.



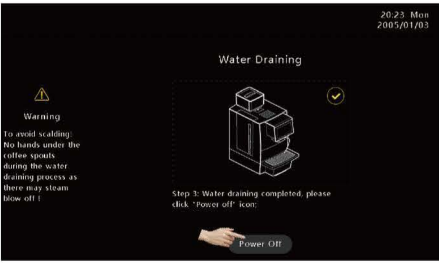
Step 6: Take out the water tank and clean up, please click “OK” tab to the next step.



Step 7: Water draining in process, please wait...



Step 8: Water draining is completed, please click “Power off” icon



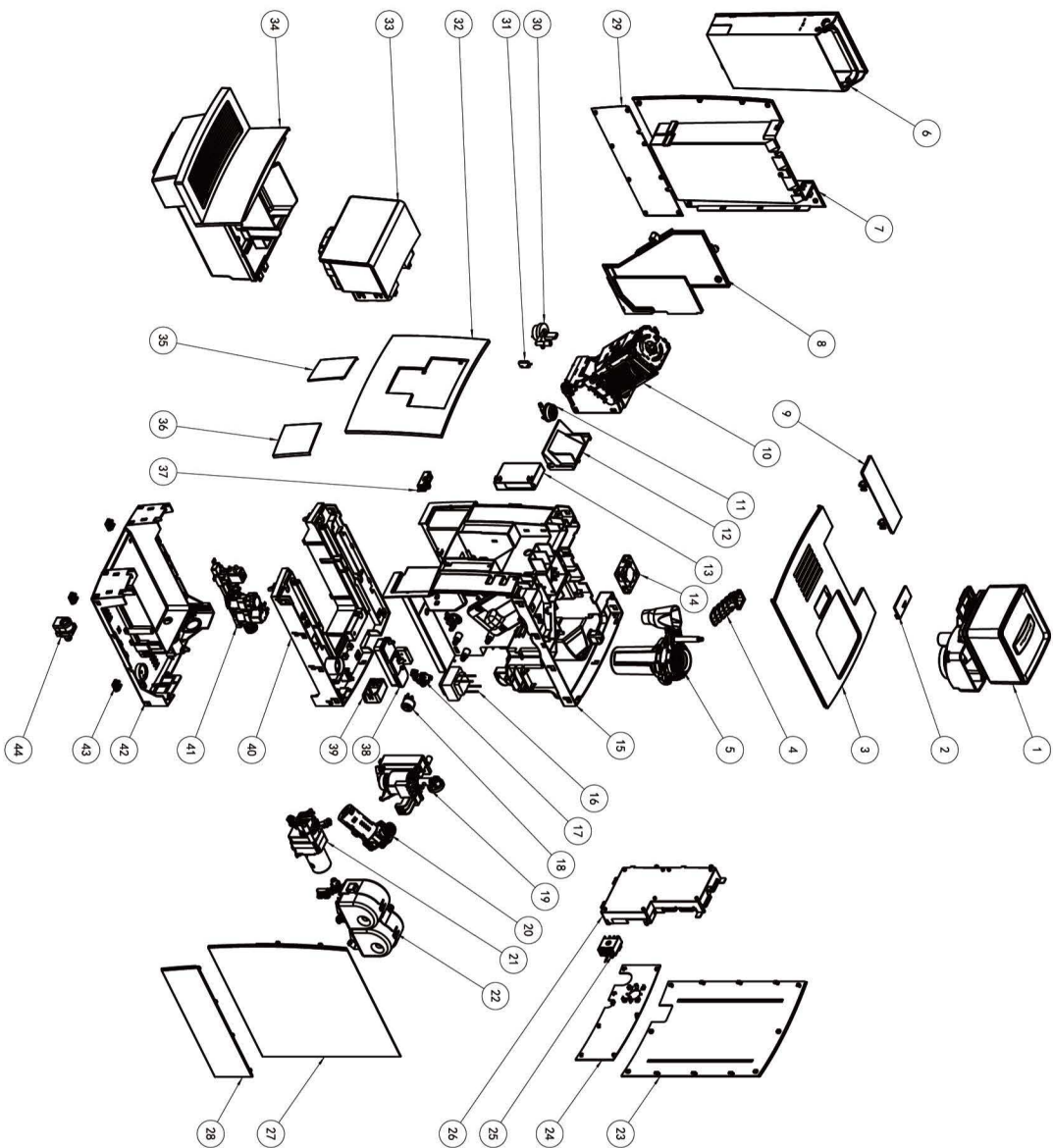
✓ Water draining is completed, power off.

11 Daily using and maintenance attention

- ◆ No any water in the beans hopper and powder hopper.
- ◆ Don't open the door, take out ground container, drip tray, water tank and any other spare parts, when machine working.
- ◆ Water tank only for cold and pure water, hot water and ice water is not permitted.
- ◆ The half roasted beans and beans with less oil for suggesting. The oily beans and burned beans are not for suggesting.
- ◆ Attention with burns. Don't touch the outlet, when the drink in process.
- ◆ The brush and cleaning agent are not permitted. In case of machine damaging, please clean machine with soft cloth.
- ◆ Water and the powder must be lower than the MAX line. If there is no MAX line, please pour water and powder about 8 full.
- ◆ Don't power off, when the machine is drink making, self-testing, cleaning automatically.
- ◆ Adjust the outlet height with the cups.
- ◆ Power off with correct steps: Please click the "Power off", machine rinse automatically. Rinse is completed, the display light off. Push the power button. Please unplug it.
- ◆ Please clean the ground container and waste water barrel.
- ◆ To make sure the good quality, we suggest clean water tank and change water daily.
- ◆ Don't use machine, when the tap water is stopped. (If the machine supplied with tap water)

12 Explode drawing

12.1 F11explord drawing



INDEX	ENG. NO.	ENGLISH NAME	中文名称	QTY.	MATERIAL DESCRIPTION
44	8S10149	Drain connection	排水接头	1	PPH
43	8S20016	Rubber foot	脚垫	4	3500U 80° ±5
42	8S10026	Base	大底座	1	Cr1Ni1 / A8S 757
41	7NM0019	Inflow valve group	进水阀组	1	
40	8S10025	Holder fix base	主体支架支撑座	1	Cr1Ni1 / A8S 757
39	7NM0024	Power switch	电源开关	1	
38	7NM0021	Buffer box	缓冲槽	1	
37	7NM0020	Powder sensor	透粉感应组	1	
36	8S10023	Base-front cover-R	底座前右盖板	1	Cr1Ni1 / A8S 757
35	8S10022	Base-front cover-L	底座前左盖板	1	Cr1Ni1 / A8S 757
34	7NM0004	Water storage	蓄水盘组	1	
33	7NM0005	LCD group	前面板组	1	
32	8S10021	Body-front cover-J	支前左上盖板	1	Cr1Ni1 / PW 957 ASA
31	8S20013	Humid sensor	干湿度管	1	
30	8S20017	Flowmeter	流量计	1	DEMECA # 1, 2ma 922-922 / 8270
29	8S10016	Base-left cover	底座左盖板	1	Cr1Ni1 / A8S 757
28	8S10017	Base-right cover	底座右盖板	1	Cr1Ni1 / A8S 757
27	8S10020	Body-right cover	支架右盖板	1	Cr1Ni1 / PW 957 ASA
26	7NM0006	Power-PIB	主控板组	1	
25	7NM0018	Switch valve	转换阀组	1	
24	8S10018	Base-back cover	底座后盖	1	Cr1Ni1 / A8S 757
23	8S10019	Body-back cover	支架后盖	1	Cr1Ni1 / PW 957 ASA
22	7NM0007	Thermoblock group	电热盘组	1	
21	7NM0011	Dispenser valve	分向阀组	1	
20	7NM0009	Drive motor group	传动组	1	
19	7NM0013	Bump group	水锤组	1	
18	8S20014	Stepper Motor	步进电机	1	DC24V, 输出力50N 250V7-402
17	7NM0022	Dispenser valve 2M	两通直阀	2	
16	8S20016	Transformer	变压器	1	220VAC 50HZ-PVAC / 15 5WAC
15	8S10024	Body holder	主体支架	1	Cr1Ni1 / A8S 757
14	8S20019	FIN	风翅	1	
13	7NM0023	4S module	4S模块	1	
12	8S10142	Brewer baffle	咖啡筛网板	1	Cr1Ni1 / A8S 757
11	7NM0014	Water guide base	导水座	1	
10	7NM0008	Brewer group	冲泡器组	1	
9	8S10006	Small tank cover	小水箱盖	1	Cr1Ni1 / PW 957 ASA
8	8S10143	Brewer cover	冲泡器盖板	1	Cr1Ni1 / A8S 757
7	8S10010	Body-left cover	支架左盖板	1	Cr1Ni1 / A8S 757
6	7NM0017	Small water tank	小水箱组	1	
5	7NM0010	Grinding vertical	磨豆组	1	
4	8S10006	Tablets pipe	加粉管	1	7PE
3	8S10009	Top cover	上盖	1	Cr1Ni1 / PW 957 ASA
2	8S10004	Coffee Powder cover	粉盖	1	Cr1Ni1 / A8S 757 电镀
1	7NM0001	Bean container	豆仓组	1	

DRAWN Penny

CHECKED

DATE 03-20-18

TITLE F11 (整机)

PT. NO. 7NM0015

ISSUE 1

SHEET 1 of 1

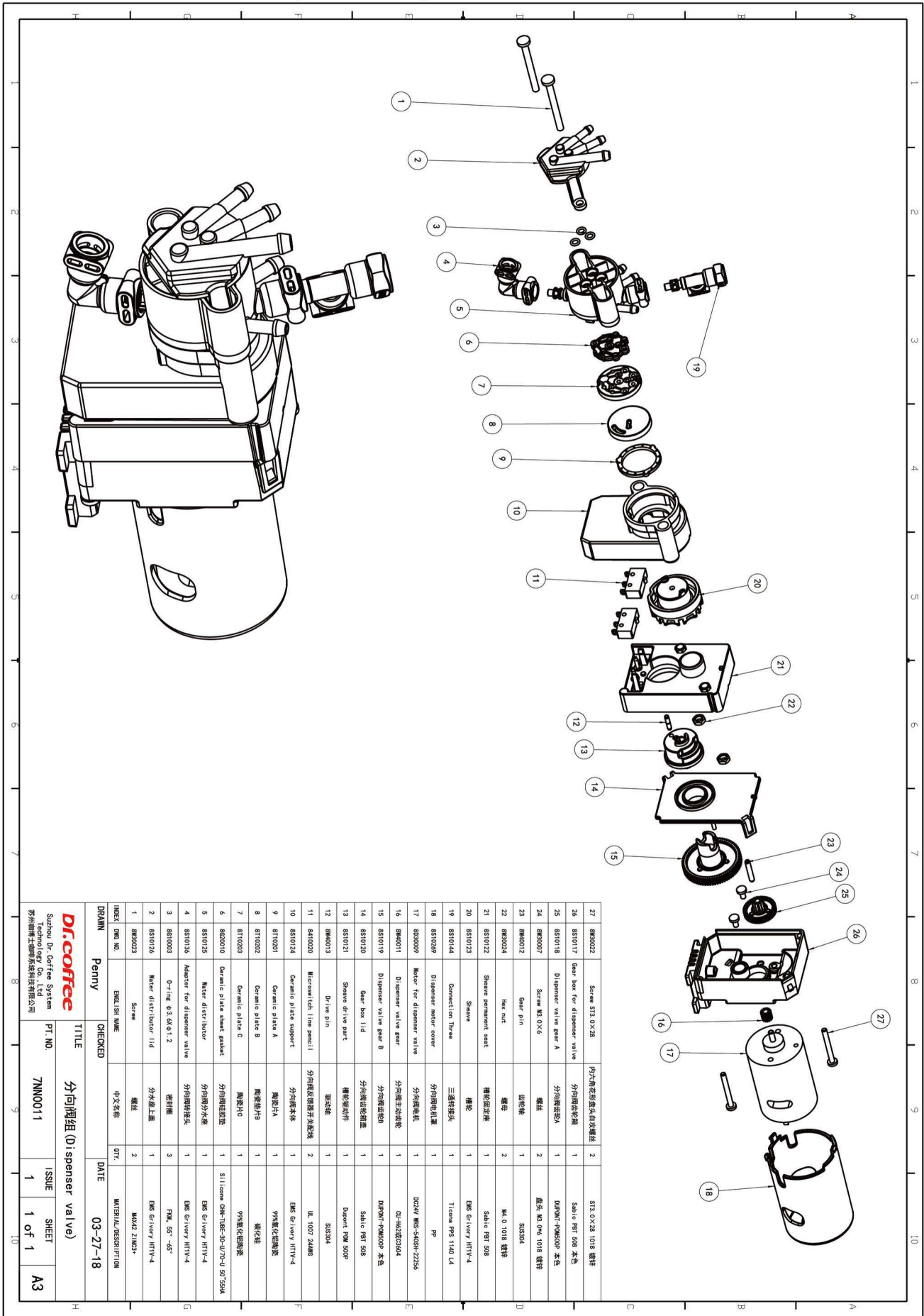
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Dr. coffee
 Suzhou Dr. Coffee System
 Suzhou Dr. Coffee System Co., Ltd.
 苏州咖啡士咖啡系统科技有限公司

PT. NO	TITLE	ISSUE	SHEET
7NN0008	冲泡器组 (Brewer group)	1	1 of 1

INDEX	QTY	UNIT NAME	QTY	DATE
1	1	冲泡器上盖	1	03-27-18
2	1	冲泡器大齿轮	1	
3	1	冲泡器小齿轮	1	
4	1	冲泡器固定板	1	
5	1	冲泡器固定板	1	
6	1	冲泡器固定板	1	
7	1	冲泡器固定板	1	
8	1	冲泡器固定板	1	
9	1	冲泡器固定板	1	
10	1	冲泡器固定板	1	
11	1	冲泡器固定板	1	
12	1	冲泡器固定板	1	
13	1	冲泡器固定板	1	
14	1	冲泡器固定板	1	
15	1	冲泡器固定板	1	
16	1	冲泡器固定板	1	
17	1	冲泡器固定板	1	
18	1	冲泡器固定板	1	
19	1	冲泡器固定板	1	

12. 3 F11 distributor valve explord drawing



Exploring Coffee Secrets

