

Service manual



CoffeeQueen_SV.jpg

Empire Hot COFFEE QUEEN

Your retail dealer

S / EN

Rev. 100426

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We congratulate to your choice of a Coffee Queen coffee machine.

Please read this manual before you take the machine into operation for the first time.

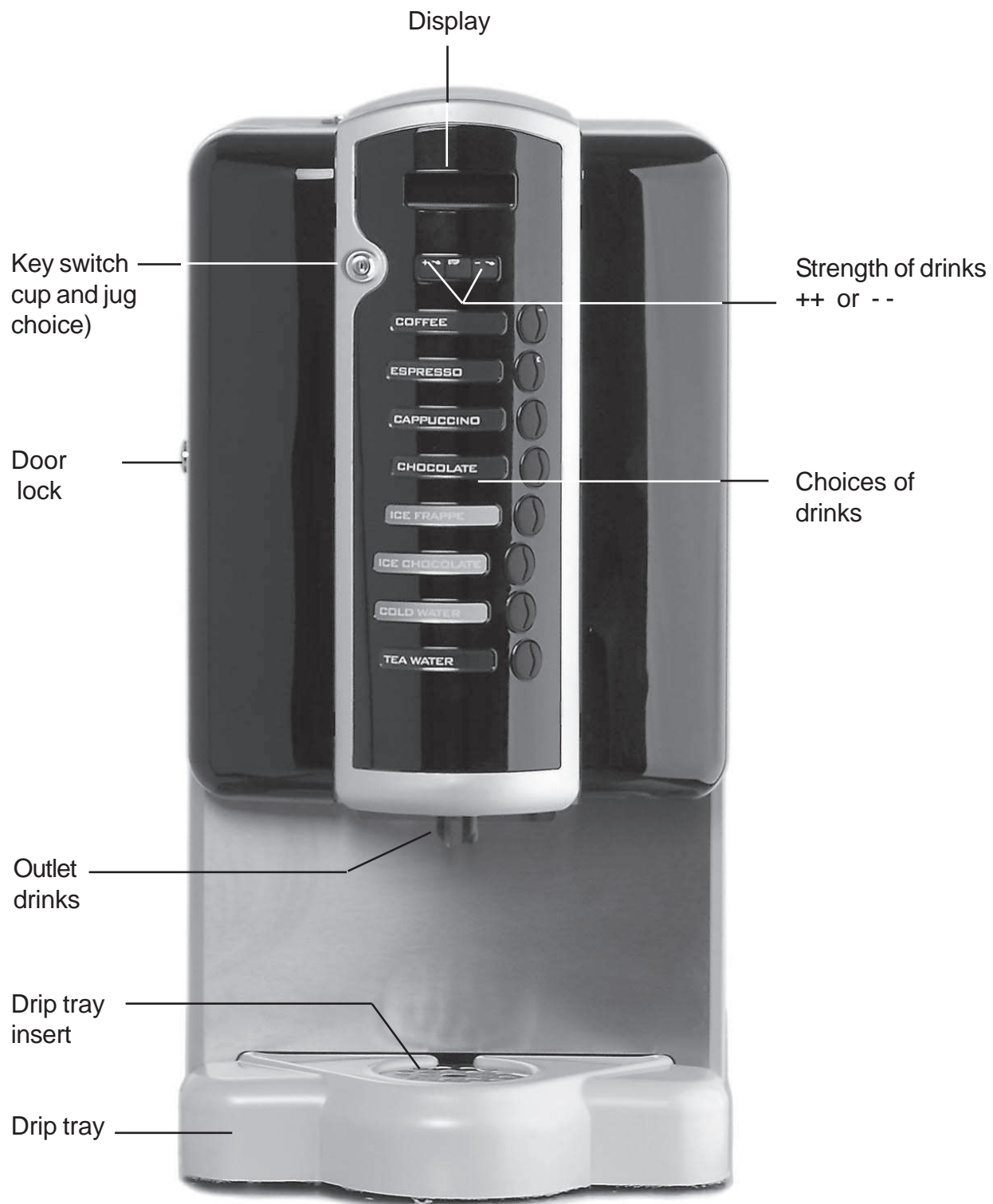
Always keep this manual within reach for the user!

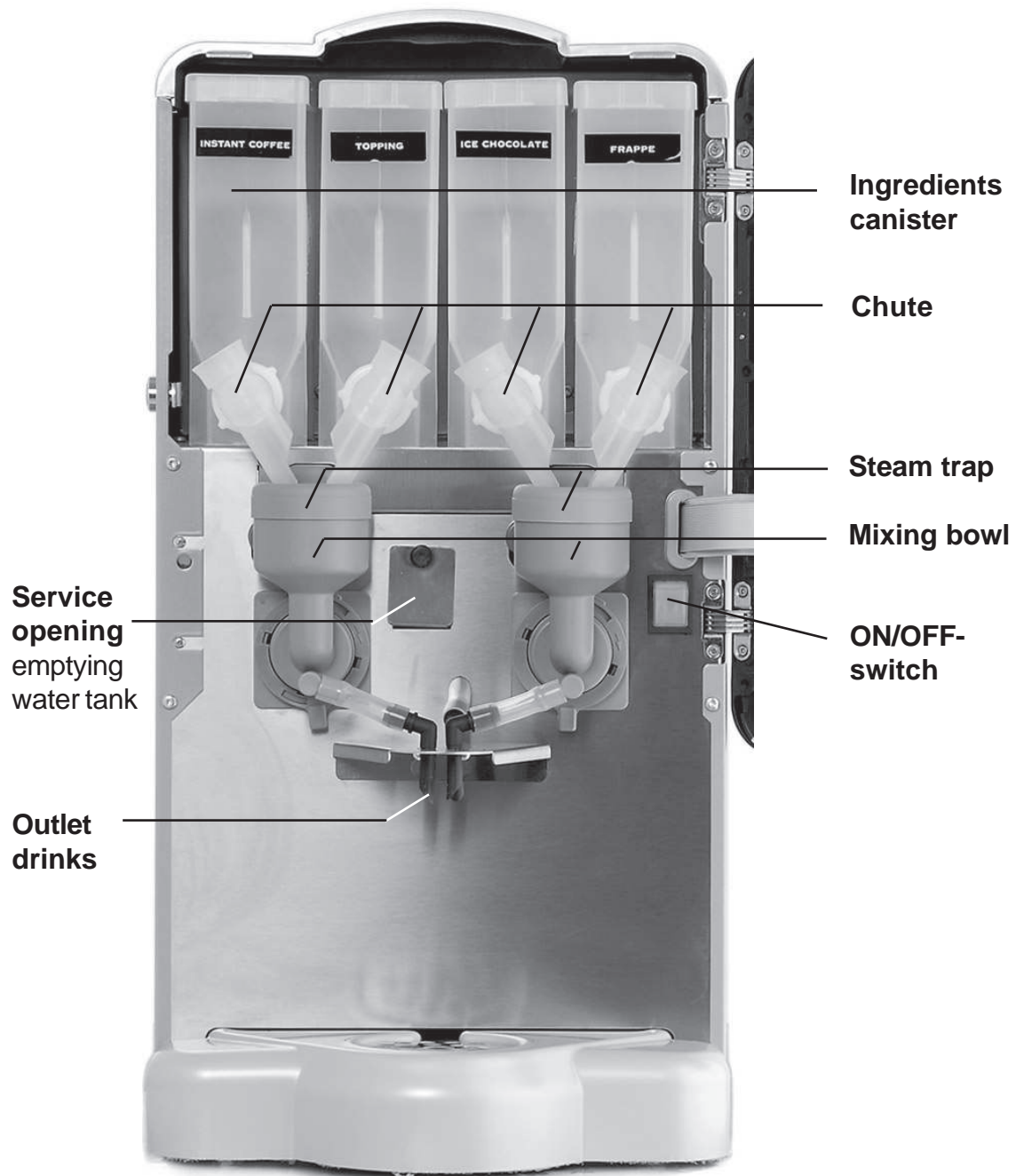
Coffee Queen / Empire hot

- making coffee cup by cup
- 8 choices of drinks,
- 2 - 4 ingredients canisters,
- electronically temperature controlled
- adjustable coffee strength
- clock functions

Facts:

Height	620 mm
Width	310mm
Depth	490mm
Electricity	230V/2200W
Water connection	½"outside thread





Empire cold: 4 canisters.

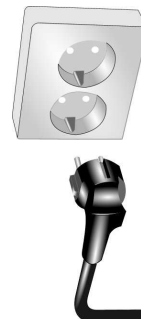
Canister:	Width	Depth	Height	Volume/litre;	
coffee	67	225	200	1,15	
espresso	67	225	200	1,15	
chocolate	67	225	200	1,15	
topping	67	225	200	1,15	

1. Place the brewer on a flat level and waterproof surface.



Connect the electrical plug to a separate grounded wall socket

**Grounded wall socket
230V 10A**



OBSERVE!

**Make sure there is a space behind the machine for free flow of air.
(minimum 10cm).**

2. Connect attached water tube to cold water with an R 1/2".
Make sure that the water hose not are kinked anywhere when machine is pushed into place.

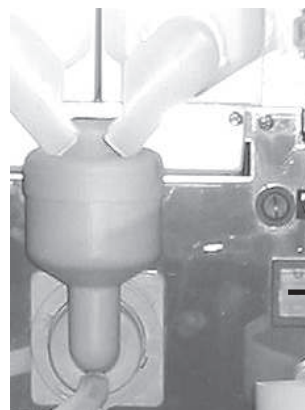
Please flush the water tube before connecting to machine, this to avoid any particles to damage the inlet valve.

3. Open the water inlet.
4. Turn on the ON-OFF switch inside the door.

Water is been filled into the tank automatically with 2,0 litres of water. The heating will not start before the water level reaches the level sensor.

Set temperature is approx. 85°C.

5. Close door.



**ON / OFF
switch**

6. Fill canisters with ingredients.

Take out (this to avoid unnecessary spillage in the machine) ingredient canisters and fill them with ingredients.

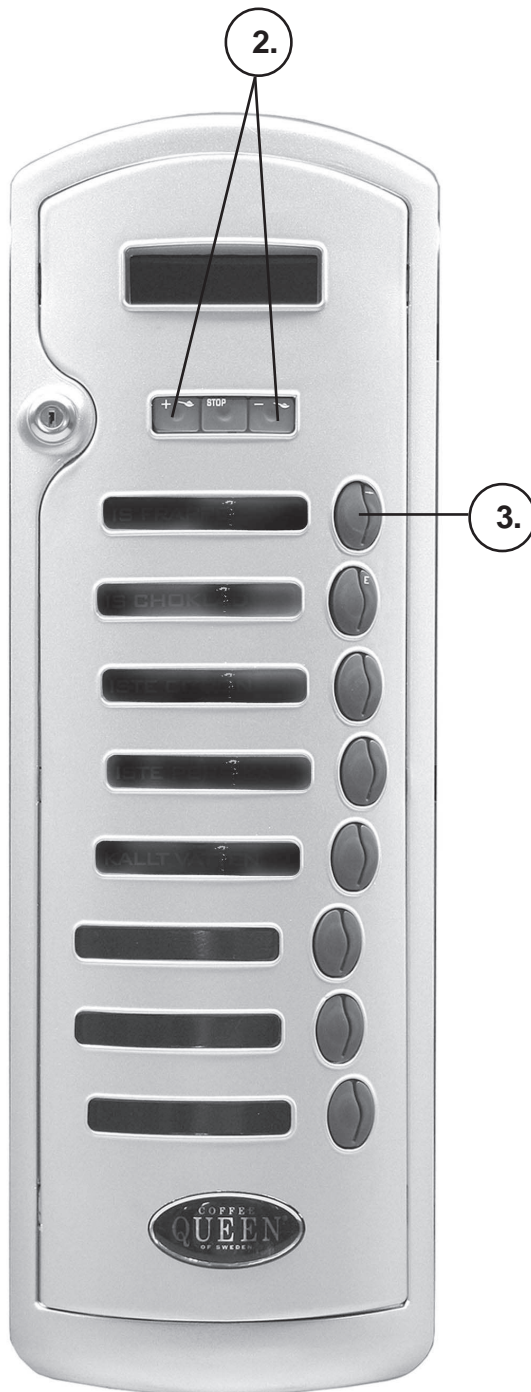
1. Loosen canister.
2. Remove lid and fill canister with ingredients.

Reassemble canisters.

**7. When placing the ingredient canisters;**

Make sure that the outlet pipes on the ingredient canisters are touching the steam traps (A).





1. Place a cup in the centre of the cup holder
2. **The strength has a standard setting,** if you wish to increase or decrease it, do as follows if not continue to point 3.

Stronger drink;

Increase by pushing + or ++ for 5% or 10% alternative

Weaker drink;

Decrease by pushing - or -- for 5% or 10% (the indication lamp will go up or down depending of choice).

3. Choose drink by pushing on the button to the right of each menu
The display will show; "Please wait"

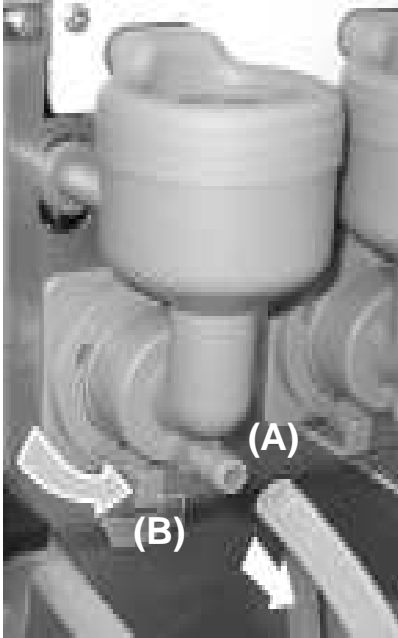
Wait until the text "Please wait" has been turned off before you take your cup.

Enjoy your drink.



Dismantle : Mixer system

1. Loosen outlet hose (A) and turn lock knob (B) anti-clockwise.



2. Loosen mixer bowl. Pull apart (C).



3. Loosen whipper (D) pull whipper straight out from the machine.



4. Turn lock knob anti-clockwise. (E) until it stops

**Cleaning**

5. Clean with a wet rag and drought drily.

**Wash these parts:****.6.**

- A. Mixer bowl



- B. Steam trap



- C. Whipper



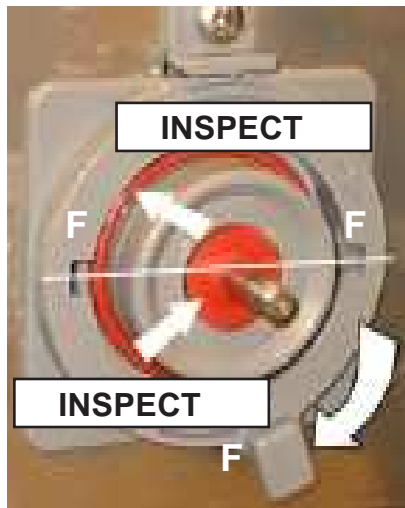
- D. Assembly plate



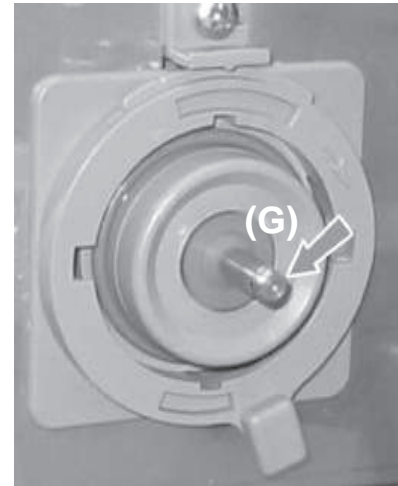
NOTE!
Make sure this parts are dry before use

REASSEMBLE: Mixer system**7.**

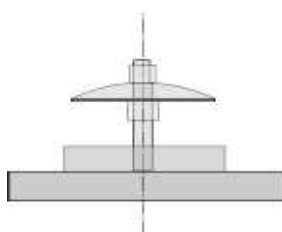
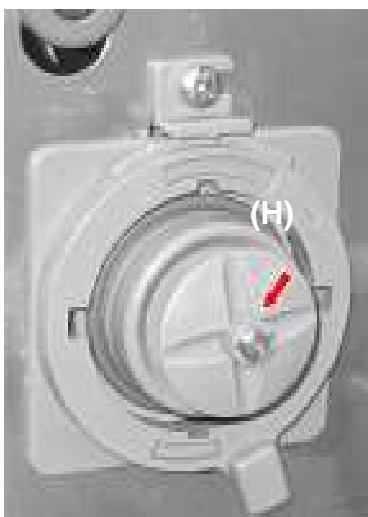
Reassemble the assembly plate by turning lock knob **(F)** clockwise. **INSPECT** gaskets.

**8.**

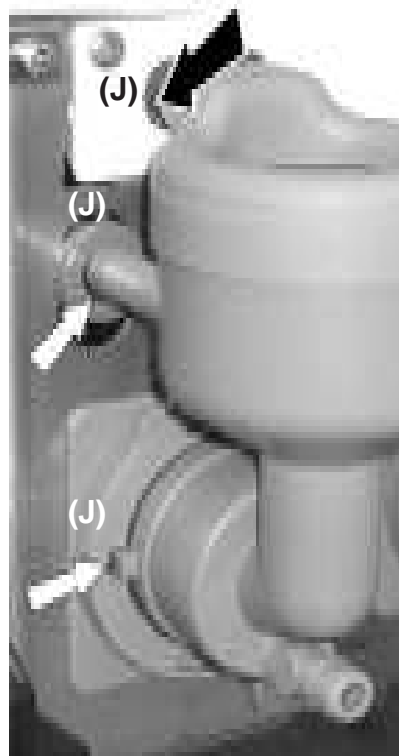
Make sure that the motor whippers plane side will be in accordance with the whippers plane side. see next **(G)** and picture **(H)**.

**9.**

Assemble whipper , pull until you hear a clicking noise. **(H)**.

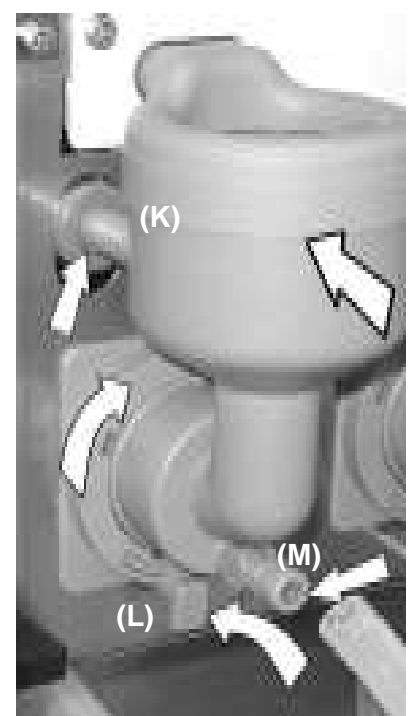
**10.**

Assemble mixer bowl and steam trap **(J)** see picture.

**11.**

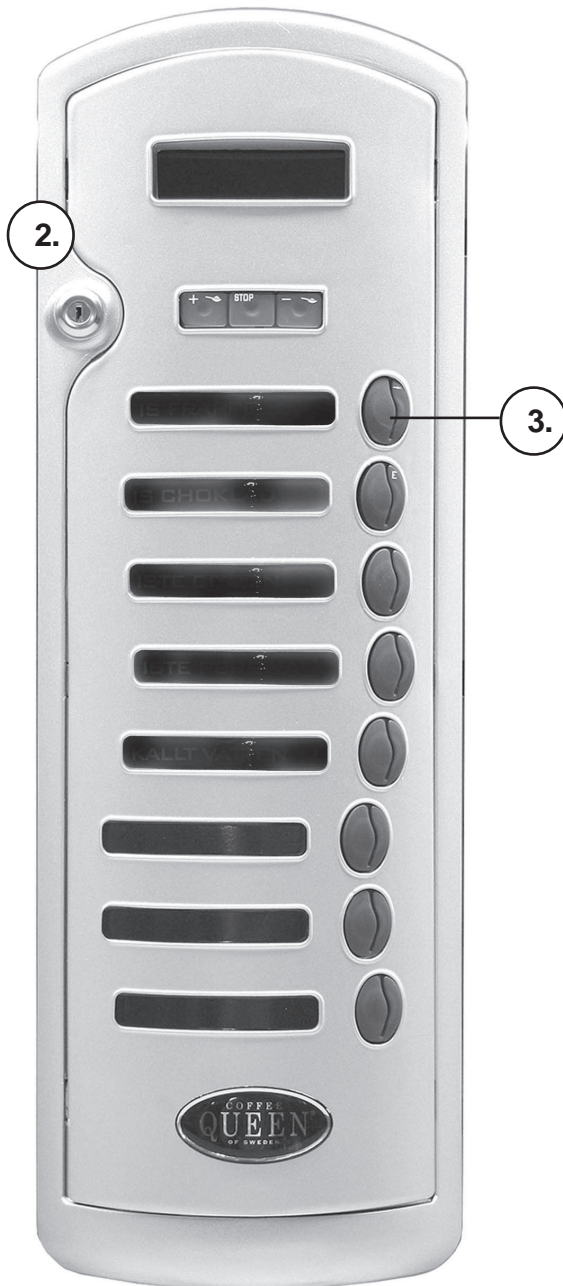
Easily push the mixer bowl towards, according to **(K)** and lock with lock knob **(L)**. Connect outlet hose **(M)**.

(NOTE! make sure that all water hose are connected at right place



Automatic cleaning of mixing system.

The mixer bowls can easily be cleaned with the key switch in "cup" (normal) position. **Daily automatic cleaning of mixing system must be done once a day.**



1. **Place a jug in the drip tray.**
2. Turn the key slowly ninety degrees and back again.
3. **Push button for drink 1 for 6 seconds.**

After 6 seconds the mixer bowl starts to be cleaned in max.10 seconds.

The display shows:

"Cleaning Mixer 1". (in 5 sec.)
"Cleaning Mixer 2". (in 5 sec.)

Automatic cleaning of mixing bowl 1 or 2

The mixer bowls can easily be cleaned with the key switch in "cup" (normal) position.



1. **Place a jug in the drip tray.**
2. Turn the key slowly ninety degrees and back again.

3. **Push button for drink 2 for 6 seconds.**
To cleaning mixing bowl 1

or

4. **Push button for drink 3.**
To cleaning mixing bowl 2.

After 6 seconds the mixer bowl starts to be cleaned in max.10 seconds.

The display shows: "Cleaning Mixer 1",
"Cleaning Mixer 2".

Automatic cleaning of In/Outlet valves:

The In/Outlet valves can easily be cleaned with the key switch in "cup" (normal) position.



1. **Place a jug in the drip tray.**
2. **Turn the key slowly ninety degrees and back again.**
3. **Push button for drink 1 and 2 at the same time for 6 seconds.**

Hold the buttons down.

All In/Outlet valves will now start to open and close with 2 pulses/second in 10 seconds or as long as you hold the buttons

The display shows: "Cleaning valves".



Cup counter:

The machine has a cup counter which is available to see and reset with the key switch in "cup" (normal) position.

1. **Push "-" button for 6 seconds.**
After 4 seconds the signal will go faster..
The display shows: **"Total xxx cups"**
2. Push button for drink 2.
The display shows: **"Choice 1 free xxx cups"**
3. Push button for drink 2.
The display shows **"Choice 1 coin xxx cups"**
4. Push button for drink 2.
The display shows **"Choice 1 xxx cups in can"**
5. Push "+" button to reach to "choice 2" etc.
6. Push choice 3 to reset the counter.
7. Push "Stop" button to go back to user mode.



Easy Access:

Volume and strength can be adjusted with $\pm 15\%$ with the key switch in "cup" (normal) position.

1. **Push "+" and "-" button at the same time.**
After 4 seconds the signal will go faster.
The display shows: "Easy access" "strength 1 100%"
2. Choose the drink you want to change by pushing "+" or "-" button.
3. Push button for drink 2.
The display shows: for example. Volume 4 and "Blinking 100%"
Change by pushing "+" or "-" button.
4. Push button for drink 2 to confirm the change.
5. Press "stop" to go back to user mode.

9. Safety functions.

Empire Hot

The machine is equipped with following safety functions

1. Indication of door
Door not closed
The display shows; "Door open"
2. When machine is not in use:
Valves are blocked.



10. Failure messages.

Failure messages which can mostly be corrected without any help from service company

1. **Display shows:** "Blocked" "Water level low".
Check if water tap is open.
Turn off the machine with the main switch,
wait for 10 sec. and turn on again.
2. **Display shows normal:** but no drink is coming.
Possible cause of failure:
Mechanical stop in the ingredients canisters or
whipper house.

Action: Try to find the cause of failure.
Clean the mixer system and try again.

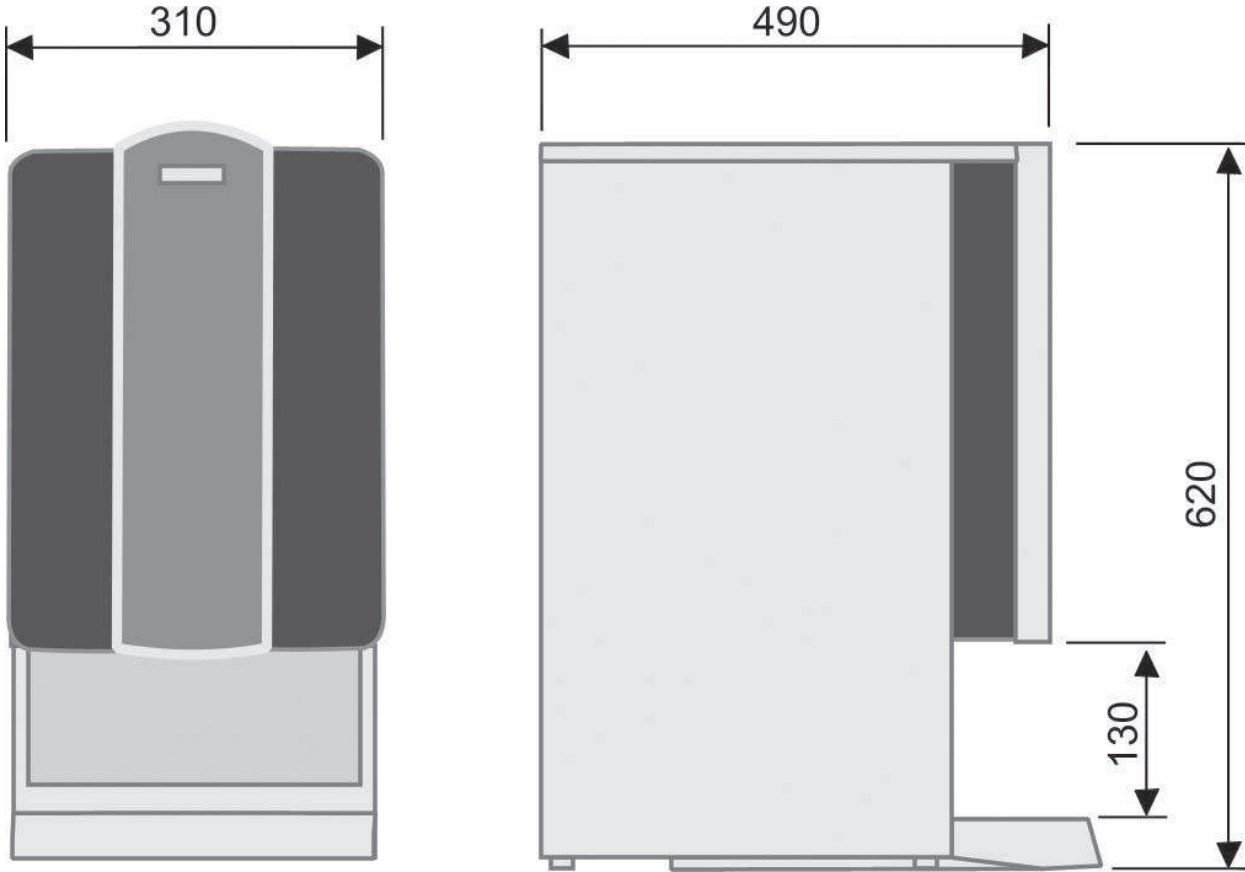


11. Storage / Transport.

Transport and no use in long time.

1. Turn off the switch, pull out the plug and close incoming water tube.
2. Empty the water tank.
3. Keep machine free from frost.

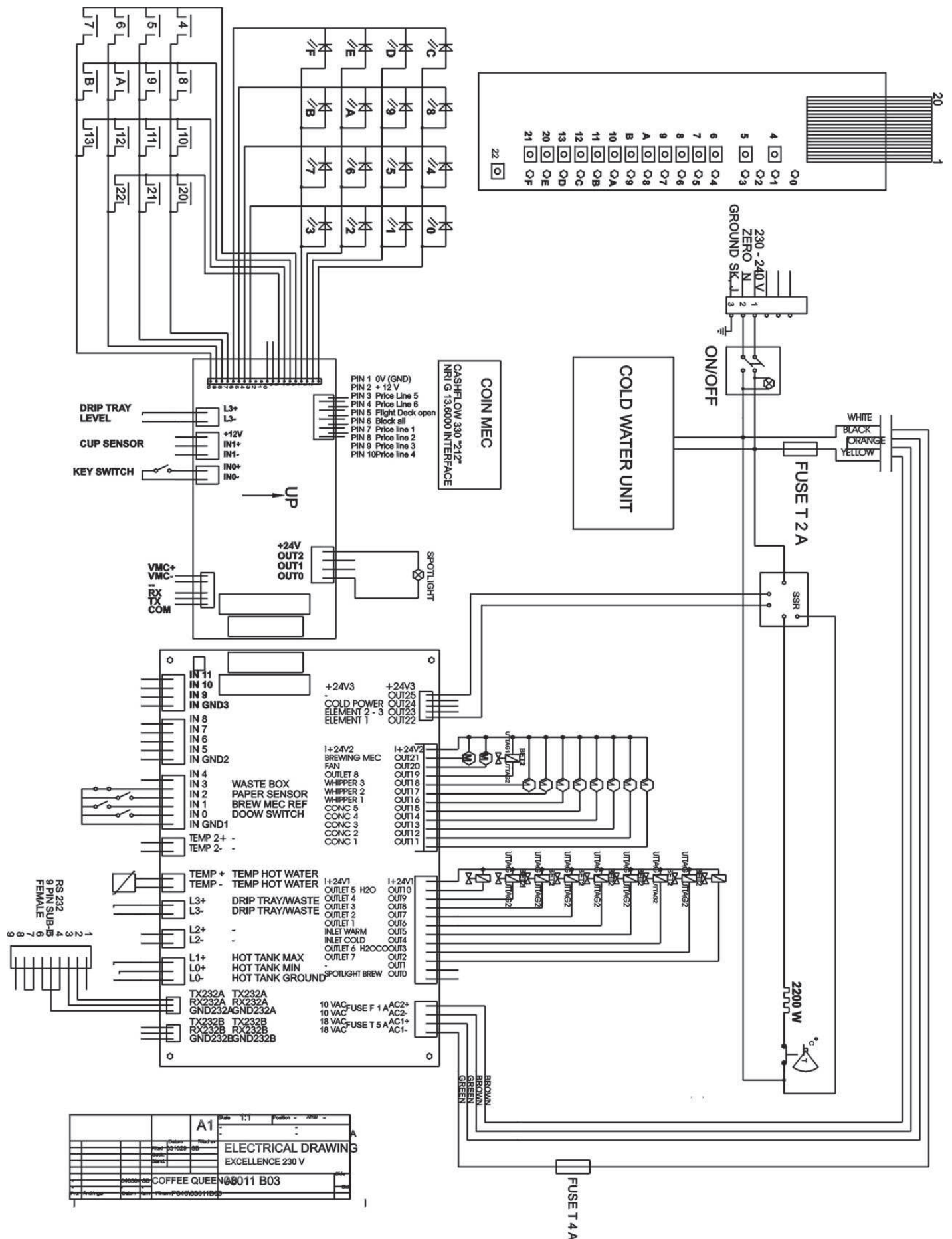
Long machine storage at temperatures below 0°C can cause damage of the machine.
Total emptying of water is recommended.





Outside cleaning; use a soft rag and liquid cleaning agent to prevent scratches.

14. Circuit diagram.



15. Spare part list.

Empire Hot

Description:	Art. no.	Pos. no.	Amount/unit		
			2	3	4
Level sensor with gasket	120548	1	1	1	1
Gasket for sensor	150118-02	2	1	1	1
Sensor pin short	1205302	3	1	1	1
Double seal, level sensor	1605362	4	1	1	1
Sensor pin long	1205301	5	1	1	1
Heating element 2200W 230V	1601361	6	1	1	1
Gasket, water tank,lid	1206591	7	1	1	1
Motor gear 145 rpm, without axle	1604612	8	2	3	4
Motoraxle for 1604612, 16mm	1604614	9	2	3	4
High limit controll, BULBA	220220	10	1	1	1
NTC thermistor	1604133	11	1	1	1
Valve outlet, 24 V DC	120627-03	12	3	3	3
Membrane	1501191	13	3	3	3
Inlet (rubber), for valve (transparent)	160537-03	14	3	3	3
Plug, water tank (transp.)	160538-03	15	1	1	1
Rubber grommet , for NTC thermistor (red)	1605361	16	1	1	1
Water tank complete , 1/3 phase	710021	17	1	1	1
Silicone hose outlet 8x12 L=50	150501	18	2	2	2
Silicone hose coffee 8x12 L=255	150501	18	1	1	1
Silicone hose topping 8x12 L=260	150501	18	1	1	1
Silicone hose choc/topp. 8x12 L=345	150501	18	1	1	1
Silicone hose inlet and overflow 8x12 L=430	150501	18	2	2	2
Silicone hose draining 8x12 L=710	150501	18	1	1	1
Non return valve/ inlet	1206123	19	1	1	1
Note! Silicone hose (150501) sales by metre.					
Steam trap	120500	20	2	2	2
Mixing bowl	1204852	21	2	2	2
Whipper	1204842	22	1	1	2
Motor whipper 24V F	7001111	23	1	1	2
Plate, motor whipper(grey)	1604592	24	2	2	2
Assembly plate (grey)	1204781	25	1	1	2
Assembly plate, tight (grey)	1204831	26	1	1	-
Hose connection, angular, (mixer bowl- outlet)	1204853	27	2	2	2
Angle of outlet (svart)	120145	28	3	3	3
O-ring red for assembly plate mod. F	120638	29	2	2	2
Slinger disc	120480	30	1	1	2
Grommet (for whipper pin) (red)	120655-02	31	1	1	2
Bulk head adaptor mixer bowl	120498	32	2	2	2
Switch 2 pol (illumin.)	160801-04	33	1	1	1
Foam for dust trap	120136	34	1	1	1
Dust trap	253017	35	1	1	1

15. Spare part list.

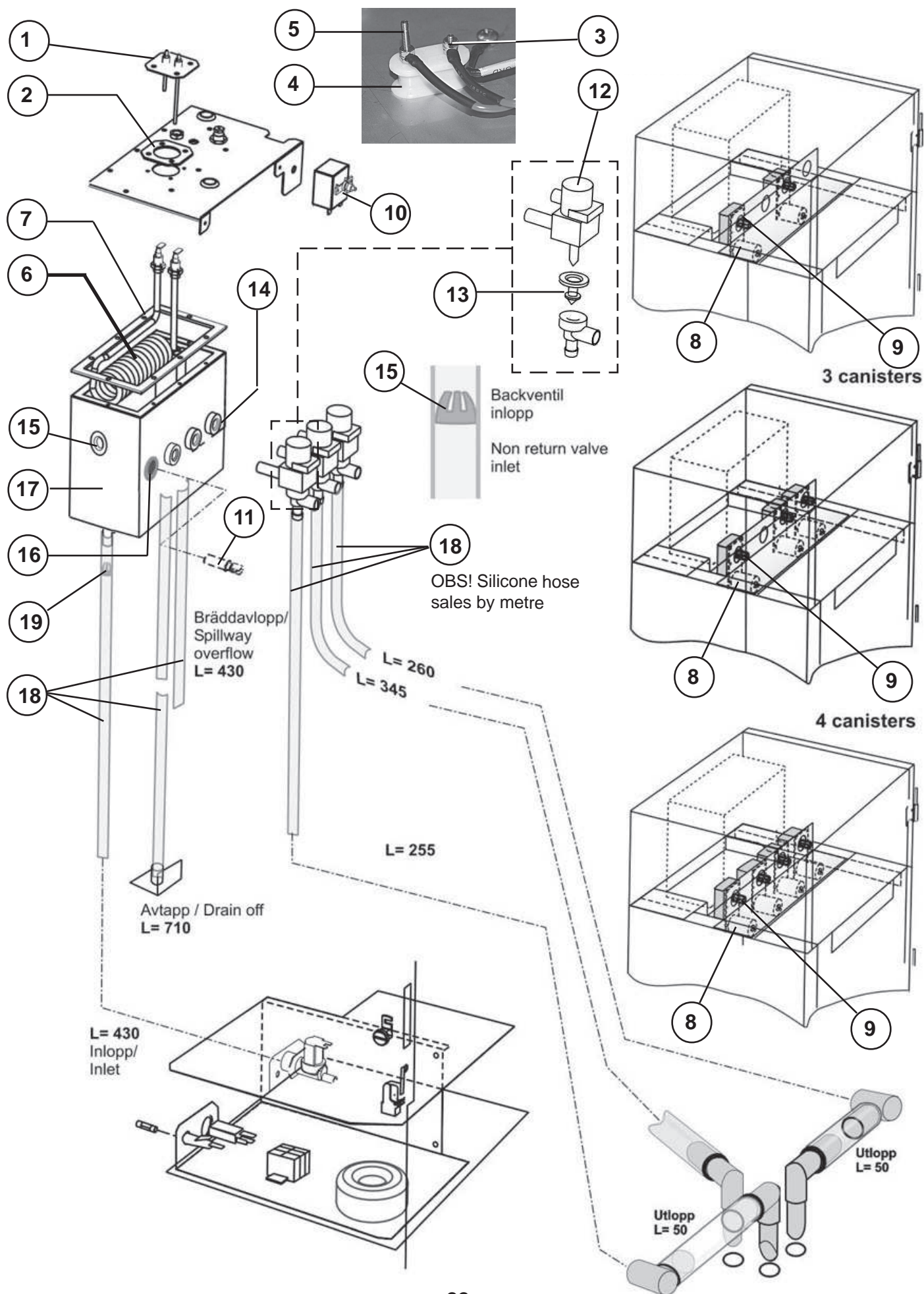
Empire Hot

Description;	Art. no.	Pos. no.	Amount/unit		
			2can.	3can.	4can.
Ingredient canister compl. B67 x H 200 plast	1205622	40	-	2	4
Ingredient canister compl. B137x H 200plast	1204878	41	2	1	-
Lid	1204955	42	2	1	-
Chute left(FB)	120489	43	2	1	-
Feed control, plast	1204712	44	2	1	-
Cage(metal)	1801451	45	2	1	-
Agitator+screw kompl.	1204733	46	2	1	-
Lid 67 B67 x H 200	1205671	47	-	2	4
Fan connection complete	1604173	49	1	1	1
Fan 24VDC	1604171	50	1	1	1
Grid cover for fan	1604172	51	1	1	1
Valve inlet 2,5 l/min. 24VDC	1206371	52	1	1	1
Solid-state relay	1604201	53	1	1	1
Electronic-card Ver II	1604102	54	1	1	1
Fuse 4 A slow 5x20	1604381	55	1	1	1
Main supply cable, Europa	160565	56	1	1	1
Inlet-plug and socket	160570	57	1	1	1
Fuse holder	1604351	58	1	1	1
Fuse 2 A slow 5x20	1604382	59	1	1	1
Connection block PA 80	160351	60	1	1	1
Gable (connection block) PA 80	160352	61	1	1	1
Transformer	710150	62	1	1	1
Micro switch	160841	63	1	1	1

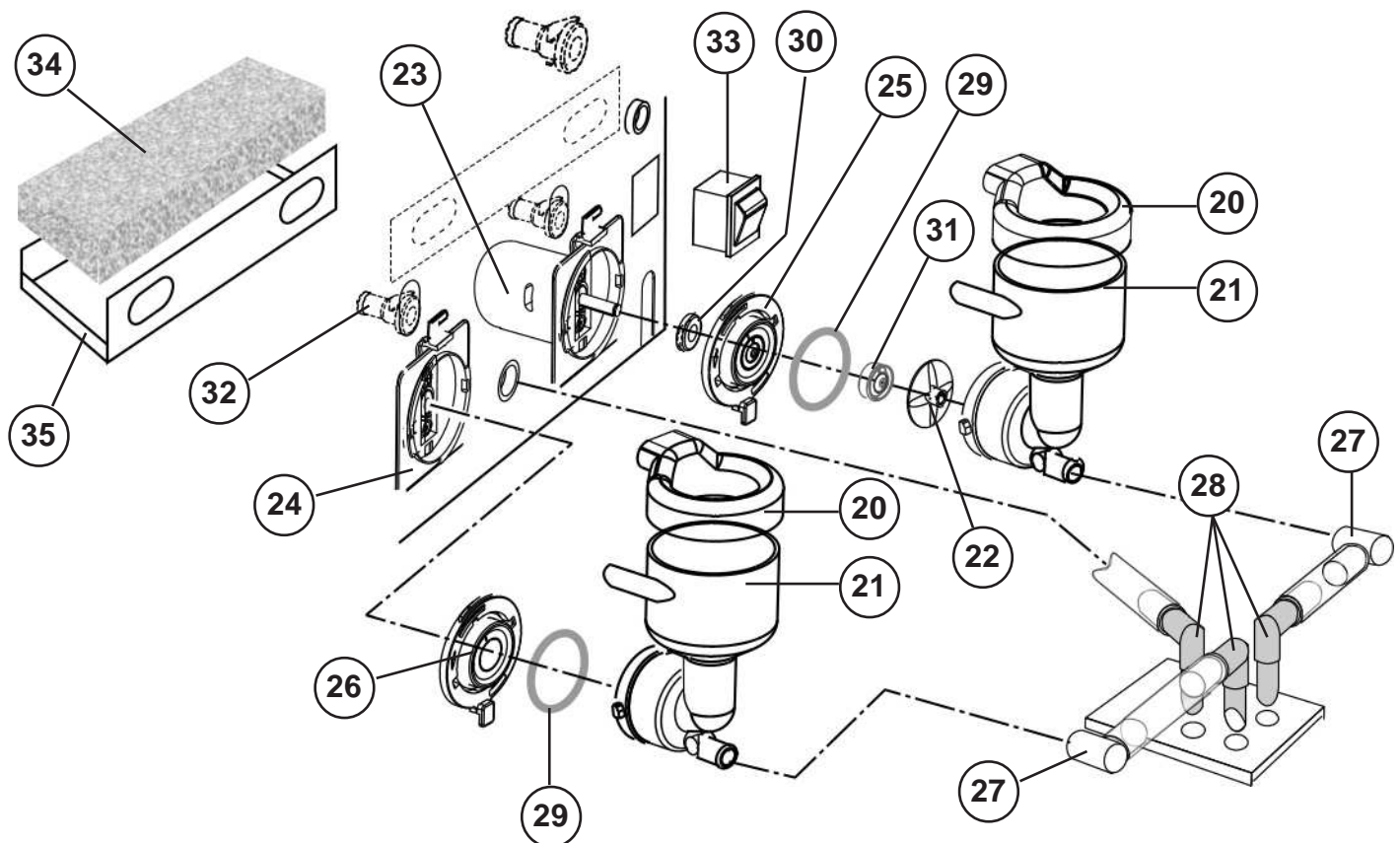
15. Spare part list.

Empire Hot

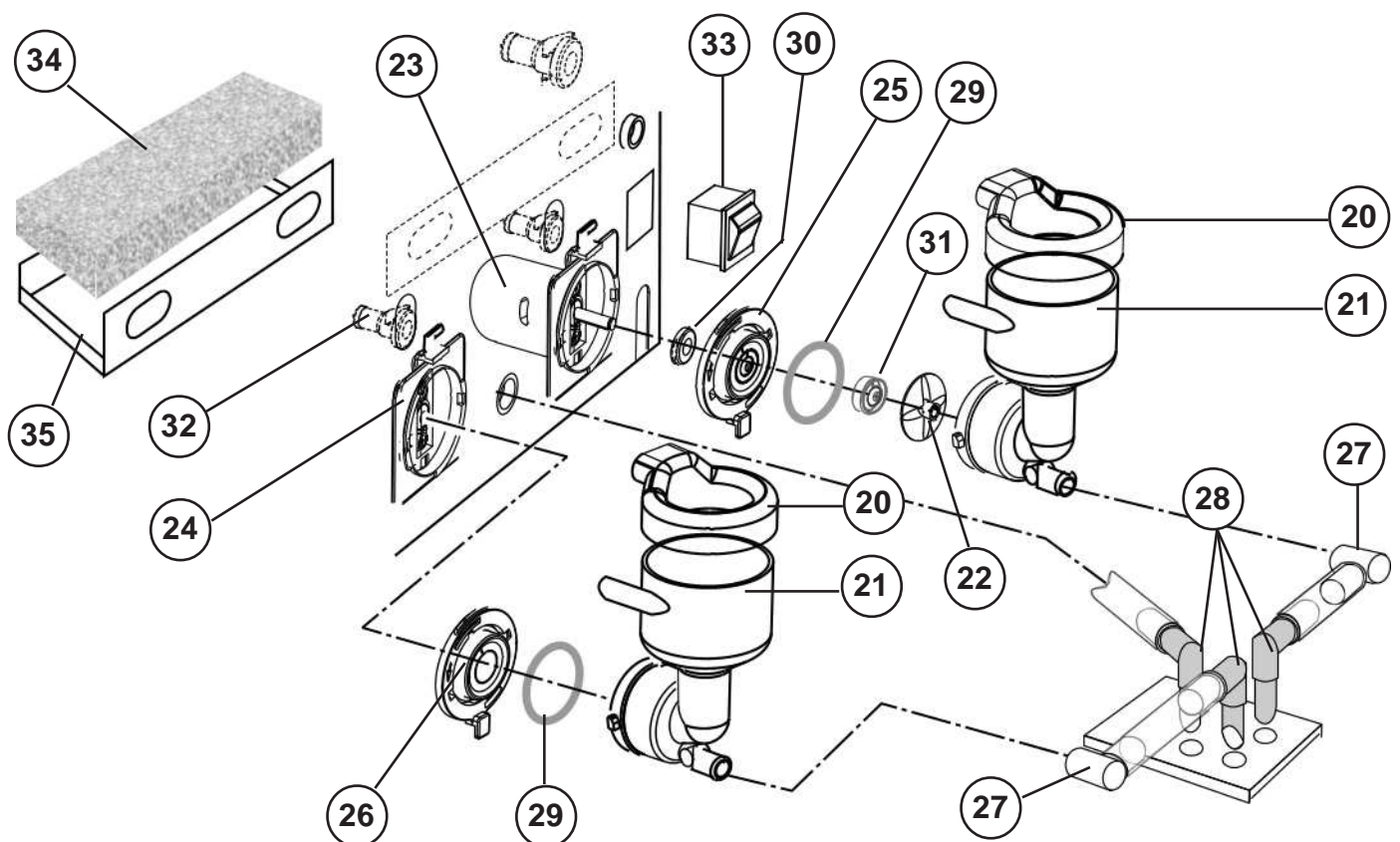
Description;	Art. no.	Pos. no.	Amount/unit		
			2can.	3can.	4can.
Electr.onic-card,display Ver I	1604101	65	1	1	1
Flat conductor cable	1606727	66	1	1	1
Drip tray low, till och med 07-03	1105354	67	1	1	1
Drip tray high, grey	1105383	68	1	1	1
Drip tray insert	252416	69	1	1	1
Membrane switch	1603849	70	1	1	1
Key-switch	1202551	71	1	1	1
Lock with clamp(door) Instant	120250	72	1	1	1
Key, (door) Instant	120251	73	1	1	1
Service key (tool)	180290-03	74	1	1	1
Foot	1203202	75	4	4	4
Inlet hose 3/4" x 1/2"	150541	76	1	1	1



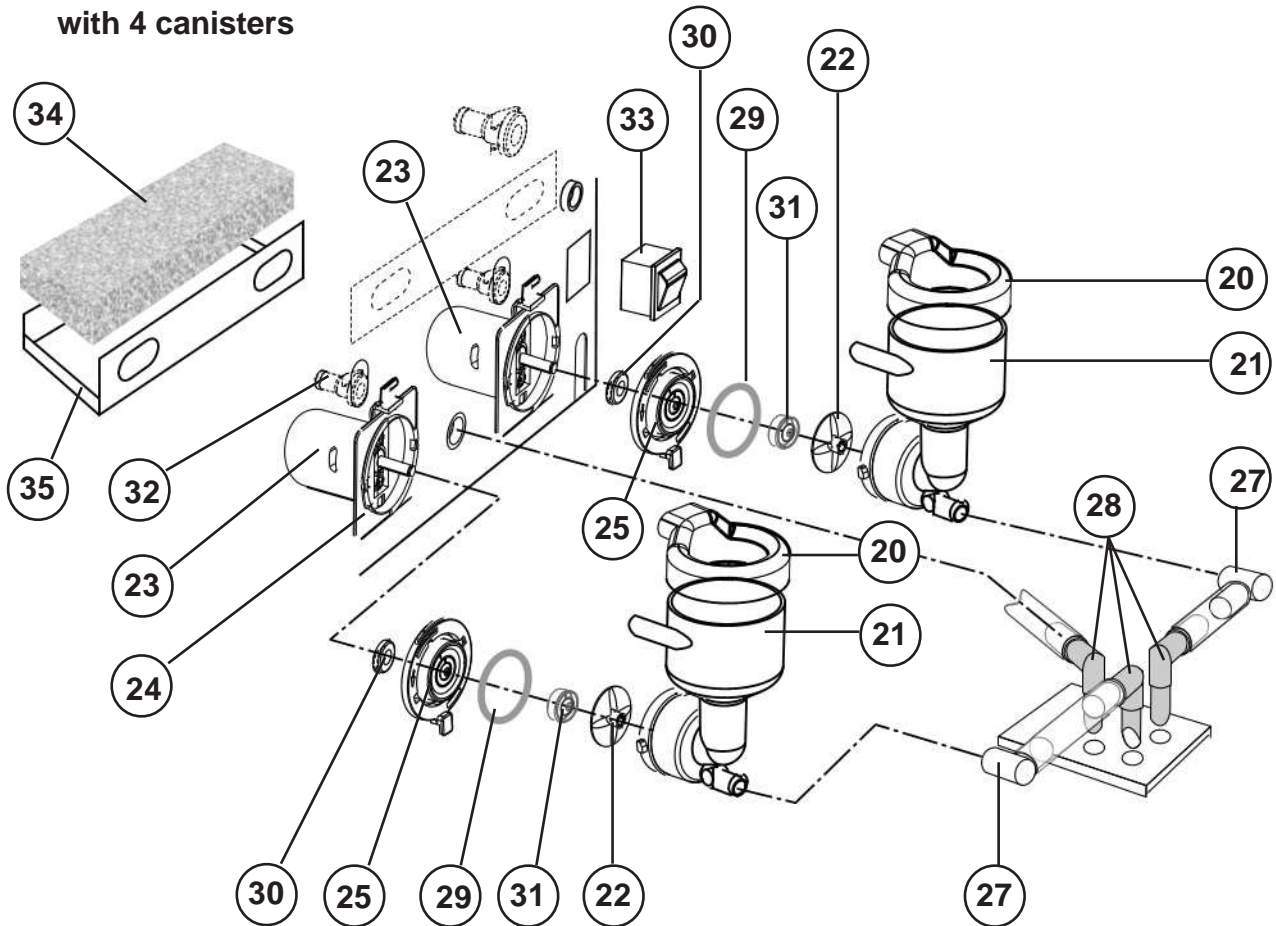
2 canisters



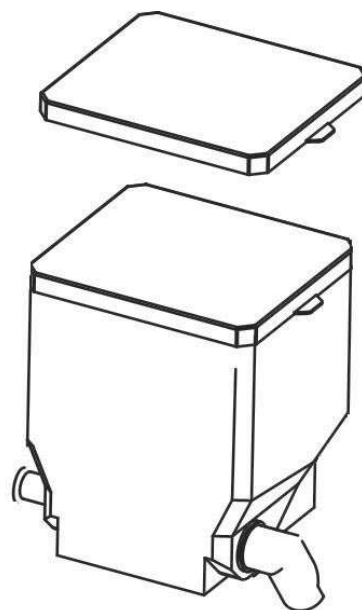
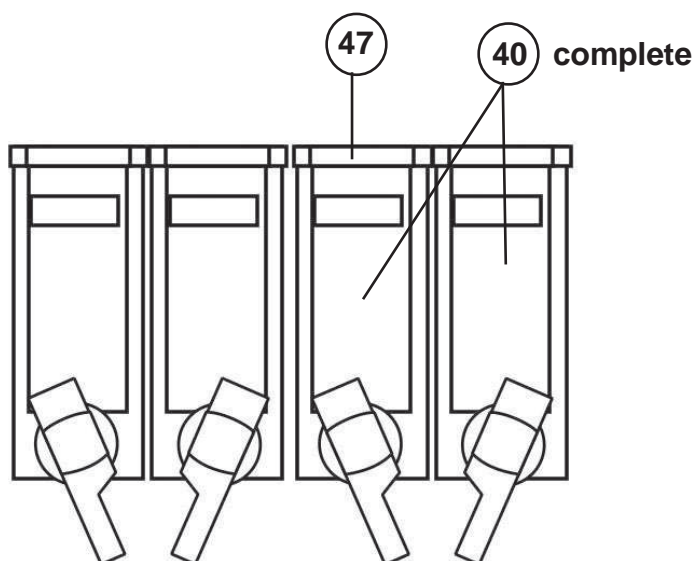
3 canisters



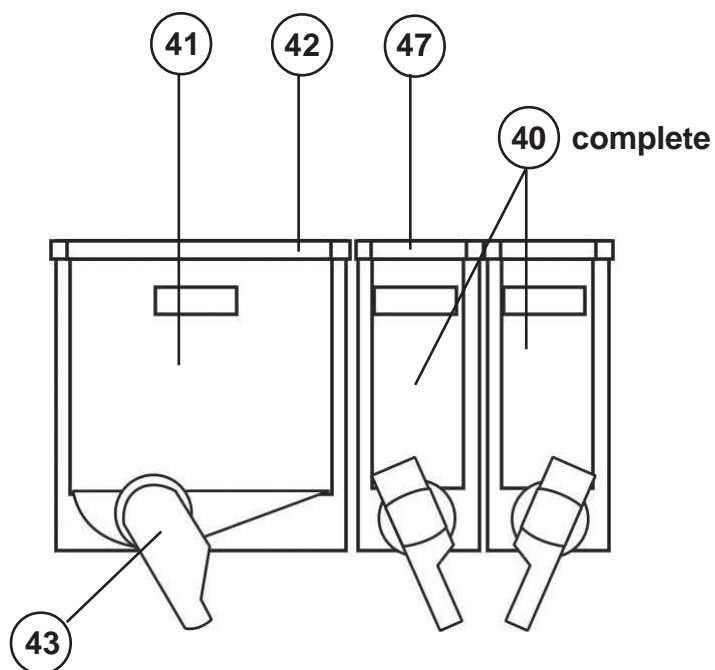
with 4 canisters



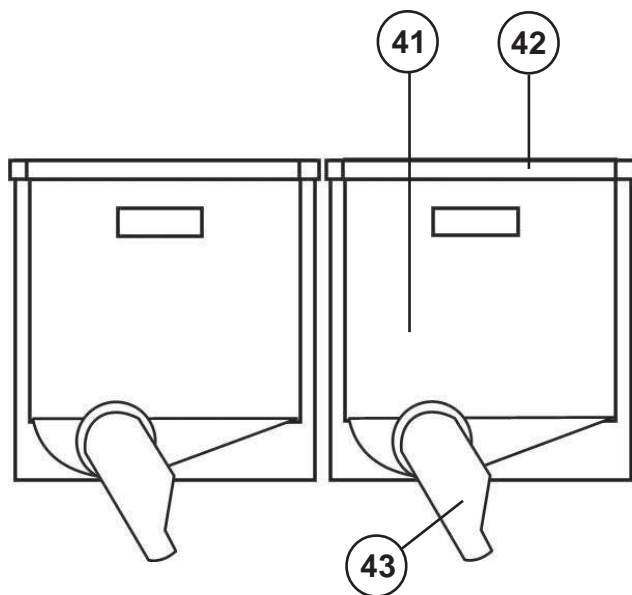
Parts; canisters.



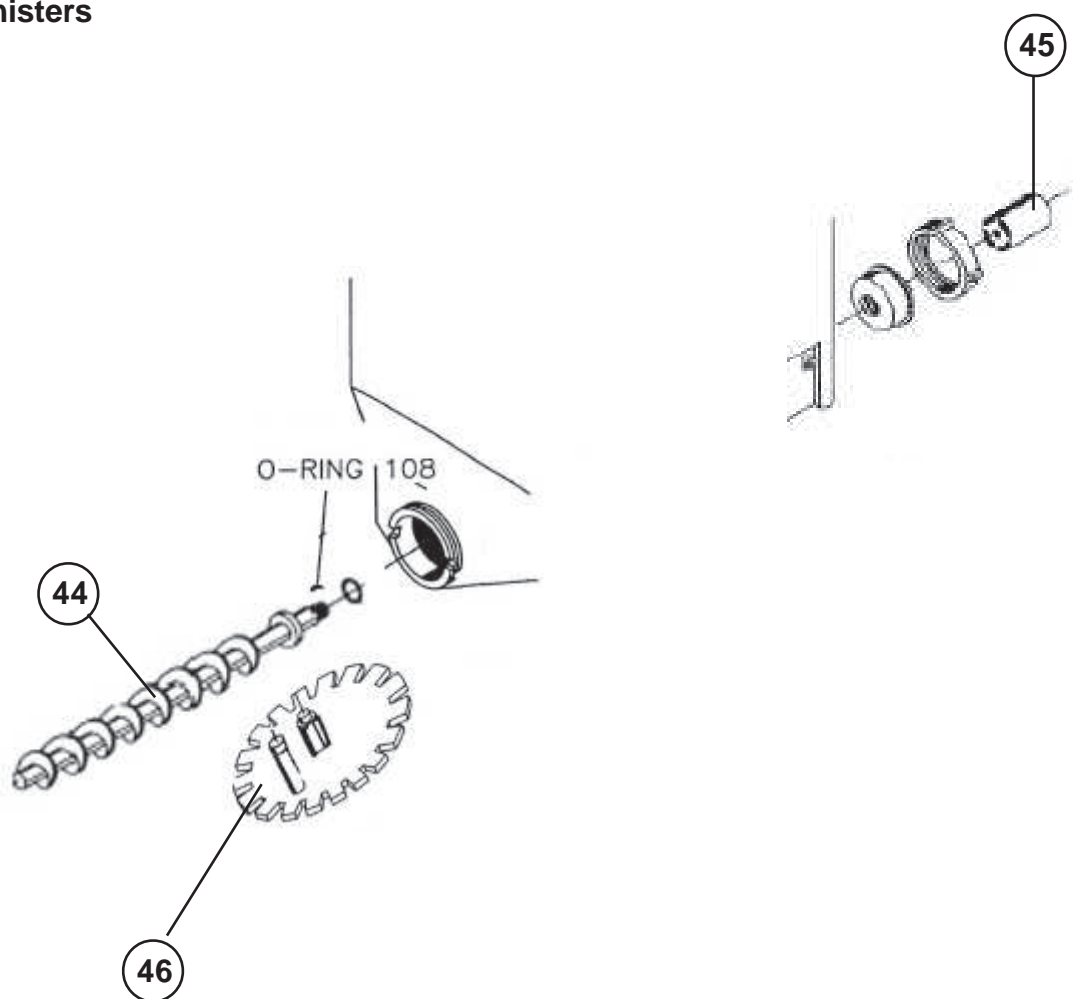
Parts; canisters.

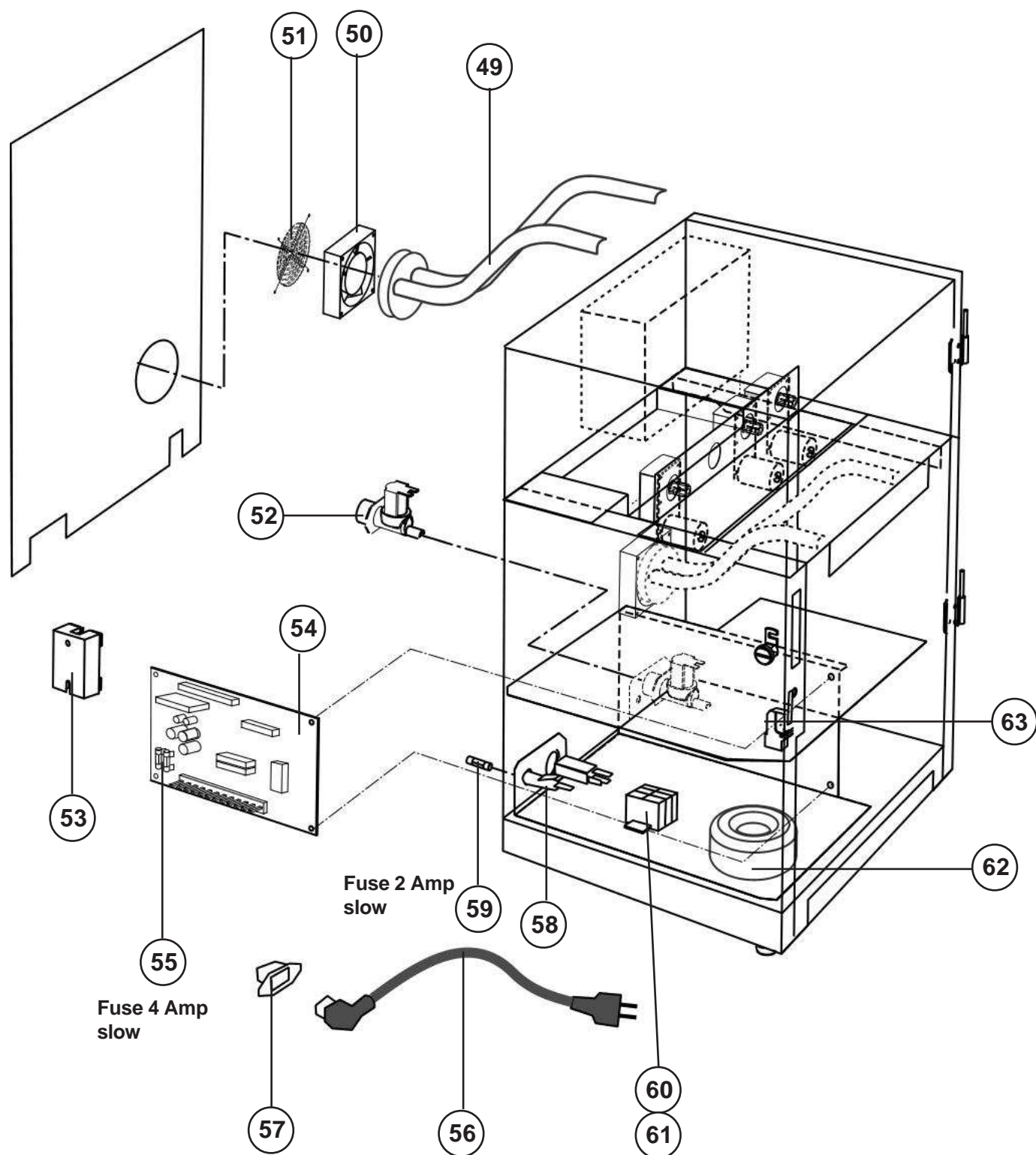


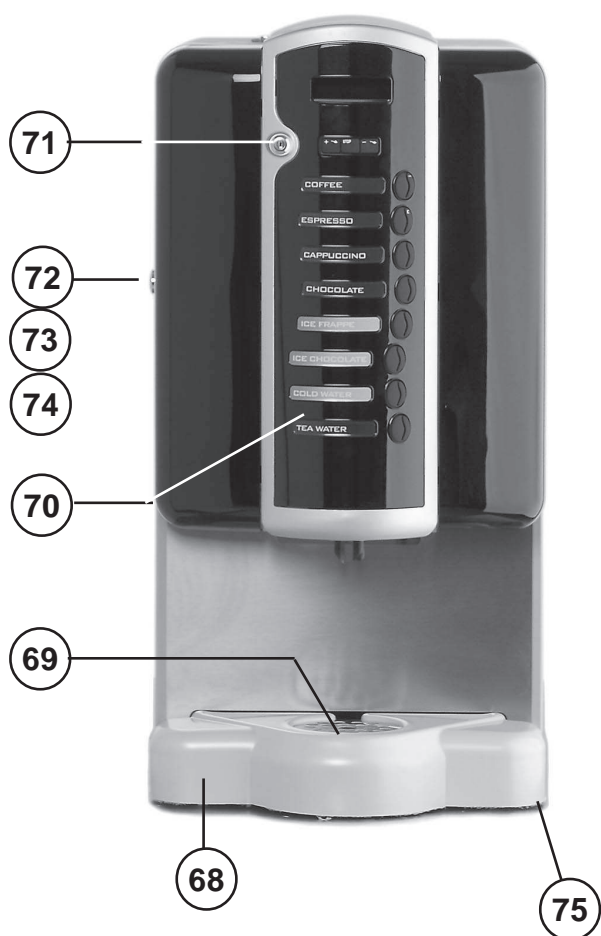
Parts; Canisters.



Parts; canisters

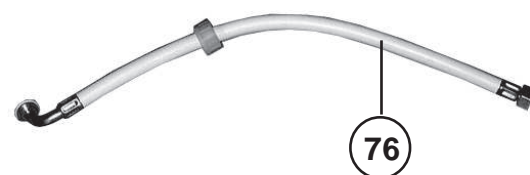
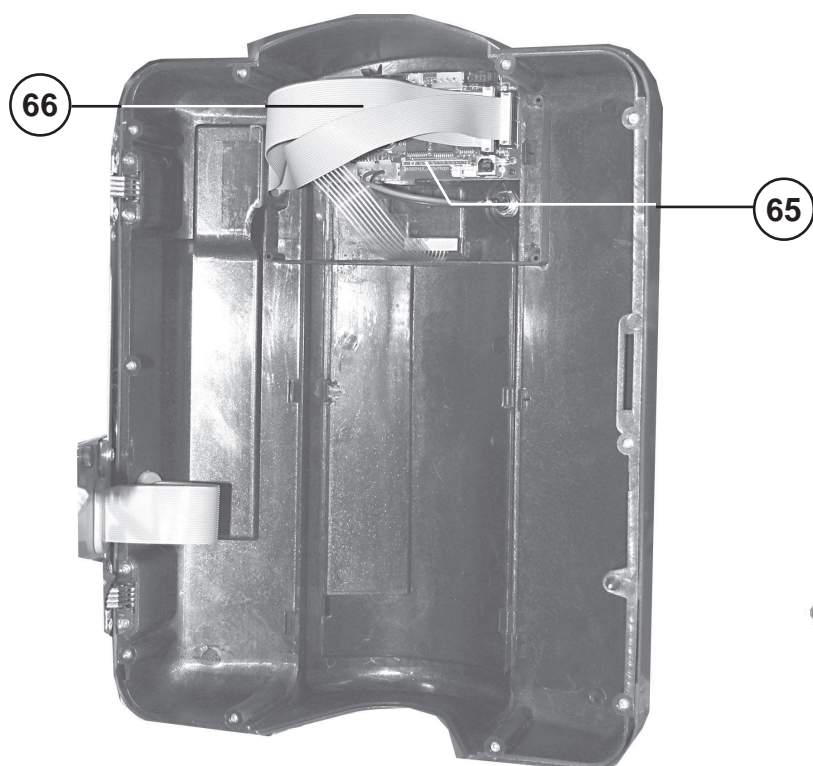






67 Drip tray low model
t.o.m. 07-03

Drip tray high model
from 07-04



COFFEE QUEEN

Empire hot



FOR SERVICE

Please contact

Your retail dealer

.....

.....

.....

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