

Franke Evolution

Technical Training Manual

Safety Information – Chapter 1



Franke Coffee Systems
800 Aviation Parkway
Smyrna, TN 37167
(615) 462-4000

Change log

Date	Changes	Author	Change No.	ID
2012-01-18	New Manual Concept	MPH		

Publisher:

Franke Kaffeemaschinen AG
P.O. Box 235
CH-4663 Aarburg
Switzerland

www.franke-cs.com

Table of Contents

Change log	2
Table of Contents	3
Safety Notes	4
Safety.....	5
Electrical System	5
Steam System.....	5
Hydraulic System	5
Installation of machine	6
For your health	6
Tools	6

Safety Notes

The installation, setting, repair and maintenance work described in these instructions must be performed only by service technicians trained by Franke Coffee Systems North America Inc. and when using original Franke parts!

Observe the following dangers and warnings when servicing coffee machines with live voltage.

DANGER

DANGER!
Mortal Danger!
Electrocution caused by coming in contact with live voltage.
Safeguard parts with live voltage against contact.

WARNING

WARNING!
Indicates risk of injury!
You may suffer injuries due to moving parts crushing fingers and hands.
Secure moving parts against unintentional movement.

CAUTION

CAUTION!
Indicates risk of minor injury!
Avoid burns caused by hot water, steam, hot milk, or milk foam

NOTE

NOTE!
Indicates possibility of damage to the machine.

Safety

DANGER

Electrical System

Before performing maintenance on any electrical related component, ensure the following:

- Always disconnect from its power source before opening the machine.
- Ensure that the machine cannot be accidentally turned ON.
- Never operate a machine that has been damaged or has a damaged power supply cable.
If the power supply cable to this machine is damaged, it must be replaced with an original power cord.
- Ensure that the machine and power cord are not near any hot surfaces such as gas or electric stoves or ovens.
- Ensure that the power cord is not pinched and does not rub against sharp edges. the machine contains electrically conductive parts. Opening the machine can pose risk of death.
- Do not make any modifications to the machine that are not described in the documentation from Franke.

Repairs should only be made using original replacements and accessory parts.

DANGER

Steam System

Before performing maintenance on any steam related component, ensure the following:

- Disconnect the machine from the water supply.
- Always disconnect the machine from its power source.
- Empty the machine before performing any work on the boiler system.

DANGER

Hydraulic System

Before performing maintenance on any hydraulic related component, ensure the following:

- Disconnect the machine from the water supply.
- Always disconnect the machine from its power source.
- Empty the machine before performing any work on the boiler system

WARNING

Installation of machine

Danger of injury and damage to the machine from improper installation

- Be clear on structural conditions before each installation.
- Evaluate the structural conditions in relation to the requirements.
- Observe local ordinances
- If the customer is unable to fulfill the conditions 100%
- Do not install or start-up the machine or accessories.
- Do not make the improvements at the customer site.
- The customer is responsible for making the needed improvements.
- Exercise care when making repairs or retrofits.
- Pay attention and work carefully.
- Keep hands away from the dispensers and nozzles during cleaning.
-

CAUTION

For your health

Danger of injury and damage to the machine from improper handling:

- Do not lift or move machine alone.
- Adhere strictly to the instructions in the manual.
- Do not touch the machine while it is operating.
- Only collect grounds in the container

NOTE

Tools

The following tools are recommended for servicing the Evolution

- Combination metric wrench set 7-19mm
- 7 and 8mm Metric Allen wrenches
- 3/16 x 4" Standard screwdriver
- 1/4 x 4" Standard screwdriver
- #1 Phillips screwdriver
- Mini screwdriver set
- Wire strippers/crimpers
- Diagonal pliers
- Slip-joint pliers
- Needle-nose pliers
- Teflon tape/paste
- Multi-meter with Amp Clamp
- Food grade lube - Part #296804
- Franke spindle lube - Part# 301340
- Franke grease - Part# 301313
- Bit driver with
 - o #10 Torx bit
 - o #15 Torx bit
 - o #20 Torx bit
 - o #25 Torx bit
- Franke Multi-tool

⚠ CAUTION


CAUTION!
 Danger of injury!
 Do not operate the coffee machine if either bean hopper is removed.
 Serious injury could occur!


⚠ WARNING


WARNING!
 Danger of burns!
 Avoid burns caused by
 hot water, steam, hot milk,
 or milk foam

⚠ DANGER


DANGER!
 Mortal Danger!
 Electrocution caused by coming in contact with live voltage.
 Safeguard parts with live voltage against contact.

Franke Evolution

Technical Training Manual

Installation – Chapter 2



Franke Coffee Systems
800 Aviation Parkway
Smyrna, TN 37167
(615) 462-4000

Change log

Date	Changes	Author	Change No.	ID
2012-01-19	New Manual Concept	MPH		

Publisher:

Franke Kaffeemaschinen AG
P.O. Box 235
CH-4663 Aarburg
Switzerland

www.franke-cs.com

Table of Contents

Change log	2
Table of Contents	3
Franke Evolution.....	4
Ease of serviceability:.....	4
1-Step Evolution	4
Key 1-Step features.....	4
2 Step Evolution	4
Key 2-Step features.....	4
Installation.....	5
When unpacking the Evolution, the following items should be included:	5
Water Requirements	5
Power Requirements	5
Drainage Requirements	5
Water Filtration / Water Conditioning.....	7
Facts & Figures	8
Installation Guidelines	9
Evolution 1-Step.....	9
Evolution 1-Step MUT	10
Evolution 1-Step Self-Service Version.....	11
Evolution 2-Step.....	12
Turning the Evolution on for the first time.....	13
Operating the Evolution	14
Preparing coffee products.....	14
Fresh ground coffee products	14
Pre-ground coffee products.....	14
Dispensing hot water.	14
Preparing milk with the steam wand.	14
Adjusting the Grind	15
Rinsing the Evolution	17
Cleaning the Evolution	18
Cleaning Cycle	18
Manual Cleaning of the CF/CF2 Foaming Unit	20

Franke Evolution

The Evolution, as its name implies, is a further development of the Franke Ecolino superautomatic espresso machine. A few key features that have “evolved” are:

- Up to 24 programmable drinks (Ecolino has 14)
- External grind adjust (standard Ecolino requires the removal of the hopper from the machine)
- Customized programming (a printable foil can be labeled with customer specific drink name (Ecolino has an overlay with “generic” product descriptions))

Ease of serviceability:

- Coffee valve and mix valve are easier to access
- Evolution brew unit is more modular and does not require the technician to disconnect the brew unit tube from the coffee valve
- All of the steam valves as well as the hot water valve are installed on one block. This provides easier access and serviceability.

Like the Ecolino, the Evolution comes in 1-Step and 2-Step configurations.

1-Step Evolution

The 1-Step Evolution has an internal foaming unit that prepares the steamed or foamed milk, as well as preparing the espresso. The 1-Step can produce a milk-based drink with one push of a button.

Key 1-Step features

- Internal foaming unit
- Refrigerator
- Optional steam arm



2 Step Evolution

The 2-Step Evolution, with autosteam, is equipped with a steam wand instead of an internal foaming unit. The barista must manually prepare the milk with a steaming pitcher while the machine prepares the espresso. It takes two steps to prepare a milk-based beverage.

Key 2-Step features

- Higher Watt heating elements
- Steam arm
- Autosteam (option)
- Autosteam Pro (option)



Installation

When unpacking the Evolution, the following items should be included:

- 1 Bean Hopper per Grinder Installed
- 1 Bean Hopper slide per Grinder Installed
- 1 Bean Hopper Securing Post per Grinder Installed
- Franke Multi-tool
- 4 Spare Upper Piston O-Rings
- Drain Hose
- Hose Clamp (for securing the drain hose to the drip tray)
- Cleaning Tablet Chute
- Cleaning Tablets
- Cleaning Brush
- Water Supply Hose
- Milk Cleaning Solution and CF Brush set (if the machine is a 1-Step)
- Operators Manual
- 1 Install Card, 1 Adjust Card, 1 Download Card (located behind coffee outlet door)

Water Requirements

A special fitting is installed at Franke Coffee Systems North America to accommodate a 3/8" compression water line. A dedicated water line with its own shut-off valve should be placed within four feet of the machine's installation location. The shut-off valve should be equipped with a male 3/8" compression fitting.

CAUTION! THE WATER INLET VALVE ON THE SINFONIA IS PLASTIC. USE CAUTION TO AVOID CROSS-THREADING THE FITTING WHEN RE-INSTALLING THE WATER LINE.

Virtually no public or private water supply is free from tastes, odors and hardness that can lead to unsatisfactory drink quality as well as damage to the espresso machine. Ensure the water feeding into the machine is filtered and softened using a high quality product.

Franke Coffee Systems recommends the H2O for Espresso System. It filters the water to remove unpleasant tastes and odors, softens the water through cation exchange, and neutralizes pH, supplying water that is best suited for brewing espresso.

Franke Coffee Systems can perform water tests to determine the proper H2O for Espresso system for the required installation.

ENSURE ALL SOFTENING/FILTERING CARTRIDGES HAVE BEEN ADEQUATELY FLUSHED BEFORE RE-SUPPLYING WATER TO THE MACHINE.

Power Requirements

All 1 and 2 Step Evolutions require a 220V single phase power receptacle with a 30amp breaker. A L6-30 plug is supplied.

Drainage Requirements

Ensure the drain hose provided with the machine runs downhill to an appropriate floor drain.



PRE-INSTALLATION CHECKLIST

Franke Evolution 1-Step Standard Espresso Machine

*****See also: Installation Guidelines diagram*****

Work Order #

LOCATION:

INSTALLER / PHONE NUMBER:

The following onsite requirements must be ready prior to the arrival of the equipment installer. Please check each box and obtain the store manager's signature verifying that all requirements have been met.

**The installer will be notified of a tentative date for this upcoming installation.*

**Espresso Specialists is not financially responsible for trips to sites that do not meet pre-installation requirements.*

Electrical Requirements

- ☐ 208–240 volt, 50/60 hz, single phase power on its own 30 amp circuit breaker
- ☐ An L6-30R receptacle within 3' of the machine's installation location
An L6-30P plug is included with the machine
- ☐ 110 volt, 15 amp power (for the refrigerator), plug included
- ☐ Power is operational

Plumbing Requirements

- ☐ 3/8" cold water supply with shutoff valve within 5' of machine's installation location
- ☐ Water supply is operational
- ☐ Floor drain in place within 5' of machine
A 3/8" flexi drain line is included with the machine
- ☐ Appropriate water filtration connected and active –
****Water must be softened to a maximum 3 - 5 grain hardness level***

Height, Width, and Depth Requirements

- ☐ Machine is 23"W x 31"H x 24"D
- ☐ Minimum 5" of clearance above the grinders

Countertop Requirements

- ☐ 2 1/2" diameter hole for utility lines drilled into countertop beneath machine's installation location

Additional Requirements

- ☐ Coffee
- ☐ Milk onsite

Store Manager's Signature: _____ **Date:** _____

Print Name: _____

*****If machine is shipped to store, DO NOT UNPACK*****

Machine should only be unpacked by installer at time of installation, as many small parts are included inside box

With questions regarding installation coordination, please contact:

Franke Coffee Systems
North America, Inc.
5601 1st Avenue South
Seattle, WA 98108

800.367.0235 x13 tel
206.784.8804 fax

Water Filtration / Water Conditioning



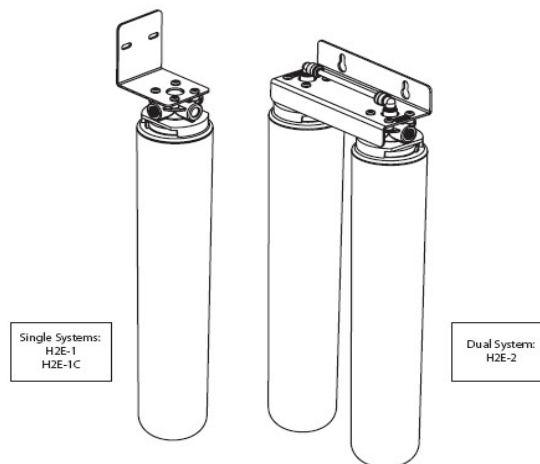
After 25 years of battling the ill effects of corrosive water on its customers' espresso machines, Franke Coffee Systems North America finally found a product that would address the issue with a minimal impact on taste profiles. The solution, Franke Coffee System's H2O for Espresso™, comes from European technology - similar systems have been successful in Europe, where water is notoriously hard, for years.

Unlike other products on the U.S. market, H2O for Espresso is designed to maintain some hardness in the water in order to retain the flavor and texture needed for great espresso taste. Stripping the water too far can also create aggressive water that corrodes machines by literally pulling minerals from the metal.



H2O for Espresso™

- Neutralizes pH, reducing particulates' ability to bind inside the espresso machine and creating better tasting espresso (in extreme cases) by removing sharp flavor characteristics from the water
- Reduces total dissolved solids (TDS) that build up inside the espresso machine
- Diminishes chlorine taste and odor
- Removes 2400 grains of hardness per cartridge



Facts & Figures

H₂O for Espresso™: Facts & Figures

The H2O for Espresso system is customizable based on water quality and projected volume use. Two types of cartridges are used: one combines water softening and carbon filtration; the other provides carbon filtration only (for areas with water under five grains of hardness). Based on the water conditions at each espresso machine installation and volume projections, Franke and its service experts across the U.S. prescribe an H2O for Espresso system.

On installation, H2O for Espresso retails for \$235 for a single-head unit or \$368 for a double-head unit (service technician charges are extra). Replacement cartridges retail for \$145. H2O for Espresso cartridge replacement fits a quarterly preventative maintenance schedule, and Franke has made it an optional addition to its Preventative Maintenance (PM) Program.

Recommended Replacement Changeout Indicators

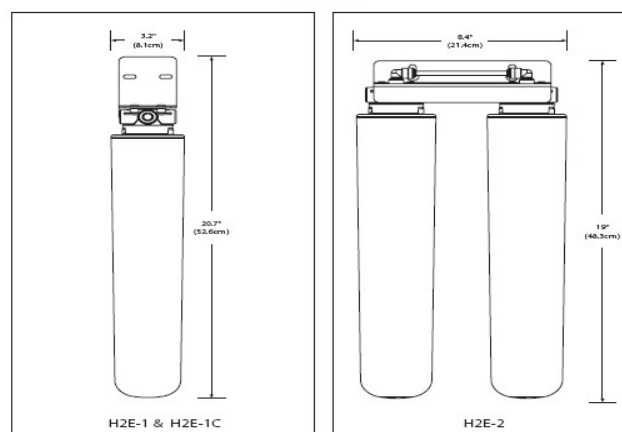
Cartridges should be changed on or before the predicted end of life. To calculate minimum changeout period use the following:

H2E-1			H2E-2		
Incoming Hardness gpg (ppm)	Total Capacity gallons (liters)	Number of 2 oz. Shots	Incoming Hardness gpg (ppm)	Total Capacity gallons (liters)	Number of 2 oz. Shots
3 (50)	730 (2,764)	46,720	3 (50)	1,460 (5,527)	93,440
6 (100)	365 (1,382)	23,360	6 (100)	730 (2,764)	46,720
9 (150)	243.5 (921)	15,584	9 (150)	487 (1,844)	31,168
12 (200)	182.6 (691)	11,686.4	12 (200)	365 (1,382)	23,372.8
15 (250)	146 (553)	9,344	15 (250)	292 (1,105)	18,688
17 (300)	121.7 (461)	7,788.8	17 (300)	243 (920)	15,577.6
20 (350)	104 (395)	6,656	20 (350)	208 (787)	13,312

Based on alkalinity at 120 ppm, TDS at 200 ppm, pH at 8.0, 75% reduction of incoming hardness.

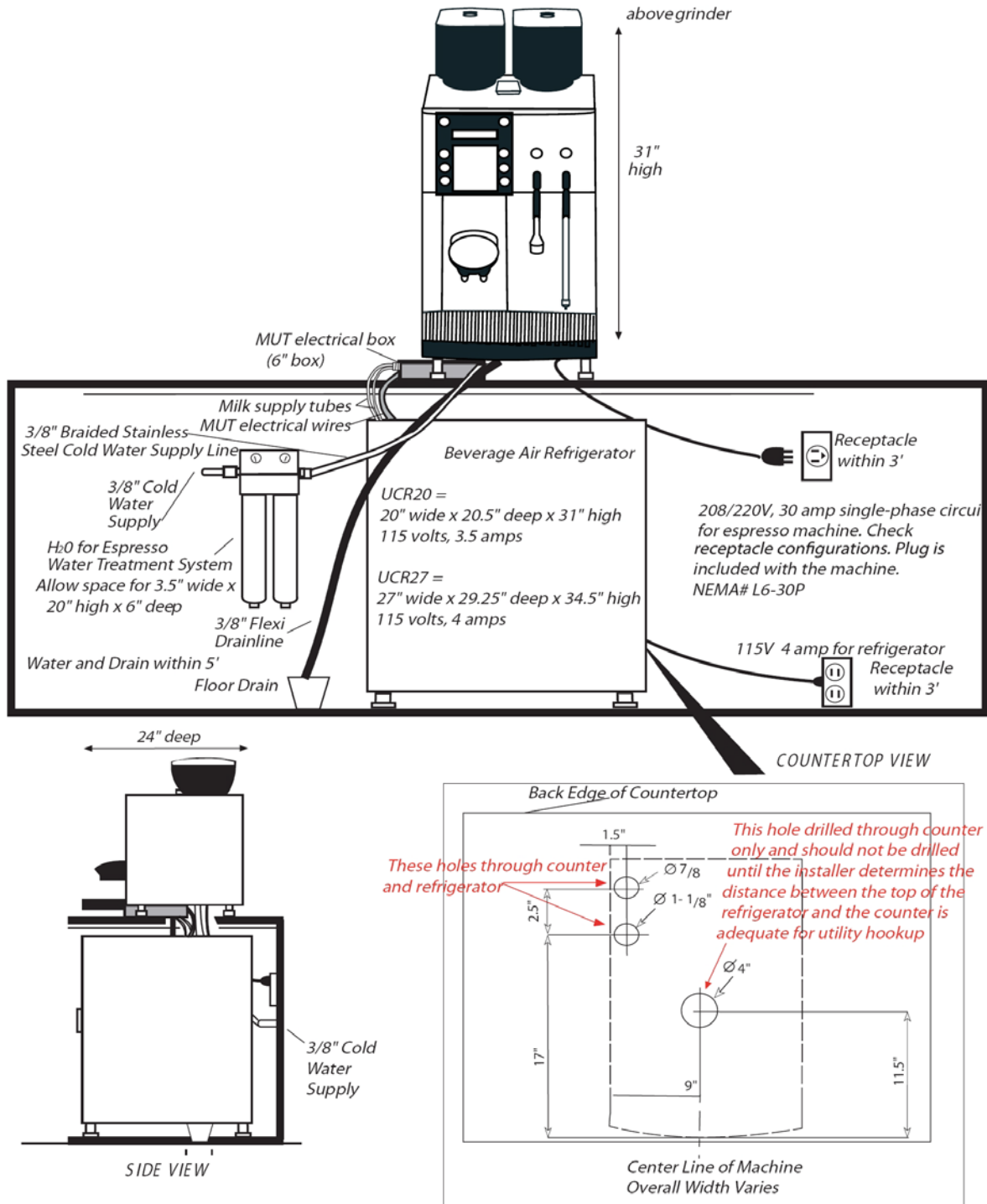
Note: H2E-1C is rated for 10,000 gallons (37,854 liters) of chlorine taste and odor reduction.

Dimensions

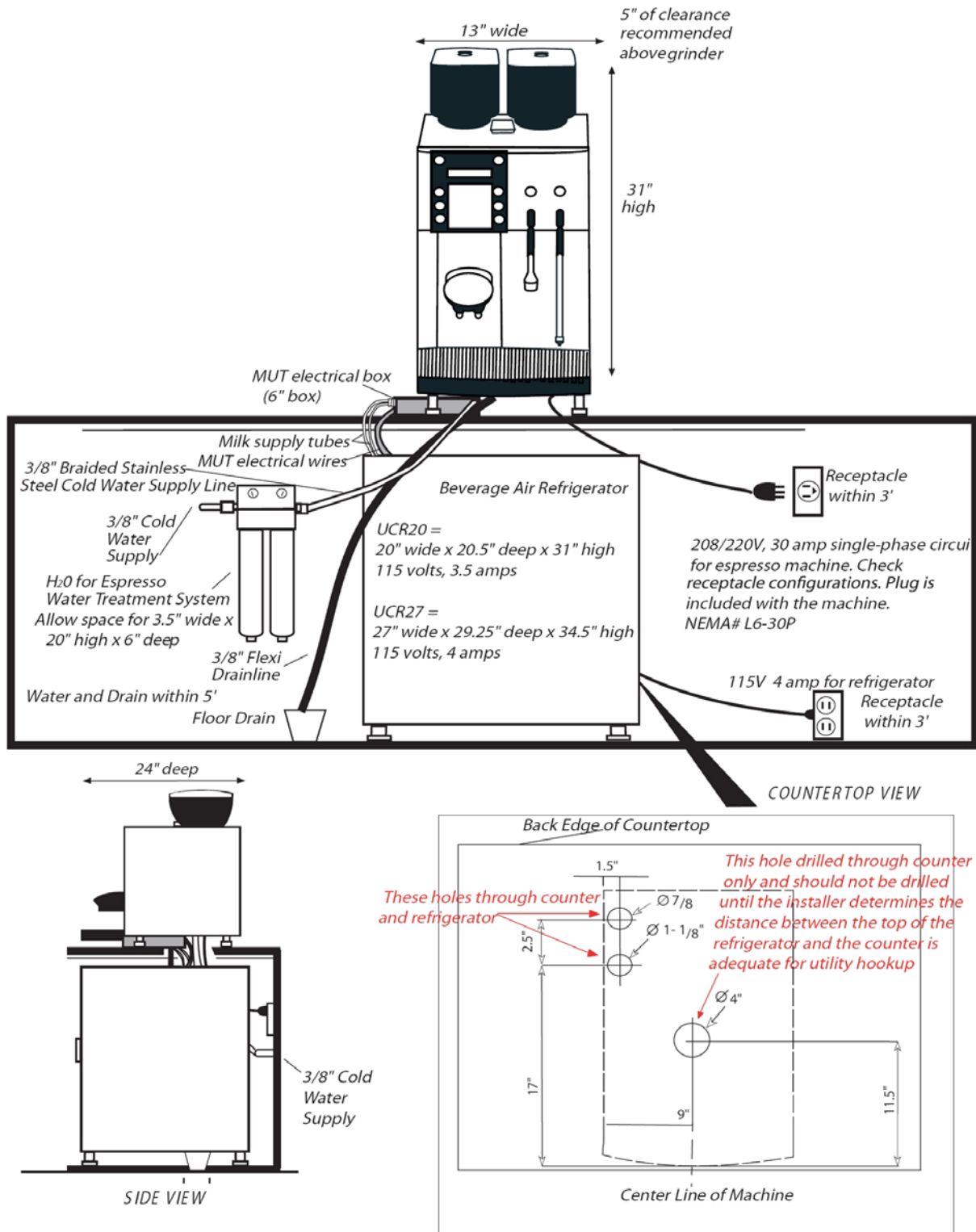


Installation Guidelines

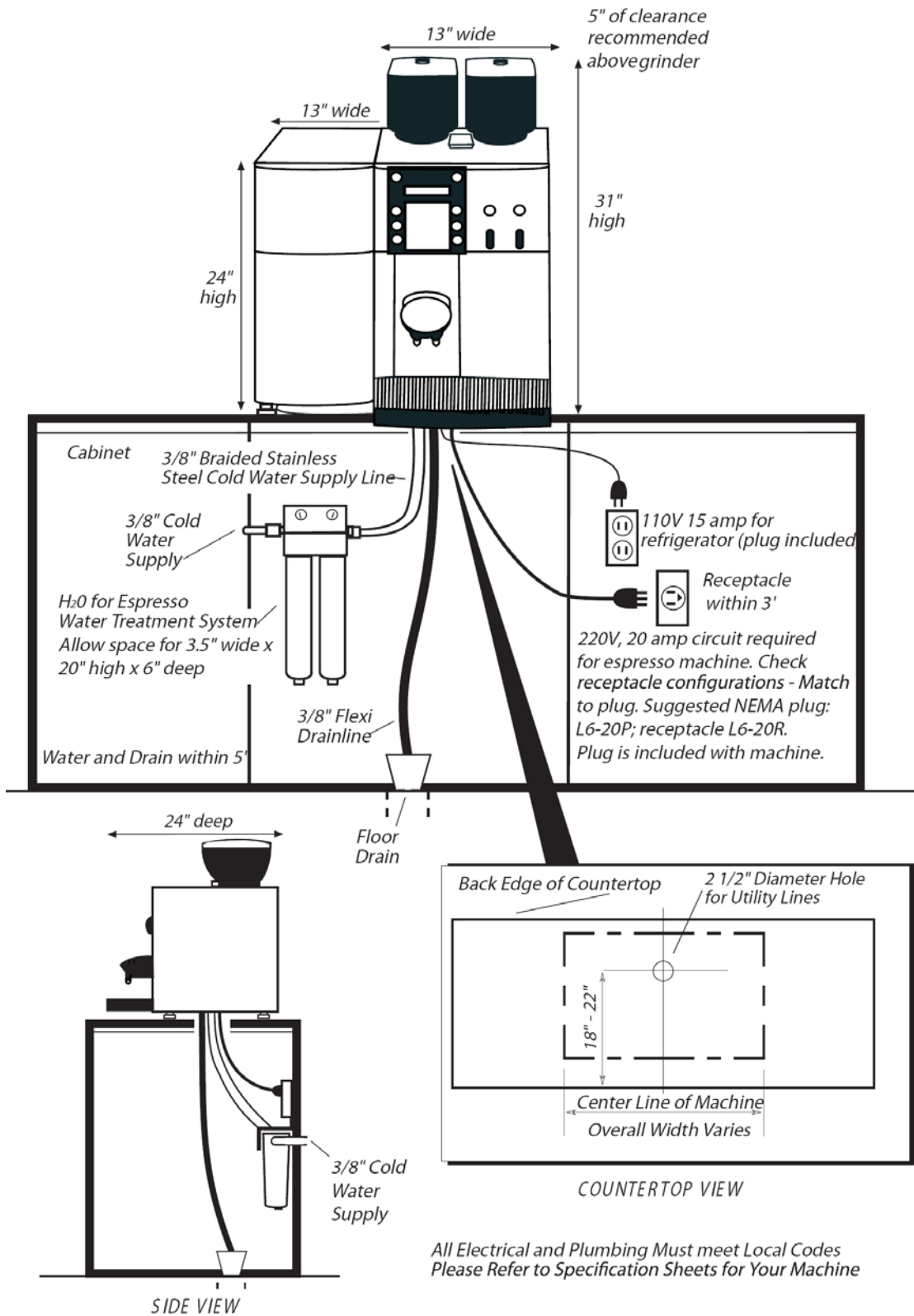
Evolution 1-Step



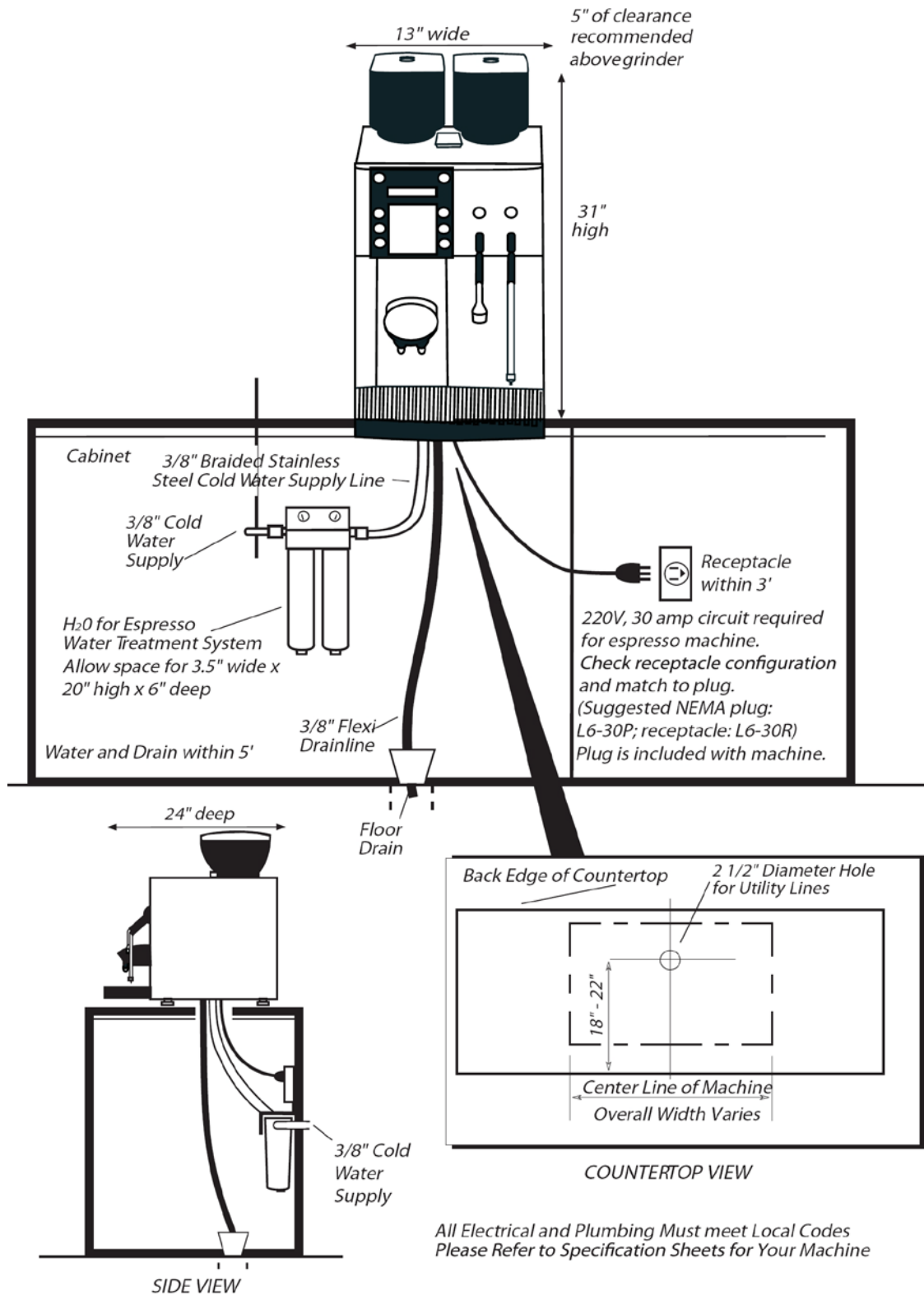
Evolution 1-Step MUT



Evolution 1-Step Self-Service Version



Evolution 2-Step



Turning the Evolution on for the first time

Once the machine has been properly installed:

1. Plug the machine into the wall outlet.
While the machine is connected to the power supply but still turned off, the display will show the following message: Energy Save Mode along with Date and Time

Energy Save Mode
xx.xx.xxxx / xx.xx

2. Turn on the main water supply.

3. Turn the machine on by pushing and releasing the ON/OFF button. The display will illuminate and display the Powerup message followed by the # symbol to indicate that the machine is filling with water.

Powerup
Evolution 01.00.00

Powerup
Evolution 01.00.00

4. Once the boiler has filled to the proper level, the display will change to the following: Heating Locked selection. The heating elements are now activated, heating the water in the boiler.

Heating *
Locked selection

During the heating phase of the start-up cycle, the steam arm and hot water wand will open approximately every two minutes.

USE EXTREME CAUTION WHEN NEAR THE STEAM ARM AND HOT WATER WAND OUTLETS TO AVOID PERSONAL INJURY

1. Once the proper steam pressure has been reached, the display will change to the following message.
Please select

Please select
xx.xx.xxxx / xx.xx

The machine is now ready for drink production.

Operating the Evolution

Preparing coffee products.

Fresh ground coffee products

1. Adjust the coffee outlet to the proper height.
2. Place the appropriate cup(s) under the coffee outlet.
3. Press the desired product button.
4. The display will show:

Espresso
draw 1 / presel.1

***Depending on the programming, several products can be preselected.**

***Hot water or steam can be dispensed while the product is being prepared.**

***To cancel drinks press the clean button.**

Pre-ground coffee products

1. Adjust the coffee outlet to the proper height.
2. Place the appropriate cup(s) under the coffee outlet.
3. Press the desired product button.
4. The display will show:
5. Place pre-ground coffee into the filling hopper.
6. Press the selected product again.
7. The display will show:

Espresso
Fill pregrd.coffee

Espresso
draw 1 / presel.1

***Manual coffee dispensing cannot be preselected.**

***Hot water and steam can be dispensed while the product is being prepared.**

Dispensing hot water.

1. Place a cup under the hot water nozzle.
2. Press the hot water button.

***If the hot water volume has not been programmed, simply push the hot water button again to stop the flow of water.**

Preparing milk with the steam wand.

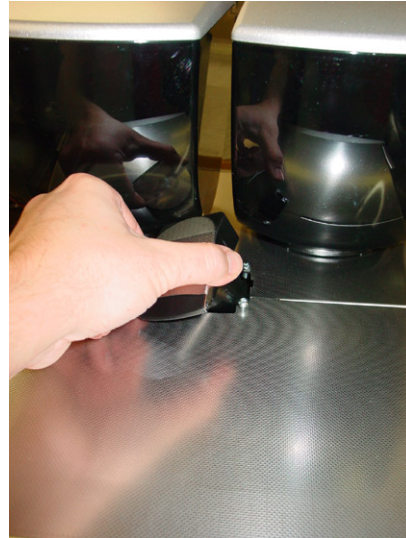
1. Place the steam wand tip into the pitcher of milk.
2. Press the steam button.
3. When the desired temperature or result is reached, press the steam button again to stop the flow of steam.

***If the machine is equipped with auto-steam, the steam will shut off at the pre-programmed temperature**

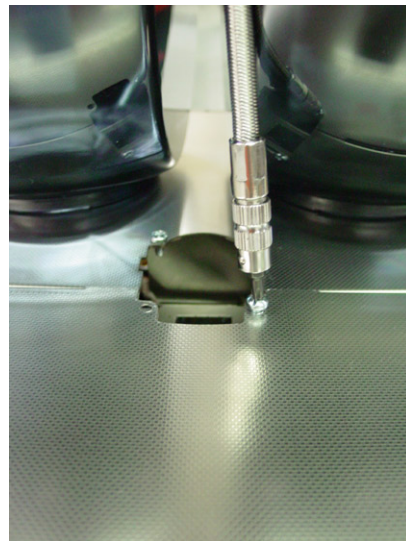
Adjusting the Grind

The Evolution grinders can be adjusted without removing the hoppers. To adjust the grind, perform the following:

1. Remove the cleaning tablet chute by pressing the two latches and lifting it up



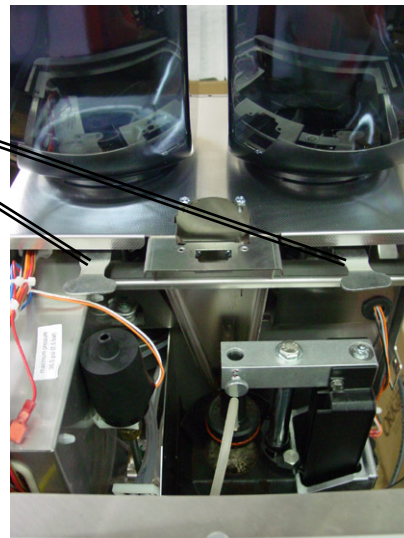
2. Remove the two #20 Torx screws from the front top panel.



3. Remove the panel from the machine by lifting from the center where the hole for the cleaning tablet chute is.



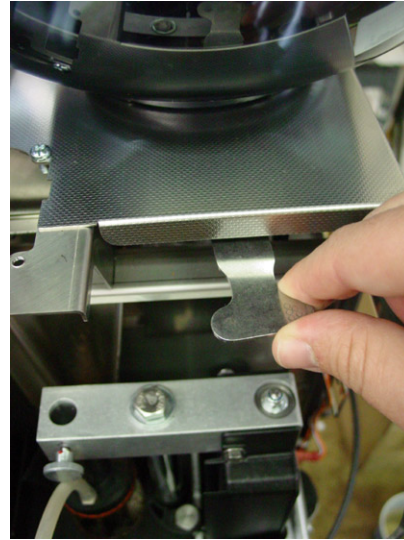
4. Locate the grind adjust lever on the grinder you wish to adjust.



5. Rotate the lever to the right to adjust the grind coarser for a faster extraction time.



6. Rotate the lever to the left to adjust the grind finer for a slower extraction time.



Note: Adjustment of the grinders is very minute. Generally, you would adjust the grinder 1-2 positions if the grind is within 5-8 seconds out of adjustment. If the extraction time of the shot is more than 8 seconds out of the ideal time range, adjust the grind 3-5 positions.

Once the ideal extraction time has been achieved, replace the top panel, and re-secure with the two #20 Torx screws. Replace the cleaning tablet chute, resume operation of the machine.

Rinsing the Evolution

The machine is programmed with an automatic rinse feature which will rinse the brew and/or milk circuit at a specified time after last production.

Double tapping the clean the clean button will initiate a manual rinse.

2x

Clean

Cleaning the Evolution

Cleaning Cycle

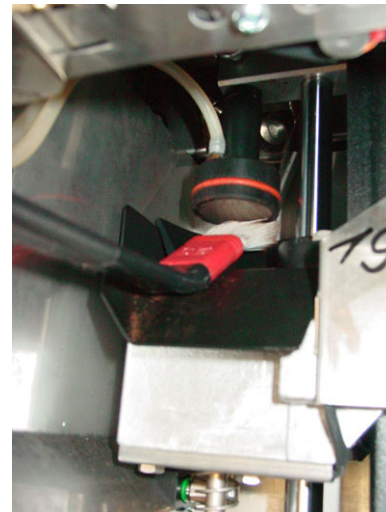
1. Push and hold down the “Clean” button for approximately 3 seconds.
The display will change to:

Cleaning Empty drawer

2. Within 20 seconds open the grounds container door by lifting the water and steam outlets and pushing on the upper left-hand corner of the grounds door.



3. Brush off the micro-sieve on the upper piston using the long cleaning brush.



4. Clean off the grounds slide using the long cleaning brush.



5. After emptying and cleaning out the grounds container, insert the grounds container and close the door. The display will change to:

Cleaning
Insert tablet



6. Lift up the metal flap on the tablet chute and drop a cleaning tablet into the chute.
7. After dropping the tablet into the chute, press and release the "Clean" button to initiate the remainder of the cleaning cycle.

The display will show the time remaining until the clean cycle is complete.



8. If the machine is a 1-Step, the display will prompt you to fill the milk container with cleaning solution. Once this is accomplished, press the "Clean" button to initiate cleaning of the milk foamer.

Cleaning
Fill cleaner

9. After the cleaning of the milk system is finished, the display will prompt you to fill the milk container with water for the rinse cycle. Empty the cleaning solution and rinse the milk container with warm water. Fill the container with water. Once this is accomplished, press the "Clean" button to initiate the rinsing of the milk foamer.

Cleaning
Rinse



The display will show the time remaining until the clean cycle is complete

Manual Cleaning of the CF/CF2 Foaming Unit

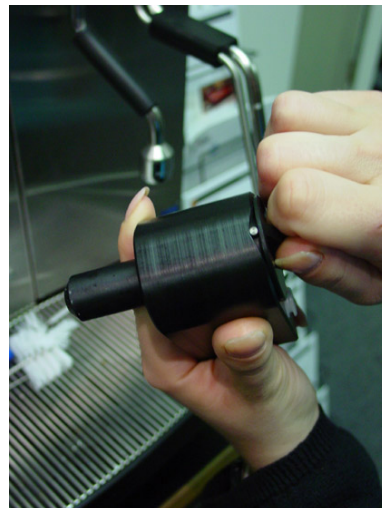
Remove the coffee outlet by press down on the circle located on the top of the outlet and pull straight back.



Grasp the CF/CF2 foaming unit and pull out to remove.



Remove the venturi cap by twisting it.



Using the brush set, clean out the venturi.



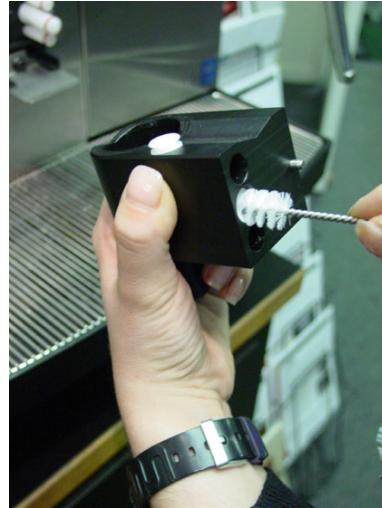
Clean the milk outlet.



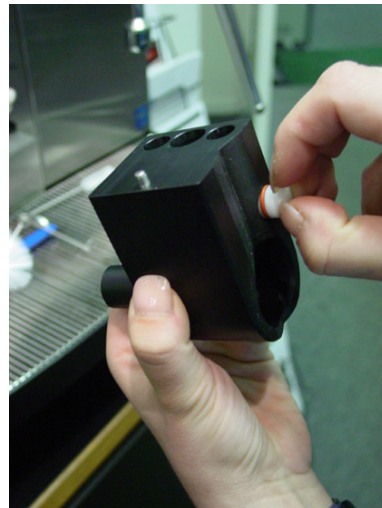
Clean the couplings on the outlet door.



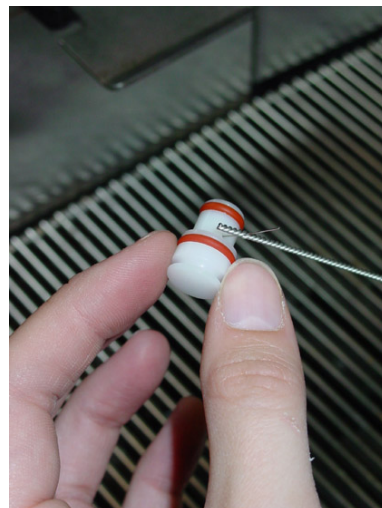
Clean the steam coupling inlets and the milk coupling inlets with the small brush.



Remove the air restrictor with the check valve and clean with the small brush.



Using the wire on the brush set, clean the restrictor.



Franke Evolution

Technical Training Manual

Repairs / Preventive Maintenance – Chapter 3



Franke Coffee Systems
800 Aviation Parkway
Smyrna, TN 37167
(615) 462-4000

Change log

Date	Changes	Author	Change No.	ID
2012-01-18	New Manual Concept	MPH		

Publisher:

Franke Kaffeemaschinen AG
P.O. Box 235
CH-4663 Aarburg
Switzerland

www.franke-cs.com

Table of Contents

Change log	2
Table of Contents	3
Safety Notes	4
Preventive Maintenance	5
Grinder	6
Replacing Grinder Burrs	6

Safety Notes

The installation, setting, repair and maintenance work described in these instructions must be performed only by service technicians trained by Franke Coffee Systems North America Inc. and when using original Franke parts!

Observe the following dangers and warnings when servicing coffee machines with live voltage.

DANGER

DANGER!
Mortal Danger!
Electrocution caused by coming in contact with live voltage.
Safeguard parts with live voltage against contact.

WARNING

WARNING!
Indicates risk of injury!
You may suffer injuries due to moving parts crushing fingers and hands.
Secure moving parts against unintentional movement.

CAUTION

CAUTION!
Indicates risk of minor injury!
Avoid burns caused by hot water, steam, hot milk, or milk foam

NOTE

NOTE!
Indicates possibility of damage to the machine.

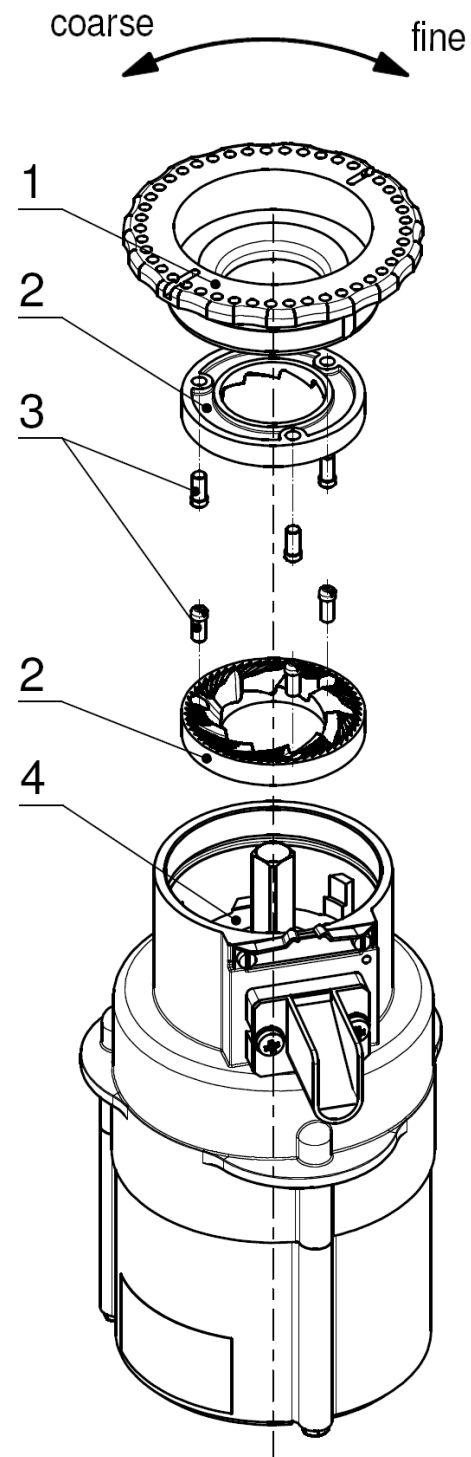
Preventive Maintenance

Preventive Maintenance Schedules / Checklist

Grinder

Replacing Grinder Burrs

1. Disconnect power supply from the coffee machine, stop bean flowing into the grinder and remove the bean hoppers. Remove the upper panel. If necessary, remove the grinder from the coffee machine.
2. Remove the grind adjust levers.
3. Turn stationary discs flange [1] counter-clockwise and take it off.
4. Unscrew the grinding discs [2] (3 screws [3]) from the stationary- and rotary disc flanges. To block the rotary disc flange [4], insert a plastic tool/rod into the exit hole.
5. Use a decent brush to clean the surfaces of the flanges. Remove all coffee particles or dust from the thread and than lubricate it by applying food grade grease.
6. Assemble new grinding discs [2] on the cleaned rotary- and stationary disc flanges and tighten screws carefully.
7. Reinstall the stationary disc flange [1] (avoid touching of the grinding discs) by turning the stationary disc flange clockwise until the noise of touching grinding discs appears.
8. Increase the grinding disc clearance by turning the stationary disc flange counter-clockwise approx. 12 notches. (For Espresso approx. 8-10 notches)
9. Install the grind adjust levers to the stationary disc flange.
10. Install the upper panels. Install the bean hoppers.
11. Connect the coffee machine to power supply.



Franke Evolution

Technical Training Manual

Troubleshooting Error Codes – Chapter 4



Franke Coffee Systems
800 Aviation Parkway
Smyrna, TN 37167
(615) 462-4000

Change log

Date	Changes	Author	Change No.	ID
2012-01-18	New Manual Concept	MPH		

Publisher:

Franke Kaffeemaschinen AG
P.O. Box 235
CH-4663 Aarburg
Switzerland

www.franke-cs.com

Table of Contents

Change log	2
Table of Contents	3
Display Messages	4
Troubleshooting Guide	6
Error Messages on Display.....	6
Changing the CPU Board	19

Display Messages

Following is a list of the more common display messages. A complete list of the error code messages can be found in the troubleshooting guide.

This message is displayed for a few seconds when the machine is initially turned on

Power up
Evolution 01.00r00

A pounds sign on the left hand side of the display indicates that the boiler is filling with water.

Power up
Evolution 01.00r00

The Asterisk on the right side of the display appears when the heater is switched on. Drink production is not possible.

Locked selection
heating.... *

The machine is now ready for drink production.

Please select
2008-09-28 / 9.24am

This message is displayed when a drink has been selected. The machine is producing or "drawing" the first drink of one drink selected.

Select product
draw 1 presel. 1

The coffee outlet is not installed or not installed correctly while the machine is operational.

Locked selection
missing outlet

When the grounds chute door is opened while the machine is operational. empty the drawer before closing the door.

Door open
Empty drawer

When the pre-programmed number of cycles has been produced, the machine will prompt the user to run a cleaning cycle.

Please clean
2008-09-28 / 9.24am

If the end user has not cleaned the machine before the pre-programmed amount of cycles before lock-out, the display will continue to show the "Please clean" message along with the Locked message. If a product is selected, an audible beep will be heard. Drink production is locked.

Please clean
coffee locked

There is a blockage or restriction in the water flow of the brewing circuit. The most common fault is a dirty or clogged upper piston. Wipe the piston off and initiate a clean cycle.

Error flowmeter
2008-09-28 / 9.24am

The grounds container is 10 products from being full and should be emptied soon.

Drawer full
2008-09-28 / 9.24am

If the end user does not empty the grounds container, the display will continue to display the "Empty drawer" message followed by "Code

Empty drawer
coffee locked

The machine did not reach operational pressure within a specified timeframe. Troubleshoot the heating circuit.

23, 24
Heater timeout

The steam boiler did not fill with water within a specified timeframe. Troubleshoot the autofill circuit.

32
Steam supply

The piston motor is not operating properly.

40, 46
Motor timeout

If the chip card is inserted improperly or the chip card or reader is damaged, the display will show the "Chipcard read". Ensure the card is inserted properly, with the gold chip facing the machine.

50, 54
Chipcard read

If a chipcard that is not associated with the Evolution is inserted into the card reader, the display will show the "Chipcard ident" message followed by the appropriate code.

51, 52, 53, 55
Chipcard identify

If the milk container runs low on milk, the display will show the "No milk" message. You can generally make approximately 3 more drinks before the machine locks you out of production, evident by an audible beep if a milk product is selected.

130
No milk

Bean hopper is empty or the coffee grounds are not filling in the brewing chamber. Fill the hopper with beans and push the selected product again.

120
Out of beans

Troubleshooting Guide

Error Messages on Display

Symptoms	Possible Reasons	Check	Solution
Error code 2 Missing coffee outlet <i>All functions are disabled if the outlet is missing</i>	Coffee outlet not installed properly. Microswitch is not closing.	Ensure the outlet is installed properly. The plastic tab on the back of the coffee outlet should actuate the microswitch when installed.	Push on the top of the outlet to make sure the switch is being activated. Replace the outlet if the plastic tab is damaged or missing.
	Microswitch signal is faulty, wires damaged.	Troubleshoot the microswitch for proper operation.	Replace the switch if faulty.
Error code 3 Door open <i>All functions are disabled if the grounds door is open</i>	Grounds door not closed. Microswitch is not closing.	Ensure the door is closed properly. The metal ab at the top of the door should actuate the microswitch when closed.	Re-align the metal tab if needed. Re-align the microswitch if needed.
	Microswitch signal is faulty, wires damaged.	Troubleshoot the microswitch for proper operation.	Replace the switch if faulty.
Error code 4 Wrong Flash address	Serious error has occurred during the flash process. The flash address was invalid.	Check communications cable. Check computer for proper function. Install the newest Service Tool software version.	Re-install the newest software version using Service Tool. Alternatively replace the CPU and install newest software version using Service Tool.
Error code 5 Flash writing error	Serious error has occurred during the flash process. The flash address was invalid.	Check communications cable. Check computer for proper function. Install the newest Service Tool software version.	Re-install the newest software version using Service Tool. Alternatively replace the CPU and install newest software version using Service Tool.
Error code 10 Temperature sensor 1	Wiring damaged causing a short circuit.	Follow the wiring checking for damage	Replace/repair damaged wiring.
	Coffee boiler thermostat is short-circuited/faulty.		Replace the thermostat.

Symptoms	Possible Reasons	Check	Solution
Error code 11 Temperature sensor 1	Coffee boiler thermostat is interrupted, not connected properly, missing.	Ensure the 2-pin male connector (black wires) is installed securely to the 2-pin female connector (white wires). This connector is located behind the rear right hand panel.	Push the connectors together. Replace the pins/wiring if found to be faulty.
Error code 12 Temp difference 1 <i>No temperature increase in the coffee boiler has been detected after a specific period of time.</i>	Coffee boiler thermostat is faulty or not connected properly	Ensure the 2-pin male connector (black wires) is installed securely to the 2-pin female connector (white wires). This connector is located behind the rear right hand panel.	Push the connectors together. Replace the pins/wiring if found to be faulty.
	Heating element circuit is faulty. Heater relays is faulty.	Check the heating element klixons for a tripped switch.	Reset or replace the klixons
		Check heater relays for proper operation using your install card in the check outputs parameter.	Replace the heater relays if faulty.
		Check the heating element wiring for damage and proper connection.	Repair damaged wiring.
		Check the heating element for proper operation.	Replace the heater element if found to be faulty.
Error code 13 Overheating 1 <i>The water temperature in the coffee boiler exceeded 120°C.</i>	Coffee heating relay stuck in the closed position.	Check the heater relay for sticking due to carbon build-up.	Replace relay if found to be faulty.
Error code 14 Temperature sensor 2 <i>only for EII H</i>	Wiring damaged causing a short circuit.	Follow the wiring checking for damage	Replace/repair damaged wiring.
	HW boiler thermostat is short-circuited/faulty.		Replace the thermostat.

Symptoms	Possible Reasons	Check	Solution
Error code 15 Temperature sensor 2 <i>only for EII H</i>	HW boiler thermostat is interrupted, not connected properly, missing.	Ensure the 2-pin male connector (black wires) is installed securely to the 2-pin female connector (white wires). This connector is located behind the rear right hand panel.	Push the connectors together. Replace the pins/wiring if found to be faulty.
Error code 16 Temp difference 2 <i>No temperature increase in the hot water boiler has been detected after a specific period of time. only for EII H</i>	HW boiler thermostat is faulty or not connected properly	Ensure the 2-pin male connector (black wires) is installed securely to the 2-pin female connector (white wires). This connector is located behind the rear right hand panel.	Push the connectors together. Replace the pins/wiring if found to be faulty.
	Heating element circuit is faulty. Heater relays is faulty.	Check the heating element kluxons for a tripped switch.	Reset or replace the kluxons
		Check heater relays for proper operation using your install card in the check outputs parameter.	Replace the heater relays if faulty.
		Check the heating element wiring for damage and proper connection.	Repair damaged wiring.
		Check the heating element for proper operation.	Replace the heater element if found to be faulty.
Error code 17 Overheating 2 <i>The water temperature in the HW boiler exceeded 120°C.</i>	HW heating relay stuck in the closed position.	Check the heater relay for sticking due to carbon build-up.	Replace relay if found to be faulty.
Error code 18 Temperature sensor 3 <i>The Autosteam probe is short-circuited/faulty.</i>	Autosteam probe is not returning the correct value to the CPU. Value too low.	Check the wiring from the Autosteam probe to the CPU board for damage or shorting to ground.	If wiring is damaged, replace the Autosteam probe.

Symptoms	Possible Reasons	Check	Solution
Error code 19 Temperature sensor 3 <i>The Autosteam probe is not connected properly.</i>	Autosteam probe is not returning the correct value to the CPU. Value too high.	Check the wiring from the Autosteam probe to the CPU board for damage or open loop. Check the connection of the probe on the CPU board.	If wiring is damaged, replace the Autosteam probe.
Error code 22 Heater timeout 1 <i>The coffee boiler did not reach operational temperature within a specific time.</i>	Heating element circuit is faulty.	Check the heating element klixons for a tripped switch.	Reset or replace the klixons.
		Check heater relays for proper operation using your install card in the check outputs parameter.	Replace the heater relays if faulty.
		Check the heating element wiring for damage and proper connection.	Repair damaged wiring.
		Check the heating element for proper operation.	Replace the heater element if found to be faulty.
Error code 23 Temperature sensor <i>The hot water/steam boiler did not reach operational temperature within a specific time.</i>	Heating element circuit is faulty.	Check the heating element klixons for a tripped switch.	Reset or replace the klixons.
		Check heater relays for proper operation using your install card in the check outputs parameter.	Replace the heater relays if faulty.
		Check the heating element wiring for damage and proper connection.	Repair or replace the damaged wiring.
		Check the heating element for proper operation.	Replace the heater element if found to be faulty.

Symptoms	Possible Reasons	Check	Solution
Error code 23 Temperature sensor <i>The hot water/steam boiler did not reach operational temperature within a specific time.</i> (continued from previous page)		Check the pressure switch for proper operation.	Replace the pressure switch if found to be faulty.
Error code 30 Water supply <i>The coffee boiler did not fill within 300 seconds.</i>	Water is not reaching the coffee machine.	Ensure the water line is turned ON and the quick-release is connected properly.	Turn on the water. Push the quick-release connectors together.
		Check the water line for kinking/pinching.	Allow for free movement in the water line.
		Check the mains valve for proper operation using the install card in the check outputs parameter.	Replace the mains valve if found to be faulty.
		Check the flowmeter for blockage by removing it and cleaning the inlet and outlet sides.	Replace the flowmeter if found to be faulty.
		Check the inlet elbow on the coffee boiler for blockage.	Replace the inlet elbow if found to be faulty.
Error code 31 Water feed <i>The flowmeter reached 3000 pulses.</i>	Water flow does not stop. Flowmeter continues to send signal to CPU board. Water leak somewhere in the coffee water system.	Check the water system for leakage inside the machine. Check to drip tray for signs of water flow. Check the overpressure release valve water flow.	Repair leak, replace parts as needed.
Error code 32 Steam supply <i>The steam boiler did not fill within 240 seconds.</i>	Water is not reaching the coffee machine.	Ensure the water line is turned ON and the quick-release is connected properly.	Turn on the water. Push the quick-release connectors together.
		Check the water line for kinking/pinching.	Allow for free movement in the water line.

Symptoms	Possible Reasons	Check	Solution
Error code 32 Steam supply <i>The steam boiler did not fill within 240 seconds.</i> (continued from previous page)		Check the mains valve for proper operation using the install card in the check outputs parameter.	Replace the mains valve if found to be faulty.
		Check the feeding valve for blockage and proper operation using the install card in the check outputs parameter.	Replace the feeding valve / plunger if found to be faulty.
		Check the inlet elbow on the steam boiler for blockage.	Replace the inlet elbow if found to be faulty.
Error Code 40 – brewing motor did not startup within 0.5 seconds of the command (no increase in current). Error Code 41 – brewing motor was switched on for >30 seconds while being moved down, is at lower end-point. Error Code 42 – brewing motor was switched on for >30 seconds while being moved up, is at upper end-point. Error Code 43 – brewing motor was switched on for too long during brewing, rinsing or cleaning.	Faulty wiring on the brew unit.	Check the wiring from the power board to the brew unit for damage and proper connection.	Repair or replace the wiring if found to be damaged.
	Brew unit blocked due to excessive coffee build-up in the brew chamber.	Check the brew chamber for coffee build-up.	Clean the brew unit and re-adjust the coffee chute for proper alignment.
	Mechanical binding in the brew unit.	Check the brew unit for proper operation using the install card in the check outputs parameter.	Re-adjust the brew unit if binding occurs. Replace the brew unit if this does not solve the problem.
		Check the spindle for proper movement/lubrication.	Lubricate the spindle using the spindle oil (301340).
	Position switch not connected or defective.	Check the microswitch positioning on the brewing unit.	Adjust the microswitch accordingly. Replace the microswitch if found to be faulty.
Error Code 44 – brewing motor reached an end-point during calibration. Increase in current was measured for >0.3 seconds by AD630.	Position switch not connected or defective.	Check the microswitch positioning on the brewing unit.	Adjust the microswitch accordingly. Replace the microswitch if found to be faulty.

Symptoms	Possible Reasons	Check	Solution
Error code 50 Chipcard read <i>An error occurred while reading the header info.</i>	Chipcard dirty. Chipcard reader dirty.	Check the Chipcard for dirty or damaged chip.	Clean Chipcard and Chipcard reader. Erase Chipcard (except Install Card). Replace Chipcard if found to be faulty.
	Chipcard reader defective.	Check Chipcard reader for possible damage.	Clean Chipcard reader. Replace Chipcard reader if found to be faulty.
Error code 51 Chipcard ident <i>Invalid manufacturer code.</i>	RID is invalid. Card cannot be used for Evolution.		Use correct Chipcard for Evolution
Error code 52 Chipcard ident <i>Invalid manufacturer code.</i>	PIX is invalid. Card cannot be used for Evolution.		Use correct Chipcard for Evolution
Error code 53 Chipcard ident	This type of card is not supported by Evolution.		Use correct Chipcard for Evolution
Error code 54 Chipcard ident <i>An error occurred while reading the data block</i>	Chipcard dirty. Chipcard reader dirty.	Check the Chipcard for dirty or damaged chip.	Clean Chipcard and Chipcard reader. Erase Chipcard (except Install Card). Replace Chipcard if found to be faulty.
	Chipcard reader defective.	Check Chipcard reader for possible damage.	Clean Chipcard reader. Replace Chipcard reader if found to be faulty.
Error code 55 Chipcard ident	The installation number is incorrect.	Check the installation number of the coffee machine with Service Tool.	Use the corresponding Chipcard for this machine. Erase Chipcard (except Install Card).
Error code 57 Chipcard write	The Chipcard is no longer useable, because no more error-counter bits are available (max. 3).	Repeated attempts were made to write an incorrect PSC to the card.	Erase Chipcard. Replace Chipcard if found to be faulty.

Symptoms	Possible Reasons	Check	Solution
Error code 58 Chipcard write <i>A Chipcard reader with an incorrect write-protect code is in the reader.</i>	CAUTION! The Chipcard will become unreadable after 8 failed reading, even on a device with the correct code. > Error code 57		
Error code 59 Chipcard write <i>Timeout occurred while writing the card.</i>	Chipcard dirty. Chipcard reader dirty.	Check the Chipcard for dirty or damaged chip.	Clean Chipcard and Chipcard reader. Erase Chipcard (except Install Card). Replace Chipcard if found to be faulty.
Error code 60 Chipcard write <i>A verification error occurred while writing to the card.</i>	Chipcard dirty. Chipcard reader dirty.	Check the Chipcard for dirty or damaged chip.	Clean Chipcard and Chipcard reader. Erase Chipcard (except Install Card). Replace Chipcard if found to be faulty.
Error code 61 Chipcard ident	Chipcard is invalid or unknown.		Use correct Chipcard.
Error code 62 Chipcard ident	Chipcard invalid. Chipcard not initialized or contains unknown data.		Erase Chipcard (except Install Card). Replace Chipcard if found to be faulty.
Error code 63 Chipcard ident	Machine number (serial number) is incorrect > Download Chipcard does not match the machine.		Erase Download Chipcard Replace Download Chipcard if found to be faulty.
Error code 81 EEPROM error	There was a checksum error (CRC).	Re-boot the machine.	Replace CPU if error occurs after re-boot.
Error code 82 EEPROM error	Error occurred while writing.	Re-boot the machine.	Replace CPU if error occurs after re-boot.
Error code 83 EEPROM error	Error occurred while writing. EEPROM is missing or defective.	Re-boot the machine.	Replace CPU if error occurs after re-boot.

Symptoms	Possible Reasons	Check	Solution
Error code 84 EEPROM error	Error occurred while writing.	Re-boot the machine.	Replace CPU if error occurs after re-boot.
Error code 85 EEPROM error	Error occurred while writing. EEPROM is missing or defective.	Re-boot the machine.	Replace CPU if error occurs after re-boot.
Error code 99 Water filter.	Water filter needs to be replaced	Check the settings Water filter (Install Menu 6.2).	Replace water filter and reset the water filter setting (Install menu 6.2).
Error code 100 Empty drawer.	Grounds drawer is full.	Check the grounds drawer and empty.	Empty the grounds drawer.
Error code 101 Drawer full.	Grounds drawer is full. Product selection is blocked.	Check the grounds drawer and empty.	Empty the grounds drawer.
Error code 110 Flowmeter error <i>CPU board is not receiving a signal from the flowmeter.</i>	The flow of water through the brew chamber is restricted.	Check the grinder adjustment.	Turn the grinder adjustment screw to coarse and check the grind weight after the adjustment is done.
		Check the upper piston microsieve for coffee build-up.	Remove the upper piston and clean the microsieve. Replace the sieve if needed.
	Coffee valve is not operating properly.	Check the coffee valve for proper operation using the install card in the check outputs parameter.	Replace the coffee valve if found to be faulty.
	Flowmeter is not operating properly. Blockage inside the flowmeter.	Check the flowmeter for proper operation. Check the flowmeter for blockage by removing it and cleaning the inlet and outlet sides. Check the flowmeter rotor for proper movement.	Replace the flowmeter if found to be faulty.

Symptoms	Possible Reasons	Check	Solution
Error code 120 No beans <i>The upper piston traveled too far into the brew chamber.</i>	Hopper is empty.	Check the hopper to see if it's empty.	Refill with fresh coffee beans.
	Coffee beans not sliding down into the grinder.	Check the hopper to see if the beans are sticking to the sides of the hopper.	Clean the hopper to rid of all the coffee oil residue.
	Coffee slide plugged up with coffee grounds.	Check the coffee slide to see if ground coffee is backed-up inside.	Clean out the coffee slide.
	Grinder not operating properly.	Check the grinder for proper operation using the install card in the check outputs parameter.	Clean the grinder burrs, replace the grinder / capacitor if found to be faulty.
Error code 130 Milk empty.	Milk container is empty.	Check that the milk container is placed in front of the milk level sensor. Check that the label on the milk jugs is not facing the milk level sensor. Check that the milk container is filled with milk	Place milk container in front of milk level sensor. Re-fill milk container
Error code 131 Refill milk	Milk container is almost empty. The products specified in Install Menu 1.25 can still be dispensed.	Check that the milk container is filled with milk	Refill milk container
Error code 160 Empty battery	The back-up battery in the CPU Print is missing or empty.	Check back-up battery on CPU Print	Save product configurations on Downlaod Chipcard. Replace battery on CPU Print. (CR2032)

Symptoms	Possible Reasons	Check	Solution
Error code 161 Invalid timedatas	The RTC is defective or contains incorrect time data (Implausible date/time)	Reconfigure RTC with Install 3.2 & 3.3 Check back-up battery on CPU Print	Save product configurations on Download Chipcard. Replace battery on CPU Print. (CR2032)
Error code 162 RTC Power failure	The RTC was dead and possibly contains incorrect data	Check error 160 & 161 Check back-up battery on CPU Print	Save product configurations on Download Chipcard. Replace battery on CPU Print. (CR2032)
Error code 170 Watercont. empty	The fresh water container is empty of the waste water container is full	Check level in fresh water container and waste water container	Fill up the fresh water container and empty the waste water container
Error code 180 Menu error	Incorrect procedure		
Error code 181 Menu error	No valid menu function available or executable.	This can occur with the Adjust A, B and C if all items are disabled	Program the Adjust menu selection with Service Tool
Error code 200 Communication	CCI/CSI protocol: there was no response from the billing device within the time allowed.	Check communications line between coffee machine and CCI/CSI unit	Replace connection Replace CCI/CSI unit
Error code 201 Communication	CCI/CSI protocol: the data were not transferred within the time allowed.	Check communications line between coffee machine and CCI/CSI unit	Replace connection Replace CCI/CSI unit
Error code 202 Communication	CCI/CSI protocol: the checksum of the data block is invalid		
Error code 203 Communication	CCI/CSI protocol: a request was not understood by the billing device 5 times in a row.	Check communication, restart coffee machine	Replace connection Replace CCI/CSI unit

Symptoms	Possible Reasons	Check	Solution
Error code 210 UART 0 (X11)	Interface 0: Initialisation error, incorrect parity, data bits, stop bit, baud rate		Restart the coffee machine
Error code 211 UART 0 (X11)	Interface 0: Transmission memory overflow		Restart the coffee machine
Error code 212 UART 0 (X11)	Interface 0: Framing error		Restart the coffee machine
Error code 213 UART 0 (X11)	Interface 0: Parity error		Restart the coffee machine
Error code 214 UART 0 (X11)	Interface 0: Receive memory overflow		Restart the coffee machine
Error code 220 UART 1 (X10)	Interface 0: Initialisation error, incorrect parity, data bits, stop bit, baud rate		Restart the coffee machine
Error code 221 UART 1 (X10)	Interface 0: Transmission memory overflow		Restart the coffee machine
Error code 222 UART 1 (X10)	Interface 0: Framing error		Restart the coffee machine
Error code 223 UART 1 (X10)	Interface 0: Parity error		Restart the coffee machine
Error code 224 UART 1 (X10)	Interface 0: Receive memory overflow		Restart the coffee machine
Error code 245	Info: Coffee machine was turned ON		
Error code 246	Info: Coffee machine was turned OFF		
Error code 250	Info: Cleaning cycle was started		

Symptoms	Possible Reasons	Check	Solution
Error code 251	Info: Cleaning cycle was completed		
Error code 252	Info: Appears at every interrupted cleaning cycle		
Error code 254	Info: Grounds door was opened for less than the required 4s at beginning of cleaning cycle		
Error code 255	Info: Grounds door was not opened within the 20s at beginning of cleaning cycle		
Error code 256	Info: customer interrupted cleaning cycle by hand		

Changing the CPU Board

When replacing the CPU board, the new CPU will need to be programmed with the Evolution coffee machine software using the Service Tool 2 software.

Important!

*Make sure that you have the newest Service Tool software available for installation.

*Make sure that you have the newest Sinfonia coffee machine software available for installation.

Important!

Before changing the CPU board, we recommend you back up the Evolution drink configuration file onto your Notebook/PC using the Service Tool 2 software.

1. Connect your Notebook/PC to the Evolution coffee machine
2. Turn the Evolution coffee machine ON
3. Start Service Tool 2 and select Evolution coffee machine
4. Select the "Evolution Configuration" tab
5. Select "Download from Evolution"
6. When download is completed, save the file to your Notebook/PC.
7. Close Service Tool 2
8. Turn the machine OFF
9. Disconnect the machine from the power supply
10. Exchange the CPU board
11. Connect your Notebook/PC to the Evolution coffee machine
12. Reconnect the machine to the power supply
13. Start Service Tool 2 and select Evolution coffee machine
14. Select the "Software (Flash) tab
15. Turn the Evolution coffee machine ON
16. Select the latest Evolution coffee machine software
17. Select "Update Evolution Software!"
18. Wait until the Software installation is completed
19. An acoustic signal occurs (1 long beep, 2 medium beeps and 2 short beeps)
20. The machine will restart
21. The installation is completed
22. Turn the machine back on by pushing the power button
23. Upload the Configuration file using Service Tool 2

Franke Evolution

Technical Training Manual

Programming Instructions – Chapter 6



Franke Coffee Systems
800 Aviation Parkway
Smyrna, TN 37167
(615) 462-4000

Change log

Date	Changes	Author	Change No.	ID
2012-01-18	New Manual Concept	MPH		

Publisher:

Franke Kaffeemaschinen AG
P.O. Box 235
CH-4663 Aarburg
Switzerland

www.franke-cs.com

Table of Contents

Change log	2
Table of Contents	3
Programming	4
Inserting the Chip Card	4
Programming Navigation	4
Entering the PIN Code	5
Install Menu 1 - 3	6
Install Menu 4 - 10	7
1. Set-up	8
Programming the Product Buttons.....	13
2. Product Definition	14
3. Adjust Card	20
4. Fluid System	21
5. View Counter	21
6. Clear Counter	22
7. Test Outputs	23
Milk Pump Chart Bit 1 and 2	24
8. Check Inputs.....	24
9. Card Service.....	24
Customer Menu 1 - 9	26
Settings with the Adjust Card.....	27
1. Product definition	27
2. Clock.....	27
3. Temperature	27
4. Accounting.....	28
5. Display	28
6. Error-Messages	28
7. Show Counter	28
8. Clear Counters.....	28
9. Card service.....	28
Settings with the Grinder Card.....	28
Grinder test.....	28
Show Counter.....	29
Data save with the Download Card	29
1. Download or Upload	29
Default Product Values	30

Programming

The Evolution features three Chip Cards with a specific function for each card.

- **Install Card** – used primarily by technicians to access all of the Evolution's programming parameters.
- **Adjust Card** – used primarily by managers to check the product counters and to make slight adjustments to the product button parameters.
- **Download Card** – used to save or backup and in some cases restore the the machine's programming.

Inserting the Chip Card

The Evolution's chip card reader is located below the product panel.

Insert the chip card with the gold chip facing upwards and towards the machine.

If the card is inserted incorrectly, the display will indicate this by displaying "Read chipcard"

Lift the product panel to access the "-", "+", and the EXIT button.

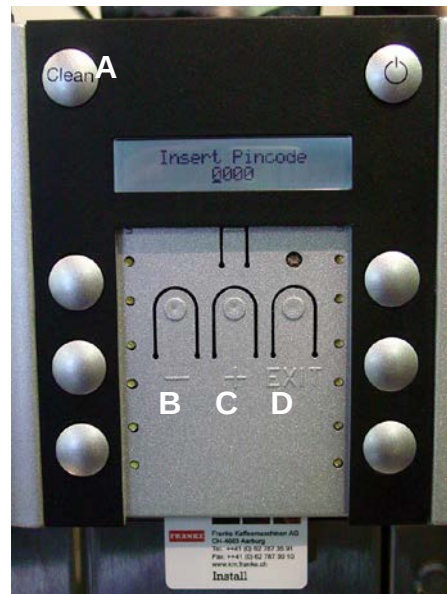
NOTE: Do not remove the panel. Simply lift it up enough to access the buttons.



Programming Navigation

When using the chip card, four buttons are used to navigate through the programming tree

- A. The "Clean" button:
 - Accesses a parameter
 - Confirms the value of a parameter
 - Enters the value and advances to the next digit when entering the PIN code.
 - B. The "-" button:
 - Decreases the value of a parameter.
 - C. The "+" button:
 - Increases the value of a parameter.
- Both B & C are used to activate and deactivate a function.
- D. The EXIT button:
 - Used to EXIT a parameter without confirming a change in the programming.
 - Move up one level of the programming hierarchy.

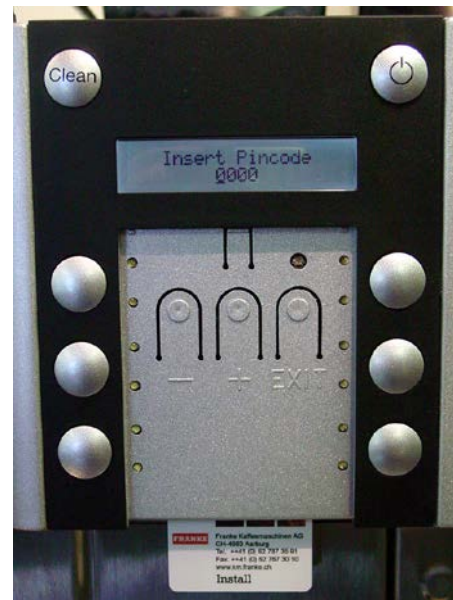


Entering the PIN Code

Once the Install card has been inserted into the card reader, the display will change and prompt you to insert the PIN code. The first time a new card is used, the PIN code has to be entered and confirmed and must be entered as 0001. All cards that come with the machine will already have 0001 as a default pin code. The PIN can be entered incorrectly a number of times without it being disabled. If, however, you forget the PIN code, the card is unusable and must be replaced. Once the entry has been entered, the card can be removed for 5 minutes without having to re-enter the code.

Use the programming buttons to enter the PIN code for the card inserted. To enter this number, do the following.

1. Press the clean button three times
2. Press the “+” button once to change the fourth 0 to a 1.
3. Press the Clean button to enter the PIN code.



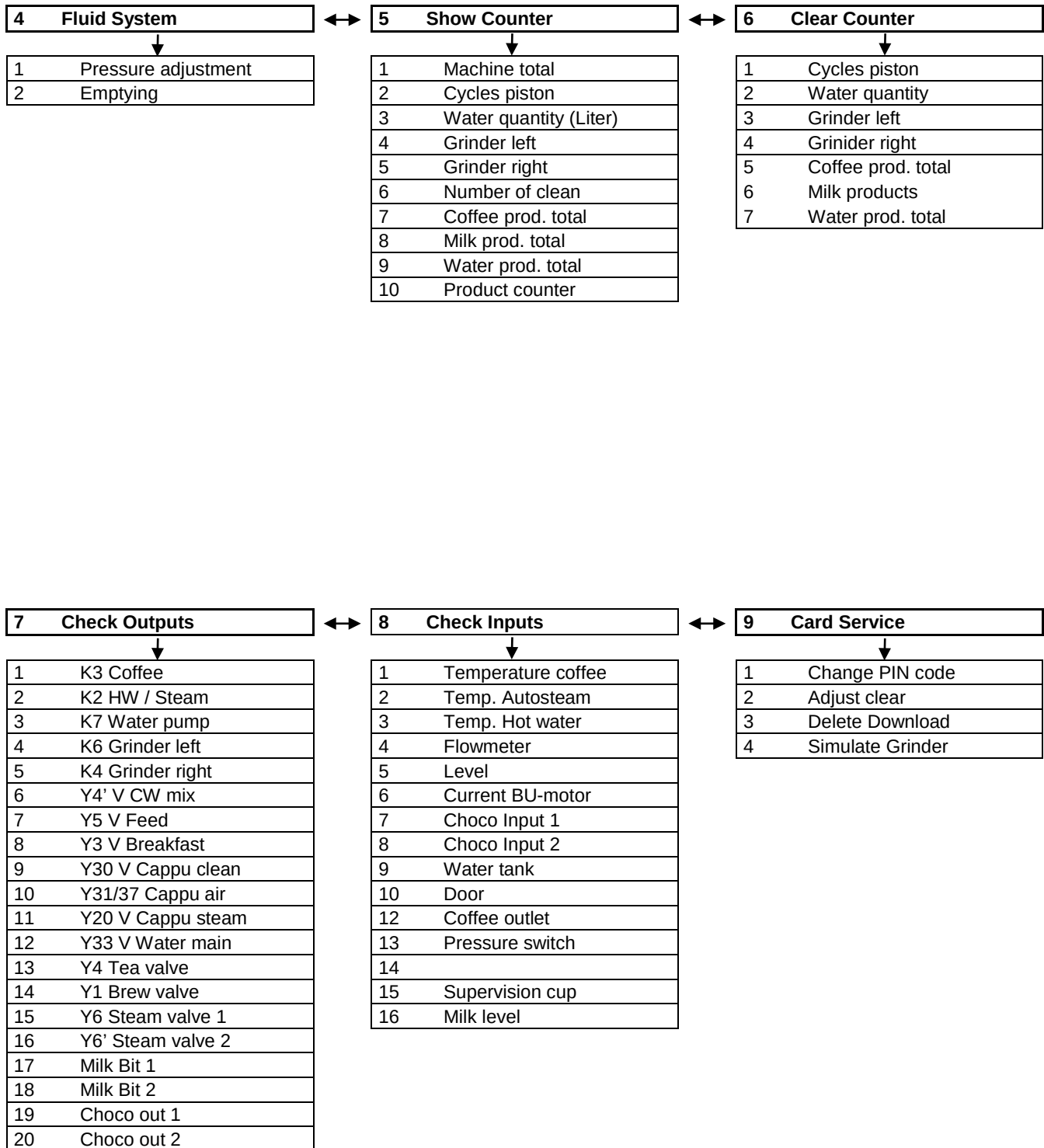
Once the correct PIN code has been entered, the display will change to display the parameters accessible with the Install card.

- | | |
|--------------------------|--|
| 1. Set-up | Configures the machine's basic operational settings. |
| 2. Prod. Def. | Programs the product buttons, i.e. Dbl Latte. |
| 3. Adjust Card | Allows access to the parameters available when the Adjust card is inserted into the card reader. |
| 4. Fluid-system | Access the “emptying” and “pressure adjustment” parameters. |
| 5. View Counters | Accesses the “history” of the machine, cycle counts, component operational times, etc. |
| 6. Clear Counters | Clears the values of certain values found in the view counter parameter. |
| 7. Check Outputs | Allows you to test the operation of the machine's components. |
| 8. Check Inputs | Allows you to test the input signals from the machine switches and readers. |
| 9. Card service | Allows you to change the PIN code on the Install card, clear an Adjust card, delete a download card, or simulate a grinder card. |

Install Menu 1 - 3

1	Set-up	↔	2	Product definition	↔	3	Adjust Card
	↓			↓			↓
1	Language		1	Selection		1	ON / OFF adjust
2	Serial number		2	Raw Product		2	Date
3	Install number		3	Text selection		3	Time
4	Boiler		4	Cycles / Button		4	Timer function ON
5	Steam / Cappu		5	Cups / Button		5	Timer function OFF
6	Locked		6	PLU		6	Day of week
7	Accounting		7	Fill level coffee		7	12h / 24h mode
8	Show credit		8	By-Pass		8	Simulation
9	Command		9	Mill quantity left			
10	Coin values		10	Mill quantity right			
11	Temp. coffee		11	Control			
12	Over temperature		12	Preinfusion			
13	Temp. Hot water		13	Time preinfusion			
14	Preselect		14				
15	Dry press time		15	Permanent			
16	Request cleaning		16	Fill level milk			
17	Cleaning obliged		17	Temperature milk			
18	Cleaning cycles		18	Fill level froth			
19	Drawer		19	Temperature froth			
20	Waterfilter		20	Fill level hot water			
21	Milksystem		21				
22	Milk corr. after		22	Steam quantity			
23	Milk corr. at		23	Steam strong			
24	Milk corr. limit		24	Autosteam			
25	Milk empty message		25	Common outlet			
26	Rinse coffee		26	Outlet switch			
27	Rinse milk		27	Pressure			
28	On / Off rinse		28	Pressure time			
29	Water tank		29	BU-open			
30	Autosteam		30	Dry press			
31	Input X2.1		31	Price			
32							
33	Set default data						
34	Machine >> Flash						
35	Buzzer						
36	Service						
37	Sanitizing						

Install Menu 4 - 10



1. Set-up

1 Language

English

[English]
[Francaise]
[Espanol]
[Nederlands]
[Japanese]
[Deutsch]

2 Serial No.

00000015

[1,2,3,4,5,6,7,8,9,0]

Indicates the serial number set by the factory.



3 Install No.

464009

[1,2,3,4,5,6,7,8,9,0]

Indicates the serial number set by the factory.
Identification for Adjust Card and Download Card.
Setting install number to 0 allows the use of
any available download card.

4 Boiler

1

only Evolution Top model – Not imported by FCSA

[1 / 2]

1 for Evolution Basic model
2 for Evolution Top model
2 for Office model (only coffee boiler)

5 Steam / Cappu

Y

only Evolution Top model – Not imported by FCSA

[no / yes]

No: HW/S boiler is filled completely
Yes: For steam / cappu system

6 Locked

No

only Evolution Top model – Not imported by FCSA

[no / yes]

No: For 400V 2P NE connection
Yes: For 208V 1P E UL connection
Yes: For 230V 1P NE connection

7 Accounting

without

Not used by FCSA

[Without]
[CCI / CSI]
[Coin stepper]



If CCI / CSI: follow setting 8
If coin checker: follow setting 8-10
and Adjust Card setting 4.1

8 Show credit

No

Not used by FCSA

[no / yes]

No: Display used in billing system
Yes: Also in the Evolution display

9 Command

2

Not used by FCSA

[0 – 3]

10	Coin values	Not used by FCSA	[C: 1 price: 00.00-99.99] [C: 2 price: 00.00-99.99] [C: 3 price: 00.00-99.99] [C: 4 price: 00.00-99.99] [C: 5 price: 00.00-99.99] [C: 6 price: 00.00-99.99] [lim price: 00.00-99.99]
11	Temp. coffee	only Evolution Top model – Not imported by FCSA	[10 – 100] Sets the brewing temperature on Evolution Top models  Evolution Basic model with cold water mixing valve Y32
12	Over temperature	only Evolution Top model – Not imported by FCSA	[0 – 3] 0 for OFF 1 for max. 4°C 2 for max. 8°C 3 for max. 12°C  Every 3 min. the temperature in the coffee boiler is increased by 1°C
13	Temp. hot water	only Evolution Top model – Not imported by FCSA	[10 – 100]  If setting 5 is configured "NO"
14	Preselect	[no / yes]	Up to 9 dispensings per products can be "preselected". Cancel with CLEAN.
15	Dry press time	[0.1 – 5.0]	 Dry pressing time of the coffee grounds cake after brewing

16	Request cleaning	400 (Strokes / Cycles)	[0 – 1000]	 Cleaning request by cycles 0 for request by time
		h:00 m:00 (Hours / Minutes)	[h:0-23 min:0-59]	Cleaning request by time
17	Cleaning obliged	0 Start: no	[0 – 1000 start:yes/no]	Additional number of cycles after request 0 for disabled Start Yes: For forced cleaning the next time the coffee machine is switched ON if, after the last cleaning, at least one coffee product has been dispensed and the coffee machine has been switched OFF for at least 1 hour.  Cancel cleaning: 1. Press and hold down EXIT button. 2. Switch off machine and release EXIT button. 3. Switch on machine.
18	Cycles	5 (Strokes)	[4 – 9]	 Cycles need to dissolve the cleaning tablet
19	Drawer	50 piece	[0 – 150]	 10 pcs. before the programmed number the message “Empty drawer” appears  When the number is reached, the message “Drawer full” is displayed and it is not possible to dispense coffee products An entry of less than 10 is not permitted
20	Water filter	0 [100 lit] (100 Liter)	[0 – 100]	0 for OFF  Direct count corresponding to the flow meter for consumption from coffee boiler No count for consumption from HW/S boiler

Divide the capacity of the softener by the incoming water hardness. This gives you the number of gallons the softener can handle. Multiply this number by 3.8 to get the amount of water in liters. Then divide that number by 100 to find the number which needs to be programmed.

21	Milksystem milk no	[milk no] [CF1/2 yes / Sens no] [CF1/2 yes / Sens yes] [CF yes /Sensor yes] [CF MUT]	no milk version is installed without milk level monitoring with milk level monitoring with milk level monitoring with milk under table system
			 If "NO": Follow setting 26
22	Milk corr. after 60s (Seconds in steps of 1s)	[0 – 120]	 The milk quantity correction begins after the programmed time
23	Milk corr. at 1.0s (Seconds in steps of 0.1s)	[0.0 – 3.0]	 The milk quantity is increased / corrected by the programmed time
24	Milk corr. limitation 1.0s (Seconds in steps of 0.1s)	[0.0 – 10.0]	 The max. milk quantity correction is limited to the programmed time
25	Milk Empty Message 3	[0 – 15]	 The number of milk/coffee products that can still be dispensed after the empty message from the level sensor appears
26	Rinse coffee 10min (Minutes)	[0 – 99]	 Rinsing after the last dispensed coffee product
27	Rinse milk 3min (Minutes)	[0 – 99]	 Rinsing after the last dispensed milk product
28	ON/OFF rinse NEVER	[NEVER] [at off] [at on] [off and on]	 No rinse cycle when switched ON or OFF At OFF: Rinsing when switched OFF At ON: Rinsing when switched ON OFF and ON: Rinsing when switched OFF and ON
29	Water tank No	[no / yes]	Yes: Water tank operation monitoring system
30	Autosteam No	[No] [Yes] [Pro]	 No steam wand or standard steam wand Autosteam version Autosteam PRO version

31	Input X2.1	Accounting	[Accounting] [Supervision]	Optional Key switch for accounting system Optional Cup supervisor
				 Both options together is not possible
33	Set default data	Save done?		
		Save done?		
		Done		
				 Load current data to the Download Card!  RAM is cleared (without the counters) All settings are reset  Factory values are loaded Serial and Install numbers are set to 00000000
34	Machine >> Flash	Insert Module		
		Press CLEAN		
		Done		
				 Load current machine software to the Flash module
35	Buzzer	No	[no / yes]	Yes: the Buzzer is active  Single Beep active for 0.1 seconds - Press product button for possible selection - Every time a button is pressed in the menu Alternating Beep for 0.2 sec ON / 1 sec. OFF - Grounds door is open - Coffee outlet is missing Alternating Beep for 0.2 sec. ON / 5 sec. OFF - Other ERRORS
36	Service	Dispe.: 0000 M:0	[0000 - 200000] [0-24]	 Cycle count until Service Message appears Number of Month until Service Message appears
37	Sanitizing	0s	[0-120]	 Length of time for the Sanitizing process (Seconds in steps of 1.0s)

Programming the Product Buttons

The Evolution can be programmed up to 24 different products.



Accessing the Alternate, Shift and Alt-Shift functions of the Product Buttons

- Normal level is a single press of product buttons P1-P8 which give you a total of 8 products.
- Alt level is a double tap of product buttons P1-P8 which gives you a total of 16 products.
- Shift level is assigned to any of the buttons P1-P6 which gives you a total of 14 products. When pressing the assigned shift button the lights on the display will move towards the top of the display button. FCSNA typical assigns P6 as a shift button.
- Shift-Alt is pressing the assigned shift button then a double tap of a product button P1-P6 which gives you a total of 24 products.

2. Product Definition

1 Selection

 P1 normal 

[see chart below]

 for programmed button

S for programmed shift button



Double-tap for Alt level

Select the product button you want to program by entering the number assigned to that product button.

Product buttons for the Standard Software Version

Button	Normal level	Alt level	Shift level	Shift-Alt level
P1	1	1	1	1
P2	2	2	2	2
P3	3	3	3	3
P4	4	4	4	4
P5	5	5	5	5
P6	6	6	6	6
P7	7	7		
P8	8	8		
Choco 1				
Choco 2				

Accessing the Alternate, Shift, and Alt-Shift functions of the Product Buttons

- In the normal mode, each product has one button associated with it for a total of 8 products.
- By double-tapping a product button, you can then access the Alt function, which is a second product associated with that button (the alt level).
- If product button P6 is programmed as a “Shift” button, you then have access to an additional, third product for buttons P1-P5 (the shift level). Product buttons P7-P8 do not have a shift level.
- By pressing the “Shift” button and then double-tapping the product buttons A-E, you can then access a fourth product associated with that button (the shift-alt level).

2

Raw Product

[no Product]

[Ristretto]

[Espresso]

[Coffee]

[Milkcoffee]

[Cappuccino]

[Macchiato]

[Cold milk]

[Hot milk]

[Frothed milk]

[Hot water]

[Steam]

[Autosteam]

[Autosteam Pro]

[Coffee part only]

[Choco]

[Shift]

[2Ristretto]

[2Espresso]

[2Coffee]

[2Milkcoffee]

[2Cappuccino]

[2Macchiato]

[Decaf]

[Jug]

Selecting a new "raw product" will change the drink values to the default values found on page 30



For double products (brewed with 1 cycle) increase by 30%-50% on the fill level coffee on settings 7 and mill quantity on step 9 and 10



Shift can be programmed only on one button on the normal level

3

Text Selection

[no Product]

[Ristretto]

[Espresso]

[Coffee]

[Milkcoffee]

[Cappuccino]

[Macchiato]

[Cold milk]

[Warm milk]

[Frothed milk]

[Hot water]

[Steam]

[Autosteam]

[Autosteam Pro]

[Choco]

[Latte]

[Jug]

[Decaf]

[2Ristretto]

[2Espresso]

[2Coffee]

[2Milkcoffee]

[2Cappuccino]

[2Macchiato]

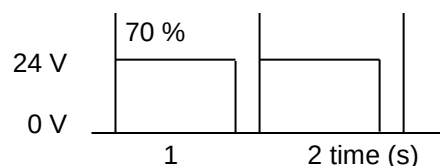
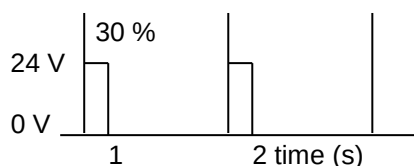
[2Latte]

[Coffee part only]

4	Cycles / Button 1 (Cycles/Strokes)	[1 – 6]	 Number of cycles/strokes per product
5	Cups / Button 1 (Cups)	[1 – 6]	 Cup counters per product
6	PLU 000 (Product look-up)	[0 – 999]	 Product number for accounting system (The basic setting is consecutive button numbering)
7	Fill Level Coffee 70ml (Milliliter)	[1 – 800]	 Sets the water volume for the coffee in the selected product
8	By-Pass only Evolution Top model – Not imported by FCSA 00 % (Percent)	[0 – 80]	 Amount of water that will by-pass the coffee in the brew chamber <i>Breakfast valve Y3 – is not installed on Evolution Basic models)</i>
9	Mill quantity left 2.8s (Seconds in steps of 0.1s)	[0.1 – 15.0]	2.8 seconds for about 8 grams  Brewing chamber capacity max. 15 grams  If multiple grinders are programmed, the control system actuates the right grinder, then the left grinder. (No time reduction!)
10	Mill quantity right 2.8s (Seconds in steps of 0.1s)	[0.1 – 15.0]	 When both left and right grinders are set to “0”, the selections fall to the “pre-ground” coffee chute in the center.
11	Control yes [no / yes]		Yes: For monitoring bean quantity level No: Less than 6 grams of mill quantity  Check done with the micro-switch of the brewing unit motor

12	Preinfusion 0ml (Milliliter)	[0 - 99]	 Water amount of the preinfusion is in addition to the fill level coffee
13	Time Preinfusion 0.0s (Seconds in steps of 0.1s)	[0.0 – 25.5]	 Time used for the preinfusion Caution with long preinfusion times in Self-Service
15	Permanent no	[no / yes]	Yes: Output as long as button is pressed or programmed fill quantity reached No: Press button once for prog. quantity  Only for milk, steam, and water products on normal level
16	Fill Level Milk 20.0s (Seconds in steps of 0.5s)	[0 – 127.5]	Sets the amount of foamed milk that will dispense for the product Used only on One-Step (CF) machines
17	Temperatures Milk milk level 1	ONLY CF / CF MUT with milk pump [1 – 4]	1 for cold, without steam 2 for lukewarm 1 (40 – 45°C for milk) 3 for lukewarm 2 (63 – 65°C for milk) 4 for warm (68 – 70°C for milk)  Temperatures can be set on the CF control print in the refrigerator with the potentiometers 1-3
18	Fill Level Froth 20.0s (Seconds in steps of 0.5s)	[0 – 127.5]	Sets the amount of frothed milk that will dispense for the product Used only on One-Step (CF) machines
19	Temperatures Froth milk level 1	ONLY CF / CF MUT with milk pump [2 – 4]	2 for lukewarm 3 for warm 4 for hot  Warning: Milk froth can burn if too hot

20	Fill Level Hot Water 15.0s [0.1 – 50.0]	Sets the time that the hot water valve (Y4) and cold water valve (Y4') will be activated to dispense hot water from the tea wand
22	Steam Quantity 100.0s [0.0 – 250.0] (Seconds in steps of 0.1s)	Sets the time that the steam valve (Y6) will be activated to dispense steam from the steam wand
23	Steam Strong No [no / yes]	Sets the steam strong valve (Y6') to be activate in addition to the steam valve (Y6) to dispense steam from the steam wand
24	Temp. Autosteam <i>Option – when Install Menu 1.30 Autosteam selection „yes“</i> M: 60 [0 – 99]	Sets the milk temperature steam cut-off
24	Temp. AutosteamPro <i>Option – when Install Menu 1.30 Autosteam selection „Pro“</i> M: 60 [0 – 99] F: 45 [0 – 99] C: 3 [0 – 6]	Sets the milk temperature steam cut-off Sets the milk foam temperature steam cut-off Sets the amount of steam compression
25	Common Outlet 00s [00 – 50] (Seconds in steps of 1s)	Delay time for milk to coffee 0 for milk with coffee Minus time for milkf before coffee Plus time for milk after coffee
26	Outlet switch <i>Option – not available with ASP</i> N ☒ Y [no / yes]	Yes: e.g. pot outlet placed on “steam pipe”  Only for coffee products
27	Pressure 70 [PWM %] [25 – 90]	Sets the pressure that the upper piston tamps in the brew chamber.  With too little PWM the BU motor lacks the required force to overcome the resistance of the piston gasket (Not enough voltage)



28	Press time	1.0s [0.0 – 5.0] (Seconds in steps of 0.1s)	Sets the time that the upper piston tamps the ground coffee in the brew chamber
29	BU-open	0.00s [0.0 – 0.25] (Seconds in steps of 0.01s)	Sets the time the upper piston will lift off the coffee after tamping it in the brew chamber.
 Warning: Pay attention to the piston position!			
30	Dry Press	1 [1 / 2]	Set to 1, the piston will continue to press the spent grounds for 2 seconds Set to 2, the piston will lift up and press the spent grounds one additional time
31	Price	price: 00.00 Not used by FCSA [00.00 – 99.99]	Product price for Franke chip card system

3. Adjust Card

1 ON/OFF

[no / yes]

Switches the machine ON / OFF only with Adjust Card (Self Service)

2 Date

[date]

3 Time

[time]

4 Timer Function ON

[time]

Only one switching per day / week possible

5 Timer Function OFF

[time]

Switching overnight not possible

6 Day of Week

[*]

Activate the day of the week by adding the * next to the day of the week

7 12h / 24h Mode

[12 / 24]

Determines whether the clock reads 12 hour time, (AM/PM) or 24 hour time (military)

8 Simulation

1 Product definition

2 Clock

3 Temperature

4 Accounting

5 Display

6 Error Messages

7 Show Counters

8 Clear Counters

9 Card Service

See customer menu settings



The Adjust Card simulated only with Access A



To access the Install menu again, the Install Card must be taken out of the card reader and then reinserted

4. Fluid System

1 Pressure Adjustment

Set pump pressure to 8 bar

 to terminate
adjustment


Special Tool

 Piston pressure tester
Art. no.: BK 310 428

 Main water valve and pump become active
Brewing valve Y1 opens every 5 sec. for
0.1 sec. to release pressure

2 Emptying

[Press CLEAN]


 Note: Make sure to turn off water supply to the unit
Process takes about 2.5 min. and
cannot be interrupted

 All valves are active and the pump runs after
30 sec. for 2 sec.

5. View Counter

1 Machine total

[0 – ~]

 Shows total number of piston cycles the machine
has performed

2 Cycles Piston

[0 – ~]


 Shows total number of piston cycles the machine
has performed since the counter was reset
Don't forget to reset after brew unit replacement.

3 Water quantity

(Liter)

[0 – ~]

 Show the number of liters that have flowed
through the flowmeter

4 Grinder left

[time]

(Hours / Minutes / Seconds)


 Total grinder left run time.
Don't forget to reset after burr replacement.

5 Grinder right

[time]

(Hours / Minutes / Seconds)


 Total grinder right run time.
Don't forget to reset after burr replacement.

6	Number of Clean 0	[0 – ~]	Show the number of cleaning cycles that have been run on the machine
7	Coffee prod. total 0	[0 – ~] been produced	Show the number of coffee products that have
8	Milk prod. total 0	[0 – ~]	Show the number of milk products that have been produced
9	Water prod. total 0	[0 – ~]	Show the number of water products that have been produced
10	Product Counter 0	[0 – ~]	Show the number of products that have been produced for each individual product button
11	Service 0	[0 – ~]	Show the number of service that have been conducted on this coffee machine
6.	Clear Counter		
1	Cycles Piston 0	[0 – ~]	Clears the piston cycle count
2	Water quantity 0 [lit] (Liter)	[0 – ~]	Clears the water quantity count
3	Grinder left 0 h 0 min 0 s (Hours / Minutes / Seconds)	[time]	Clears the grinder left count
4	Grinder right 0 h 0 min 0 s (Hours / Minutes / Seconds)	[time]	Clears the grinder left count
5	Coffee prod. total 0	[0 – ~]	Clears the coffee product count

6	Milk prod. total	0	[0 – ~]	Clears the milk product count
7	Water prod. total	0	[0 – ~]	Clears the water product count
8	Service	0	[0 – ~]	Clears the service count

7. Test Outputs

Note: Leaving components in the activated position may result in failure.

Test Output is OFF
Activate output with the '+' button

Test Output is ON
Deactivate the output with the '-' button

1	K3 Coffee	Activates heater relay 1
2	K2 HW/steam	Activates heater relay 2
3	K7 Water pump	Activates water pump
4	K6 Grinder left	Activate the grinder left
5	K4 Grinder right	Warning: Don't overfill the brewing unit! Activate the grinder left
6	Y4' V CW mix	Warning: Don't overfill the brewing unit! Activates the cold water mix valve
7	Y5 V feed	Activates the auto fill valve
8	Y3 V breakfast	Activates the breakfast valve
9	Y30 Cappu clean.	Activates the cappu clean valve
10	Y31/37 Cappu Air	Activates the cappu pinch valve / ASP air valve
11	Y20 Cappu steam	Activates the cappu steam valve
12	Y33 V Water main	Activates the water mains valve
13	Y4 Tea valve	Activates the hot water / tea valve
14	Y1 Brew valve	Activates the coffee brew valve
15	Y6 Steam valve 1	Activates the steam valve1
16	Y6' Steam valve 2	Activates the steam valve2
17	Milk Bit 1	Activates milk pump Bit 1 = fast pump
18	Milk Bit 2	Activates milk pump Bit 2 = medium fast pump
19	Choco out 1	Not used by FCSNA
20	Choco out 2	Not used by FCSNA

Milk Pump Chart Bit 1 and 2

Bit 1	Bit 2	Function on milk print	Evolution temperture level
0	0	Pump does not run	-
1	0	Fast pump (P1)	Level 1 (no steam) / 2 (with steam)
0	1	Medimum fast pump (P2)	Level 3 (with steam)
1	1	Slow pump (P3)	Level 4 (with steam)

0 = Off / 1 = On

8. Check Inputs

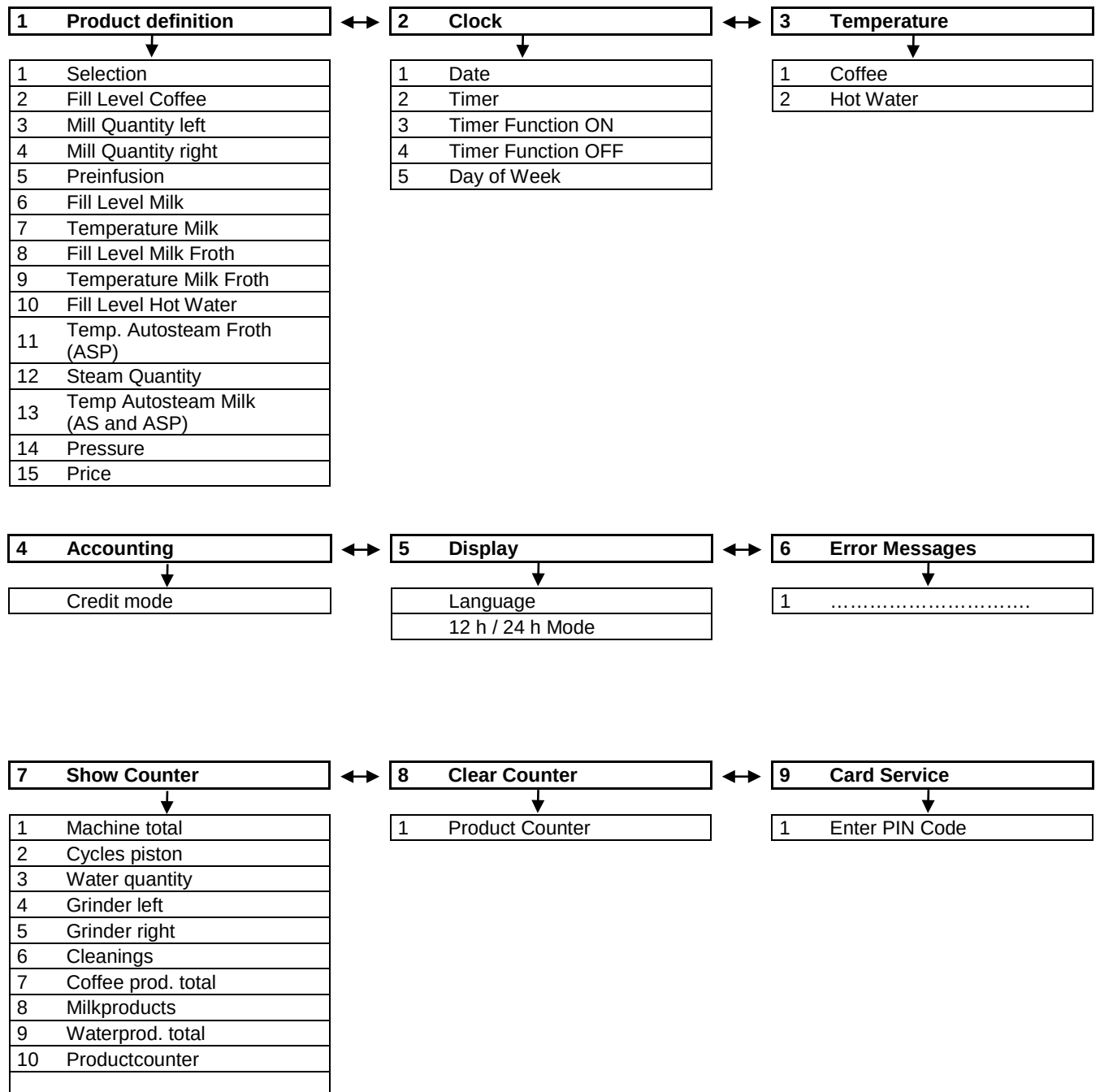
- | | | | |
|----|-------------------------|--------------------------|--|
| 1 | Temp. coffee | <i>only Top model</i> | Temperature sensor B4 in coffee boiler |
| 2 | Temp. auto-steam | <i>option</i> | Temperature sensor, end of steam pipe |
| 3 | Temp. hot water | <i>not used by FCSNA</i> | |
| 4 | Flowmeter | | Test the signal from the flowmeter |
| 5 | Level | |  Test the level probe B3 in HW/S boiler
780 = empty / 400-600 = full |
| 6 | Current BU-motor | | Test the Brewing unit motor – 0138 = 1 Amp.
move up with (+) / down with (-) |
| 7 | Choco Input 1 | <i>not used by FCSNA</i> | |
| 8 | Choco Input 2 | <i>not used by FCSNA</i> | |
| 9 | Water tank | <i>not used by FCSNA</i> | |
| 10 | Door | | Test the signal from grounds drawer microswitch |
| 11 | Coffee outlet | | Test the signal from coffee outlet microswitch |
| 12 | Pressure switch | | Test the signal from the pressure switch |
| 13 | Piston position | | Test the signal from brewing unit microswitch |
| 14 | | | |
| 15 | Supervision cup | <i>not used by FCSNA</i> | |
| 16 | Milk level | | Test the signal from milk level sensor |

9. Card Service

- | | | |
|---|---|--|
| 1 | Change PIN Code | Used to enter new PIN code on Install Card |
| | <input style="width: 100px;" type="text" value="0000"/> | [1,2,3,4,5,6,7,8,9,0] Old PIN Code |
| | <input style="width: 100px;" type="text" value="0000"/> | [1,2,3,4,5,6,7,8,9,0] New PIN Code |

2	Adjust Clear	Used to enter clear an Adjust Card Press CLEAN
	Adjust clear	
	Remove card	
	Insert target card	
	Remove card	
	Insert target card	
3	Delete Download	Used to enter clear a Download Card Press CLEAN
	Delete downloadd	
	Remove card	
	Insert target card	
	Remove card	
	Insert target card	
4	Simulate Grinder	Used to simulate a Grinder Card
	Grinder test	
	Show counter	

Customer Menu 1 - 9



Settings with the Adjust Card

Reduce the value of the setting with the - button



Increase the value of the setting with the + button



Navigation and programming are equal to the Install Card

- | | | | |
|-------|-------------------------------|-----------------------|--|
| 1. | Product definition | | |
| 1 | Selection | | Press product button |
| 2 | Fill level coffee | | +/- 40ml in 16 steps each à 5ml |
| 3 | Mill quant. left | | +/- 800ms in 16 steps each 100ms |
| 4 | Mill quant. right | | +/- 800ms in 16 steps each 100ms |
| 5 | Preinfusion | | +/- 16ml in 16 steps each 2ml |
| 6 | Fill level milk | | +/- 1600ms in 16 steps each 200ms |
| 7 | Temperature milk (CF) | | 4 temperature levels are showed as bars |
| 8 | Fill level froth | | +/- 1600ms in 16 steps each 200ms |
| 9 | Temperature froth (CF) | | 4 temperature levels are showed as bars |
| 10 | Fill level hot water | | +/- 3200ms in 16 steps each 400ms |
| 11 | Temperature ASP Froth | | +/- 8°C in 16 steps each 2°C |
| 12 | Steam quantity | | +/- 3200ms in 16 steps each 400ms |
| 13 | Temp. Autosteam Milk | | +/- 8°C in 16 steps each 2°C |
| or | | | |
| 13 | Temp. ASP Milk | | +/- 8°C in 16 steps each 2°C |
| 14 | Pressure | | +/- 8 PWM % in 16 steps each 2 PWM % |
| 15 | Price | | See Install Card 2.31 Prod. definition |
| <hr/> | | | |
| 2. | Clock | | See Install Card setting 3 – Adjust card |
| <hr/> | | | |
| 3. | Temperature | | |
| 1 | Coffee | <i>only Top model</i> | +/- 8°C in 16 steps each 1°C |
| 2 | Hot water | <i>only Top model</i> | +/- 8°C in 16 steps each 1°C |

4. Accounting

1 **Credit-mode** Display On / Off

5. Display

1 **Language**  See Install Card setting 1.1 – Set-up

2 **12h / 24h Mode**  See Install Card setting 3.7 – Adjust Card

6. Error-Messages

See error list

7. Show Counter



See Install Card setting 5 – Show Counter

8. Clear Counters

1 **Productcounter**

[Enter / Exit]

Enter: Delete all counters with Clean

Exit: Return to the menu without deletion

9. Card service



See Install Card setting 9.1 – Card service

Settings with the Grinder Card

Grinder test

Press product button

+/- 1600 ms in 8 steps each 200 ms

[Enter / Exit]

Clear for grind test

Exit to return to the menu without deletion

Enter = save
Exit = test

Clear to save
Exit to repeat grind test

Show Counter

- 1 Coffeeprod. total**  Display 1 - 4 same for Install and Adjust Card
- 2 Milkproducts**
- 3 Waterprod. total**
- 4 Productcounter**
-

Data save with the Download Card

The data save of the set-up and product definitions is made by the Download Card or Service Tool

1. Download or Upload
 - 1 **Upload**

1 unit >> card

 Press CLEAN 1x to confirm
 - 2 **Download**

2 card >> unit

 Press CLEAN 1x to write data
Wait for 'done' message

Default Product Values

1	Product selection	choice of button										
2	Raw product	Ristretto	Espresso	Coffee	Café latte	Cappuccino	Macchiato	Cold milk	Warm milk	Frothed milk	Hot water	Autosteam
3	Text selection	Ristretto	Espresso	Coffee	Café latte	Cappuccino	Macchiato	Cold milk	Warm milk	Frothed milk	Hot water	Autosteam
4	Cycles / button	1	1	1	1	1	1	1	1	1	1	1
5	Cups / button	1	1	1	1	1	1	1	1	1	1	1
6	PLU	n°										
7	Fill level coffee	35	70	120	100	70	50					
8	By-Pass	0	0	0	0	0	0					
9	Mill quantity left	0	0	0	0	0	0					
10	Mill quantity right	2.8	2.8	2.8	2.8	2.8	2.8					
11	Control	yes / no	yes	yes	yes	Yes	Yes					
12	Preinfusion	10	10	0	0	0	5					
13	Time preinfusion	1.0	1.0	0.0	0.0	0.0	10.0					
14	Preinf. with pump	yes / no	yes	yes	yes	yes	yes					
15	Permanent	yes / no						no	no	no	no	no
16	Fill level milk	1.0s			20	0	10	20	20	0		
17	Temp. Milk	level			4	1	1	1	4	1		
18	Fill level froth	1.0s			0	10.	9.0	0.0	0.0	10.0		
19	Temp. Froth	level				3	3	1	1	2	60	
20	Fill level hot water	1.0s										
21	(empty)											
22	Steam quantity	1.0s										
23	Steam strong	yes / no										100.0
24	Temp. auto-steam	M°C										Yes
		F°C										70
		C										45
25	Common outlet	sec			- 10	+ 6	- 14					3
26	Outlet switch	yes / no	no	no	no	no	no	no	no	no	no	no
27	Pressure	PWM %	70	70	60	70	70					
28	Pressure time	1.0s	5	5	5	5	5					
29	BU-open	10ms	0	0	0	0	0					
30	Dry-press	1 / 2	2	2	2	2	2					
31	Preis		0	0	0	0	0	0	0	0	0	0

Franke Evolution

Technical Training Manual

Components / Hydraulic System – Chapter 7



Franke Coffee Systems
800 Aviation Parkway
Smyrna, TN 37167
(615) 462-4000

Change log

Date	Changes	Author	Change No.	ID
2012-01-18		MPH/SPG		

Publisher:

Franke Kaffeemaschinen AG
P.O. Box 235
CH-4663 Aarburg
Switzerland

www.franke-cs.com

Table of Contents

Change log	2
Table of Contents	3
Safety Notes	4
Safety.....	5
Machine Overview	6
Internal Components - Right Side.....	7
Internal Components - Left Side	8
Internal Components - Rear	9
Hydraulic System.....	10
Mains Valve Y33	10
Pump/Motor Assembly	10
Check Valve	10
Cold Water Valve Block.....	11
Brewing circuit	11
Flowmeter.....	11
Coffee Valve and Over Pressure Relief Valve	12
Brew Unit.....	12
Boiler Components	13
Steam Block Outlets.....	15
Hydraulic Schematics	16

Safety Notes

The installation, setting, repair and maintenance work described in these instructions must be performed only by service technicians trained by Franke Coffee Systems North America Inc. and when using original Franke parts!

Observe the following dangers and warnings when servicing coffee machines with live voltage.

DANGER

DANGER!
Mortal Danger!
Electrocution caused by coming in contact with live voltage.
Safeguard parts with live voltage against contact.

WARNING

WARNING!
Indicates risk of injury!
You may suffer injuries due to moving parts crushing fingers and hands.
Secure moving parts against unintentional movement.

CAUTION

CAUTION!
Indicates risk of minor injury!
Avoid burns caused by hot water, steam, hot milk, or milk foam

NOTE

NOTE!
Indicates possibility of damage to the machine.

Safety

GEFAHR

Steam System

Before performing maintenance on any steam related component, ensure the following:

- Disconnect the machine from the water supply.
- Always disconnect the machine from its power source.
- Empty the machine before performing any work on the boiler system.

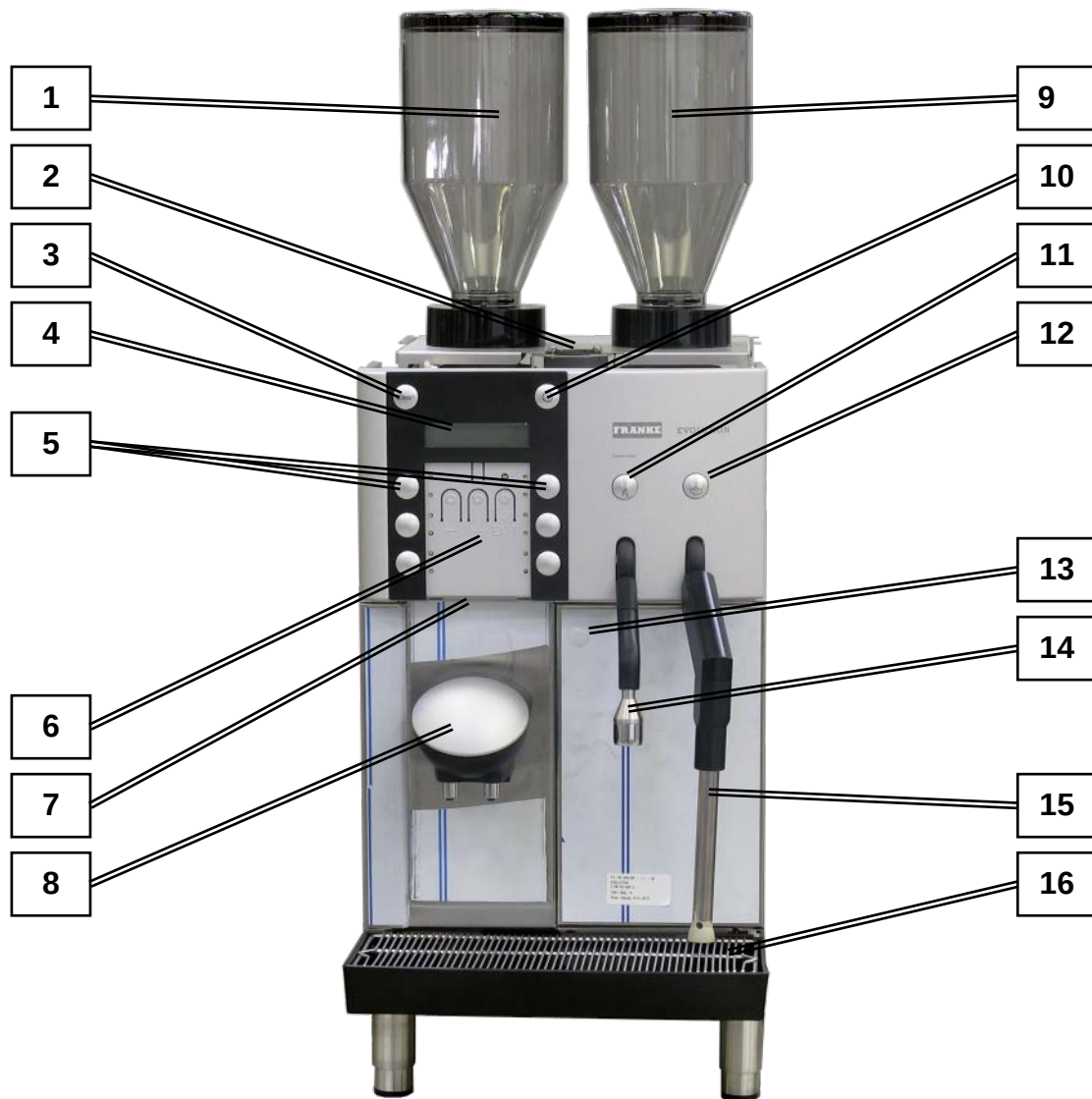
GEFAHR

Hydraulic System

Before performing maintenance on any hydraulic related component, ensure the following:

- Disconnect the machine from the water supply.
- Always disconnect the machine from its power source.
- Empty the machine before performing any work on the boiler system

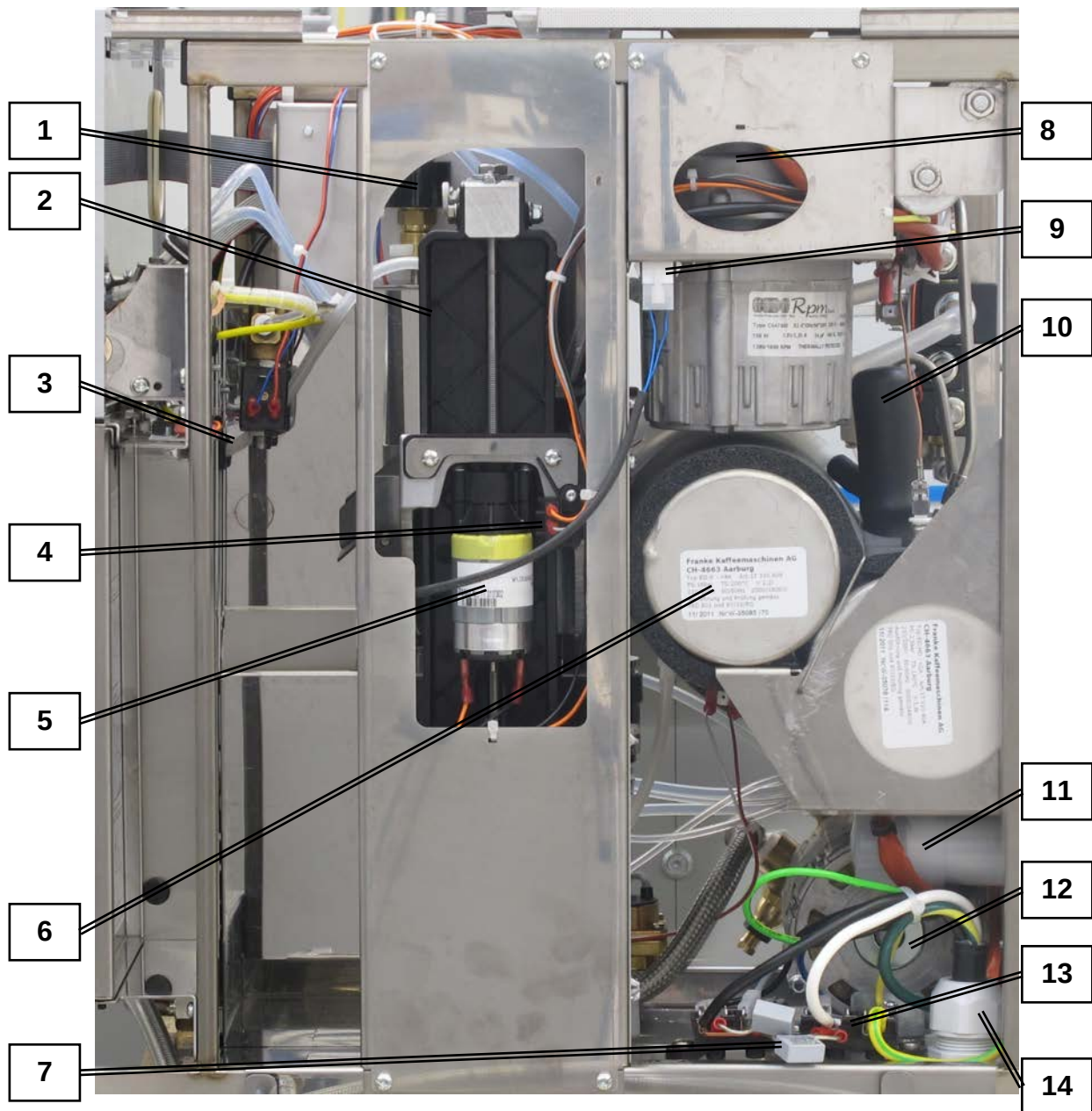
Machine Overview



1. Left Hopper
2. Cleaning Tablet Chute *
3. Clean Button
4. Display
5. Product Buttons
6. Programming Buttons
(under product panel)
7. Chip Card Reader
8. Coffee Outlet

9. Right Hopper
10. Power Button
11. Hot Water Product Button
12. Steam Product Button
13. Grounds Container Door
14. Hot Water Wand
15. Steam Wand
16. Drain Tray

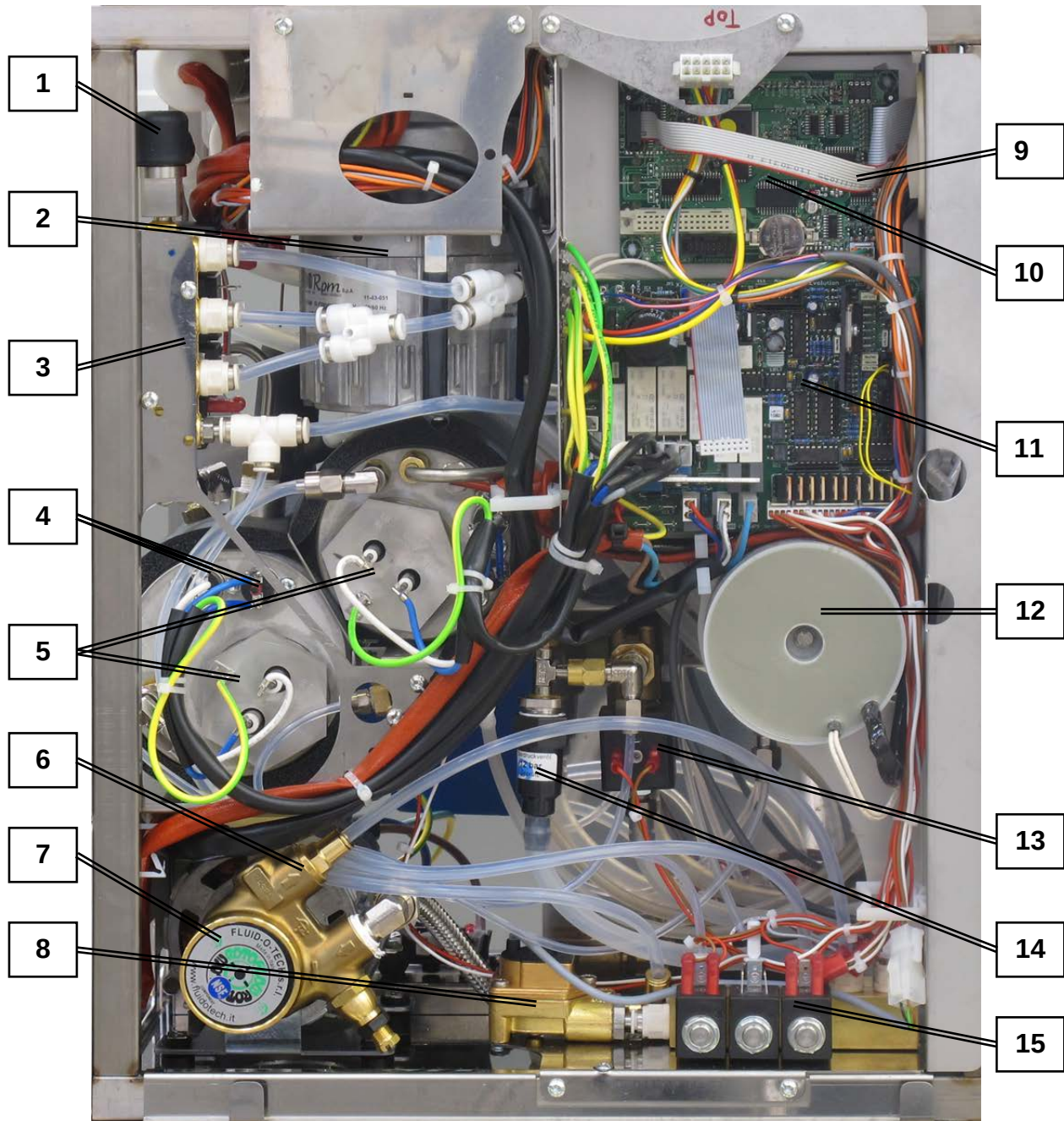
Internal Components - Right Side



1. Pressure Switch
2. Threaded Spindle
3. Product Tube
4. Piston Position Microswitch
5. Piston Motor
6. Boiler (Coffee)
7. RF Interference Filters

8. Right Grinder Motor
9. Block Heater Connector
10. Pressure Relief Valve
11. Pump Motor Capacitor
12. Pump Motor
13. Terminal Block
14. Incoming Power Cord

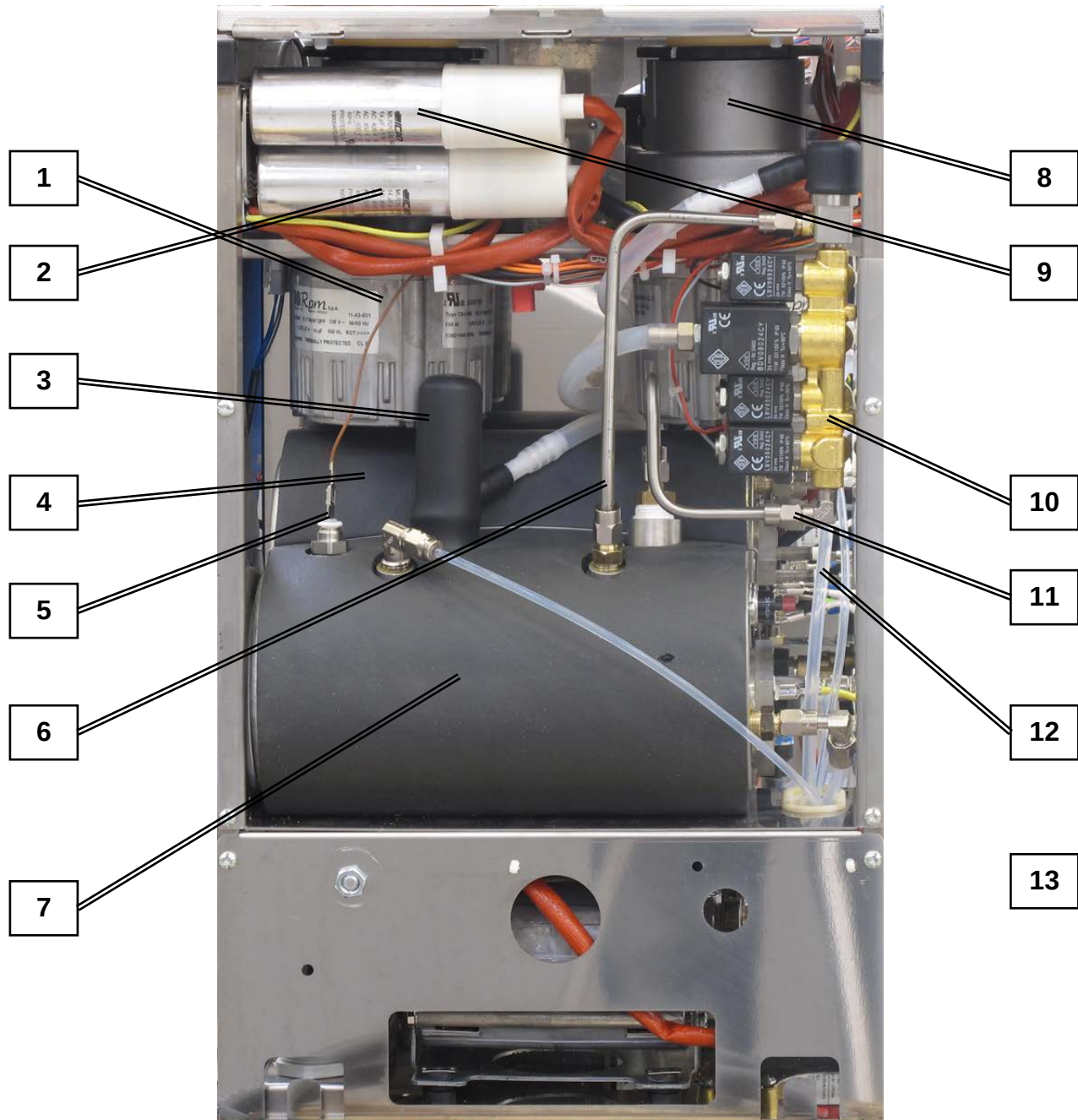
Internal Components - Left Side



1. Vacuum Breaker
2. Grinder Motor
3. Hot Valve Block
4. Thermal Limiters (Klixons)
5. Heating Element
6. Check Valve
7. Pump
8. Flowmeter

9. Service Tool Connector
10. Logic Print Board
11. Power Print Board
12. Step-down Transformer
13. Coffee Valve
14. Over-Pressure Relief Valve
15. Cold Valve Block

Internal Components - Rear



1. Right Grinder Motor
2. Right Grinder Capacitor
3. Pressure Relief Valve (2,5 bar)
4. Boiler (coffee)
5. Autofill Probe
6. Steam Feed to Hot Valve Block
7. Boiler (hot water)

8. Left Grinder Motor
9. Left Grinder Capacitor
10. Hot Valve Block
11. Hot Water Feed to Hot Valve Block
12. Steam Feed to Pressure Switch and Gauge
13. Steam pressure to press switch

Hydraulic System

One of the items that have “evolved” from the Ecolino into the Evolution is the use of valve blocks equipped with several valves instead of each valve being equipped with its own body, installed throughout the machine.

The following section follows the order of flow of through the Evolution’s hydraulic circuit starting with the brewing circuit, followed by the autofill circuit, and finally the steam circuit.

Mains Valve Y33

The mains valve is where incoming water enters the Evolution.

- The mains valve acts as a back flow preventer by staying closed. The mains valve is only activated to feed the brewing circuit or fill the steam boiler.
- It is located behind the door directly behind the coffee outlet door.
- It has a yellow 24vdc coil installed on a plastic body. Use caution when installing the water inlet hose so as not to cross-thread the fitting, damaging the mains valve.

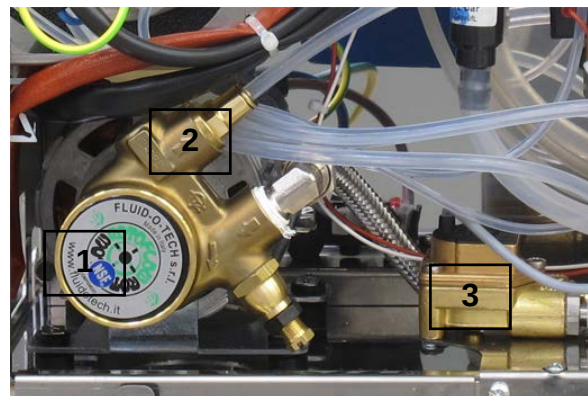


From the outlet of the mains valve, a braided stainless steel water line feeds the incoming water to the inlet of the boost pump.

Pump/Motor Assembly

The pump and motor assembly boosts existing water pressure to the required 8 bar (116 psi) to properly brew espresso.

- The pump is a carbon-vaned rotary pump, as used on virtually all espresso machines.
- The pump is factory set and should rarely require adjustment.
- The pump pressure can be adjusted by rotating the adjustment screw clockwise to increase the pressure and counter-clockwise to decrease the pressure.



Check Valve

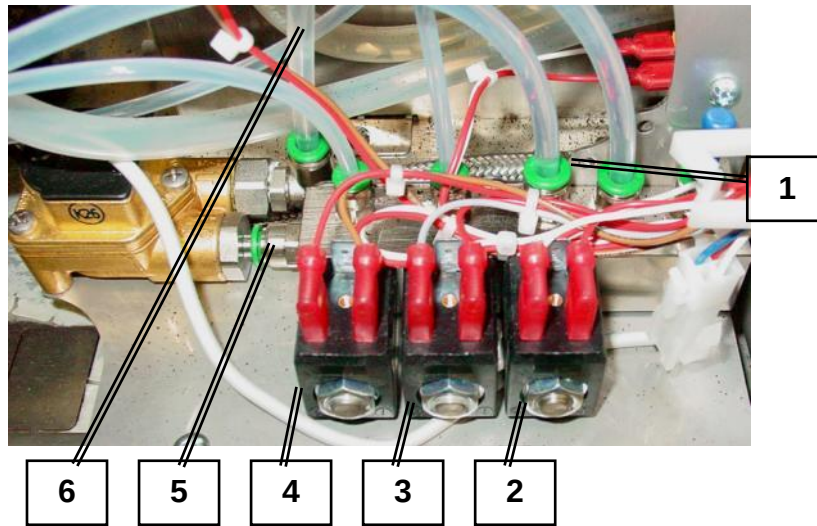
Installed on the outlet fitting of the pump is a check valve, preventing any pressurized water in the Sinfonia from feeding back into the pump and mains valve.

The outlet of the check valve is equipped with a tube that feeds the incoming water to the cold water block.

1. Pump and Motor Assembly
2. Check Valve
3. Flowmeter

Cold Water Valve Block

The cold water block contains three 24VDC valves.



- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Water into the block from the pump. 2. Water Feed Valve to the boiler. 3. Cappu Clean Valve (Y30) - supplies water to rinse/clean the CF foaming unit. 4. Cold Water Tea Valve (Y4) - Supplies cold water to mix with the hot water tea valve. | <ol style="list-style-type: none"> 5. Water from the block to the flowmeter. 6. Water from the flowmeter to the coffee boiler |
|--|---|

Brewing circuit

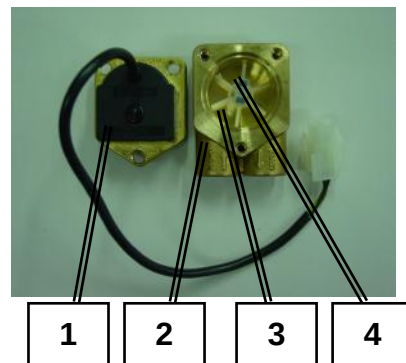
The brewing circuit consists of the:

- Flowmeter – measures the volume of water for brewing coffee / espresso
- Heat exchanger – heats the water for brewing coffee / espresso.
- Mix valve – tempers the water from the heat exchanger to the appropriate temperature for brewing coffee / espresso.
- Coffee valve – 24VDC valve that opens to allow water to flow into the brew unit.
- Brew unit – where the water from the coffee valve meets with the ground coffee to brew coffee / espresso.

Flowmeter

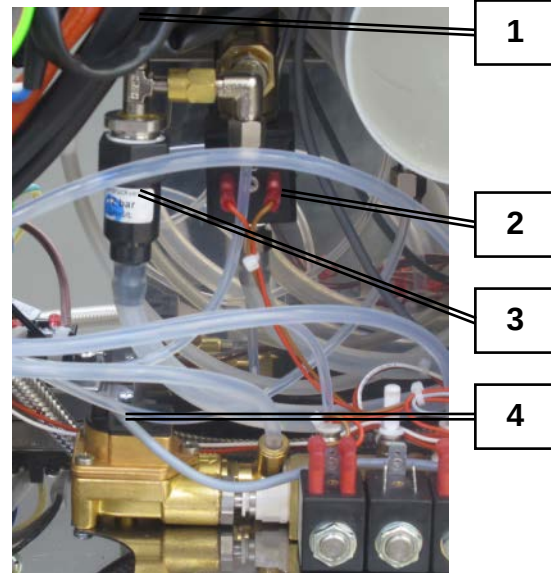
The flowmeter consists of:

- Flowmeter body (2) – which houses the impellor.
- Impellor (3) – a plastic impellor imbedded with two small magnets (4). As water travels through the flowmeter body, it causes the impellor to spin. As it spins, the embedded magnets rotate under the flowmeter field.
- Field (1) – As the magnets pass under the field, they activate a Hall-effect switch which sends a pulse signal to the control board. The number of pulses determines the volume of water that is delivered for the coffee / espresso products



Coffee Valve and Over Pressure Relief Valve

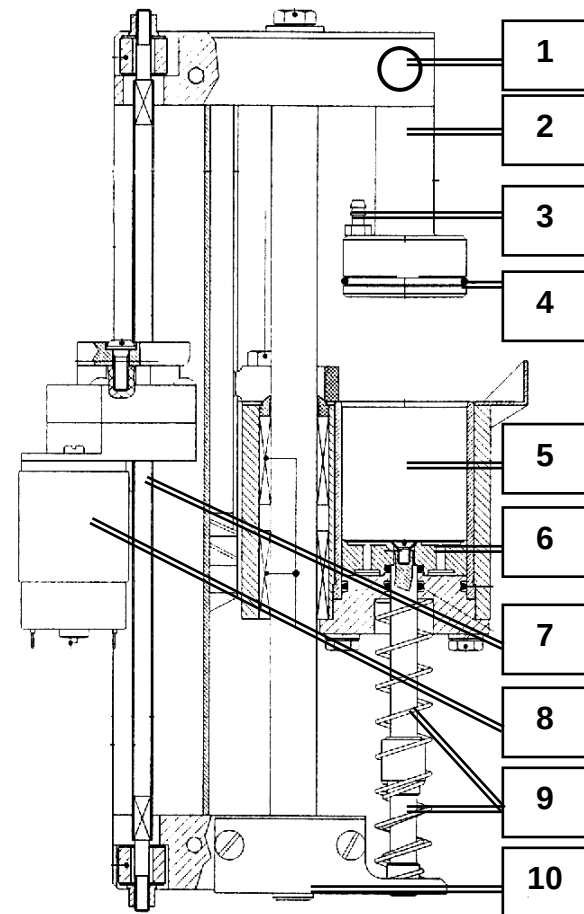
1. Cold water to the inlet of the boiler
2. Coffee Valve (Y1)
3. Over Pressure Relief Valve
4. Flowmeter



Brew Unit

The brew unit is where the hot water extracts the coffee flavors the ground coffee.

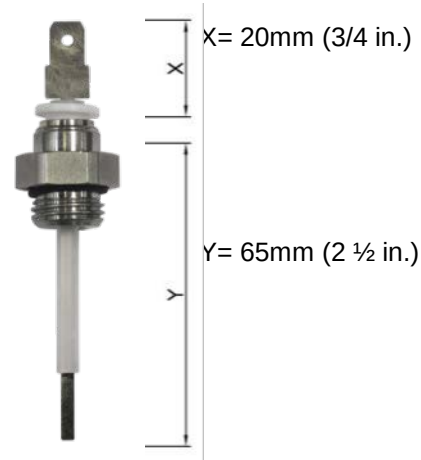
1. Thumb screw, secures the upper piston to the upper block
2. Upper piston
3. Barbed outlet fitting
4. Upper piston O-Ring
5. Brew chamber
6. Diffuser block
7. Threaded spindle
8. Piston motor
9. Lower piston assembly (shaft, springs, and bushings)
10. Lower yoke

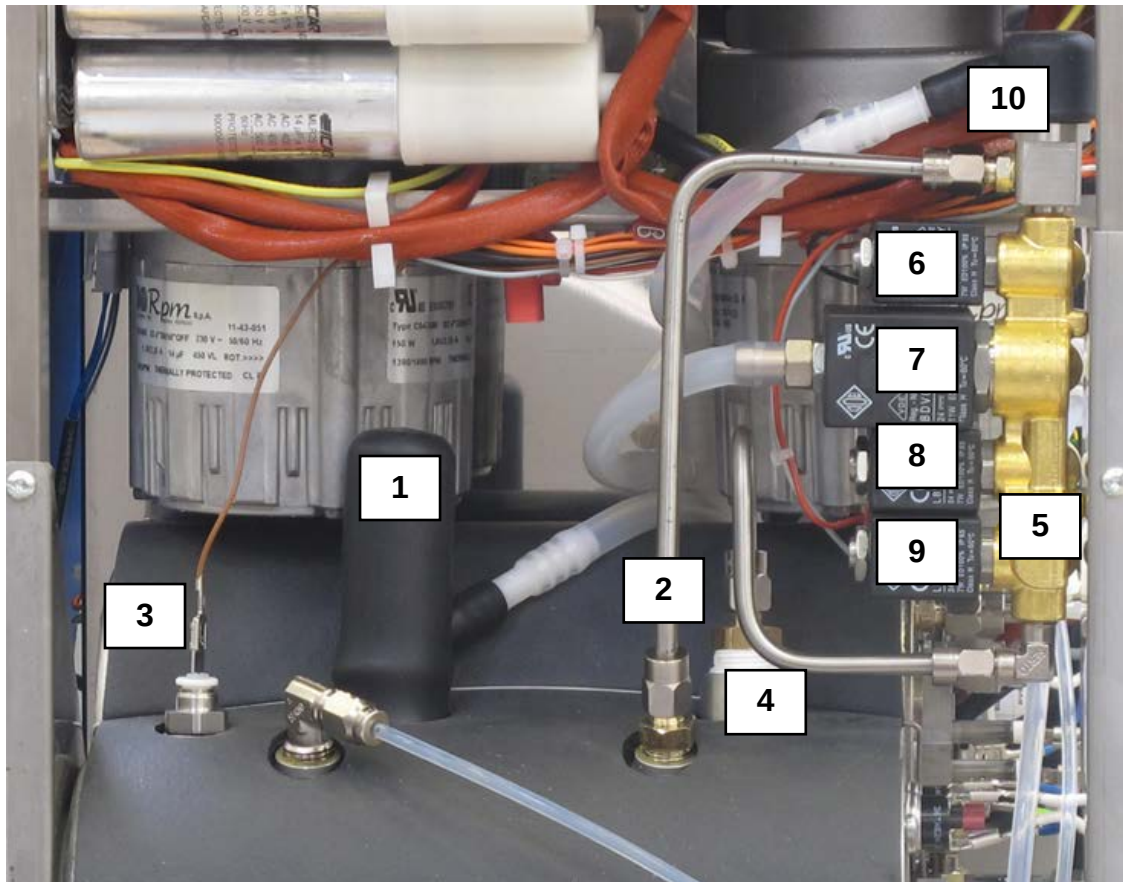


Boiler Components

The following section will cover the components mounted onto or in conjunction with the boiler.

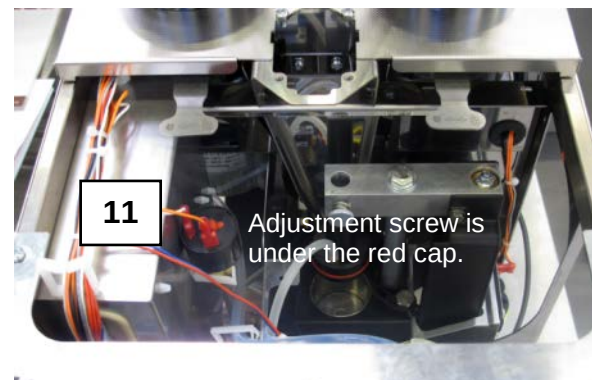
1. Over-pressure Relief Valve
The over-pressure relief valve relieves the water pressure into the drip tray if it exceeds 2.5 bar.
2. Steam Tube Feed to the Steam Block
Feeds steam to the hot water valve block to cappuccino valve, steam valve 1 and steam valve 2.
3. Auto-fill Probe
Auto-fill probe determines whether or not there is a sufficient level of water in the boiler.
 - The metal auto-fill probe sticks down into the boiler approximately 2.5 inches.
 - The metal auto-fill probe is energized with 1-2vac.
 - As the water level rises up, it eventually touches the probe. The 1-2 vac of electricity travels through the water, grounding out against the side walls of the boiler.
 - As the water level lowers and drops below the probe, the ground signal is interrupted, signaling the control board to activate the feeding valve, filling the boiler with fresh water.
4. Hot Water Feed Tube
The hot water feed tube is attached to a fitting that contains a Teflon dip tube. The dip tube sticks down into the boiler approximately 4 inches. Steam pressure in the boiler forces water into the dip tube to supply water under pressure to the hot water / tea valve.
5. Steam – Hot Water Block (see Fig. 50 for details)
The steam/hot water block contains four 24VDC solenoid valves.
6. Cappu Steam Valve (Y20)
Supplies steam pressure to the CF foaming unit to steam milk in a one step machine for cappuccinos and lattes. In a two step machine provides additional steam for steam wand.
7. Steam Valve 1 (Y6)
Is the default steam valve that supplies steam pressure to the steam wand.
8. Steam Valve 2 (Y6')
Is the secondary steam valve that opens in conjunction with the steam valve 1 to supply double the volume of steam pressure flowing to the steam wand. This occurs when "steam strong" is activated in the product definition program parameter.
9. Hot Water Valve (Y4)
Supplies very hot water from the boiler to the hot water or tea wand. The water from the tea valves flows to a "T" fitting where it mixes with cool water from the cold water block's tea valve to temper the water to a more appropriate drinking temperature.
10. Vacuum Breaker
Allows the boiler to be open to atmosphere when the machine does not contain steam pressure.





11. Pressure Switch

A tube "T's" off of the steam block to feed the pressure switch and gauge. The pressure switch maintains the steam pressure in the boiler by opening and closing the electrical circuit to the heater relays on the power print board. Adjustment of the pressure switch is facilitated by turning the small screw under the red cap. Turning the screw counter-clockwise raises boiler pressure while turning the screw clockwise lowers the boiler pressure.



**NOTE! Adjustment of the pressure switch is very delicate.
DO NOT ADJUST MORE THAN 1/8
INTERVALS**

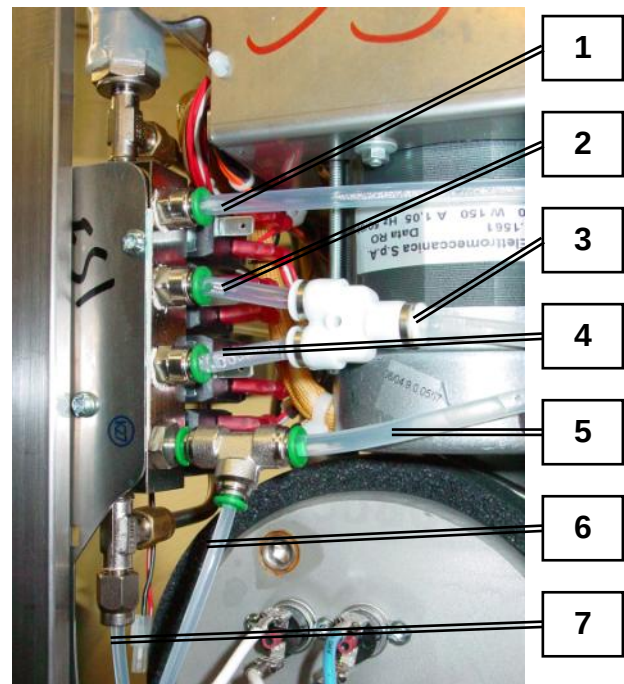
12. Pressure Gauge

The pressure gauge reads the steam pressure in the boiler. Operational pressure for the Evolution is 2.1 bar. The gauge is located behind the outlet door.



Steam Block Outlets

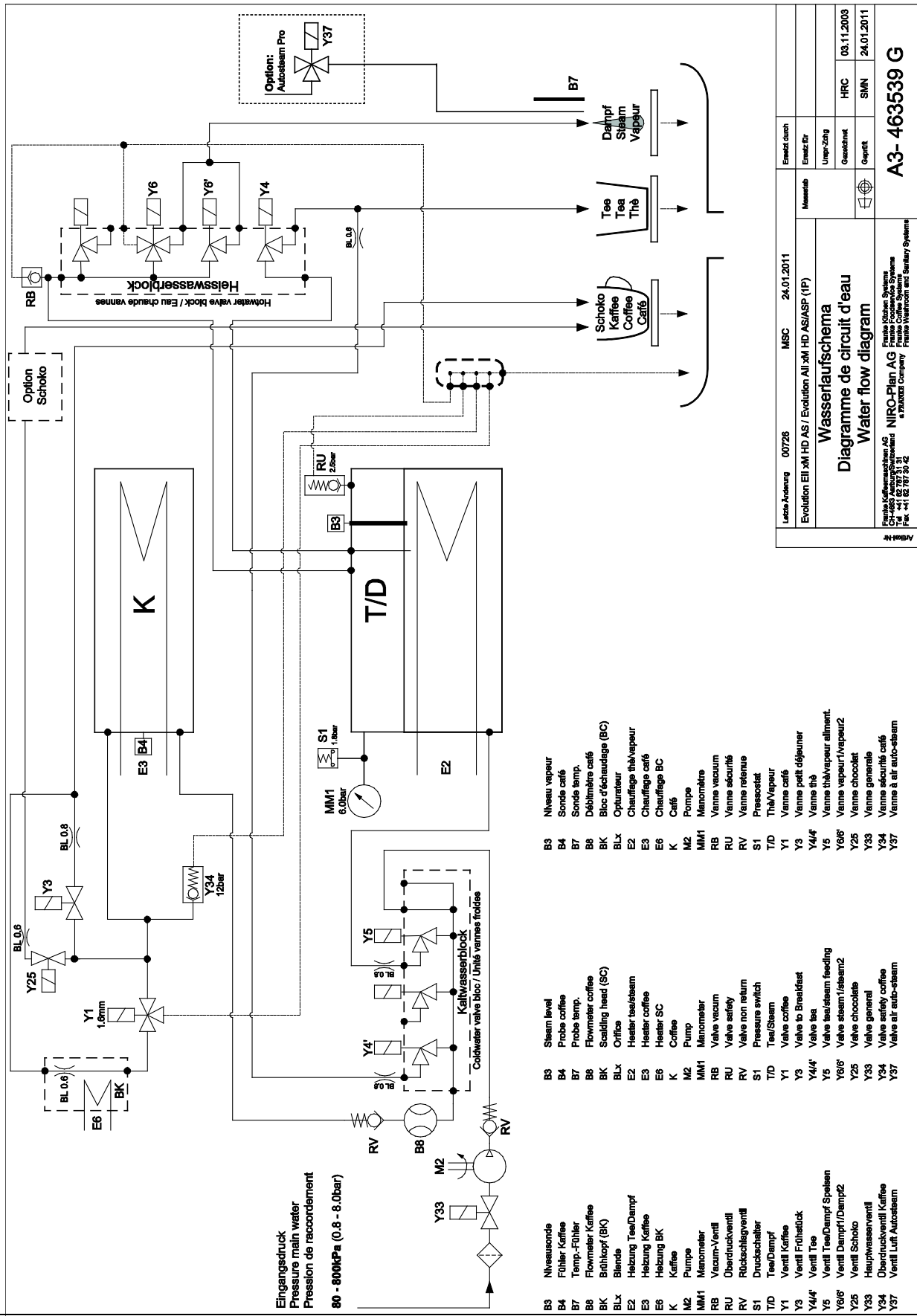
1. Cappu Valve (Y20)
Steam pressure to the CF foaming unit on 1-Steps.
Additional steam pressure to the steam wand on 2-Steps
2. Steam pressure from steam valve 1 (Y6)
3. Teflon tube to the steam wand
4. Steam pressure from steam valve 2 (Y6')
5. Hot water to the hot water or tea wand
6. Cold water from the cold water block's tea valve
7. Steam feed to the pressure gauge and pressure switch



Hydraulic Schematics

Evolution 2-Step Autosteam / Pro

AK3-463539 G



Franke Evolution

Technical Training Manual

Electrical System and Schematics – Chapter 8



Franke Coffee Systems
800 Aviation Parkway
Smyrna, TN 37167
(615) 462-4000

Change log

Date	Changes	Author	Change No.	ID
2012-01-18	New Manual Concept	MPH		

Publisher:

Franke Kaffeemaschinen AG
P.O. Box 235
CH-4663 Aarburg
Switzerland

www.franke-cs.com



Table of Contents

Change log	2
Table of Contents	3
Safety Notes	4
Safety.....	5
Electrical System	5
Electrical System	6
High Voltage Wiring	6
High Voltage System	7
Main power Cord	7
Pump Motor	7
Grinder motors	7
Heating Element.....	7
Brew Unit Block Heater	7
Step-down Transformer.....	8
Heating Element Circuit.....	9
Low Voltage Wiring	10
Wiring Diagrams	13
Contents	13
Legend	13
Milk Print Schematics.....	24

Safety Notes

The installation, setting, repair and maintenance work described in these instructions must be performed only by service technicians trained by Franke Coffee Systems North America Inc. and when using original Franke parts!

Observe the following dangers and warnings when servicing coffee machines with live voltage.

DANGER

DANGER!
Mortal Danger!
Electrocution caused by coming in contact with live voltage.
Safeguard parts with live voltage against contact.

WARNING

WARNING!
Indicates risk of injury!
You may suffer injuries due to moving parts crushing fingers and hands.
Secure moving parts against unintentional movement.

CAUTION

CAUTION!
Indicates risk of minor injury!
Avoid burns caused by hot water, steam, hot milk, or milk foam

NOTE

NOTE!
Indicates possibility of damage to the machine.

Safety

DANGER

Electrical System

Before performing maintenance on any electrical related component, ensure the following:

- Always disconnect from its power source before opening the machine.
- Ensure that the machine cannot be accidentally turned ON.
- Never operate a machine that has been damaged or has a damaged power supply cable.
If the power supply cable to this machine is damaged, it must be replaced with an original power cord.
- Ensure that the machine and power cord are not near any hot surfaces such as gas or electric stoves or ovens.
- Ensure that the power cord is not pinched and does not rub against sharp edges. the machine contains electrically conductive parts. Opening the machine can pose risk of death.
- Do not make any modifications to the machine that are not described in the documentation from Franke.

Repairs should only be made using original replacements and accessory parts.

Electrical System

The electrical system can be separated into three sections:

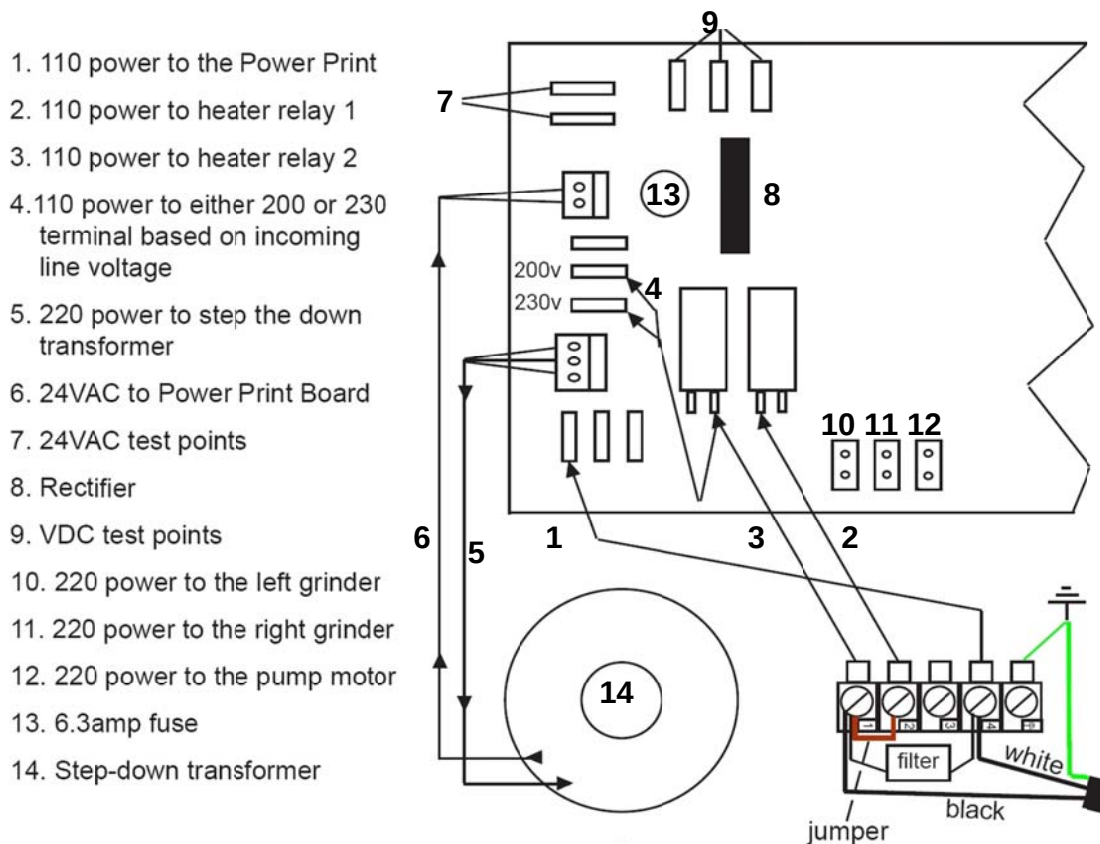
- High Voltage
- Low Voltage
- Logic Bus

High Voltage Wiring

- The main power cord runs to a terminal located near the rear, right hand side of the machine.
- From position 1 of the terminal block, one power leg (black) goes to heater relay 1. From the relay, power runs to the first leg of the element. A jumper wire from the relay also goes to either the 200V or 230V terminal (X12).

Note: the installing technician should measure the AC voltage at the wall outlet and place this wire to the terminal closest to the measured line voltage: (190-220V = 200V terminal) (220-250V = 230V terminal). This allows the the step-down transformer to deliver the appropriate voltage to the power print board.

- The grey wire from position 2 of the terminal block takes the power from the incoming black power wire and runs to the second heater relay. From this relay, power runs to the second leg of the heating element.
- The second power leg (blue) runs from position 4 of the terminal block and runs to a terminal labeled NULL. This provides one leg of unswitched 110V to each of the heating elements
- This terminal, in conjunction with the power running to either the 200VAC or 230VAC terminal completes the 220VAC power required to operate the machine.



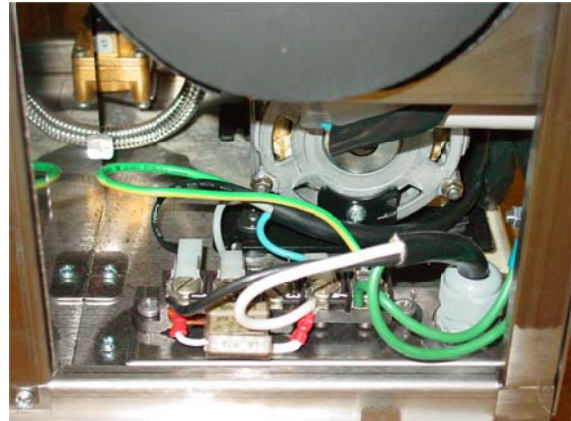
High Voltage System

The high voltage system consists of the:

Main power Cord

The power cord is a 12-3 cord (black, white & green), carrying 220vac.

- The power cord travels from the wall outlet to a terminal block located near the rear, right-hand side of the machine.
- A voltage filter is installed onto the terminal block to prevent frequency interference.



Pump Motor

The pump motor is an air-cooled 220vac motor that spins the pump head to boost incoming water pressure.

Grinder motors

Each grinder is powered by a 220v motor.

- The grinder motors are capacitor-start motors and are "jump-started" by a 10 microfarad capacitor.

Heating Element

The Evolution series boiler heater has a double coil heater element.

- Heater element has two legs, each rated at 220 volts, 2x2750 watts. (Total 5500 watts)



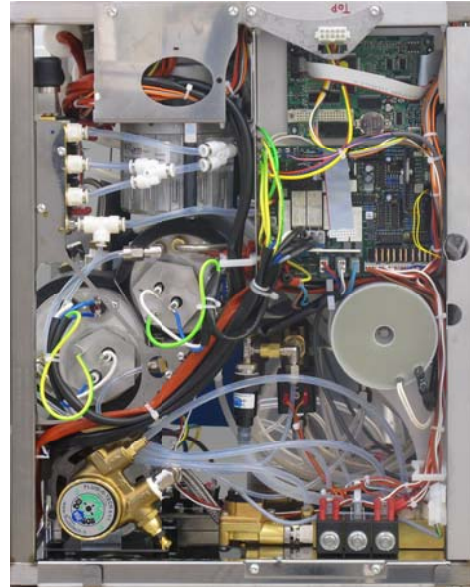
Brew Unit Block Heater

The brew unit is equipped with a 220v ceramic heater that keeps the brew block hot.

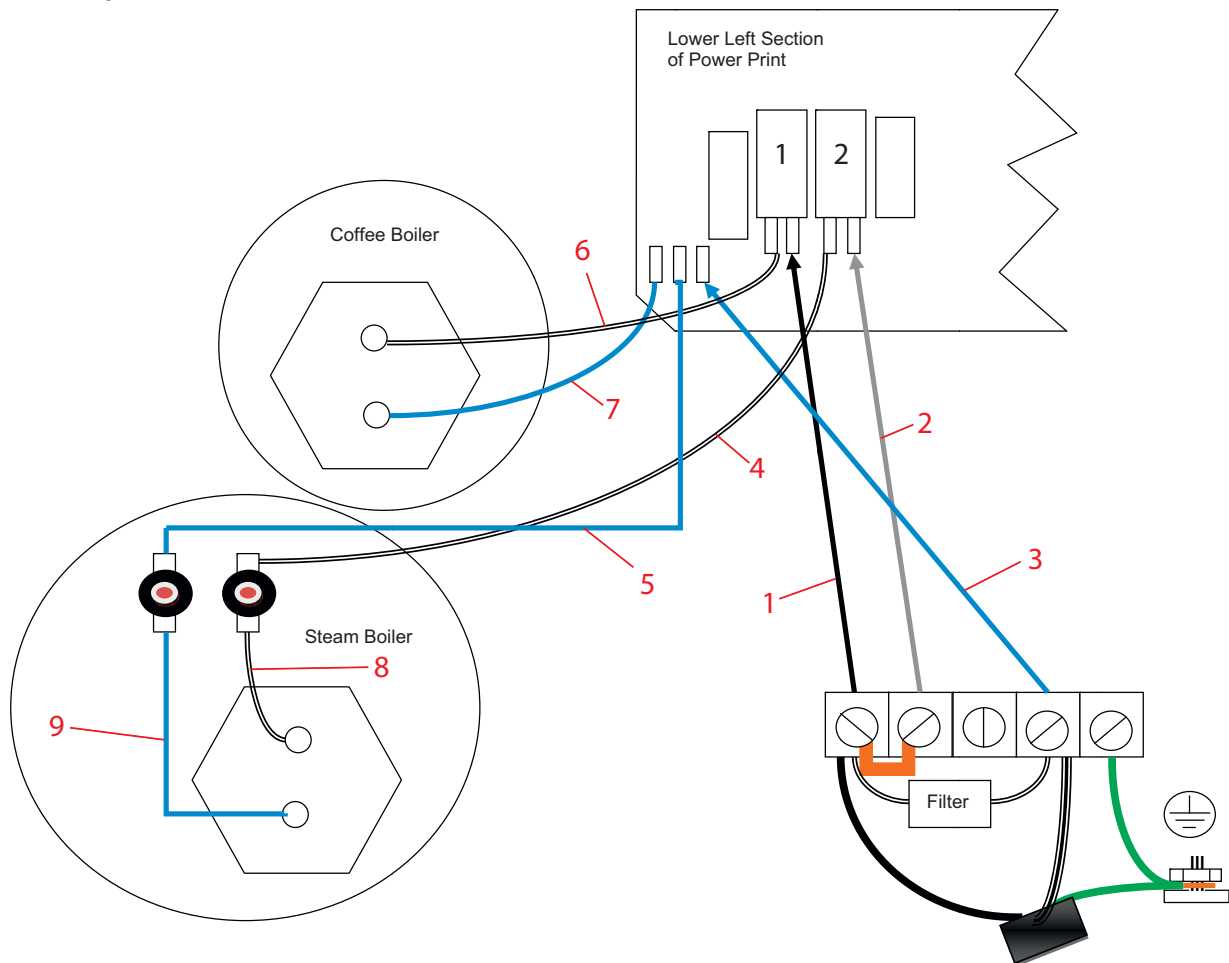
Step-down Transformer

The step-down transformer steps 220vac down to 24vac to supply the rectifier for conversion of AC voltage into DC voltage.

- The step-down transformers output voltage can be changed by placing the jumper lead from the left heater relay into one of two connectors.
- The transformer will output less voltage if the jumper is plugged into the 230V connector.
- The transformer will output more voltage if the jumper is plugged into the 200V connector.



Heating Element Circuit

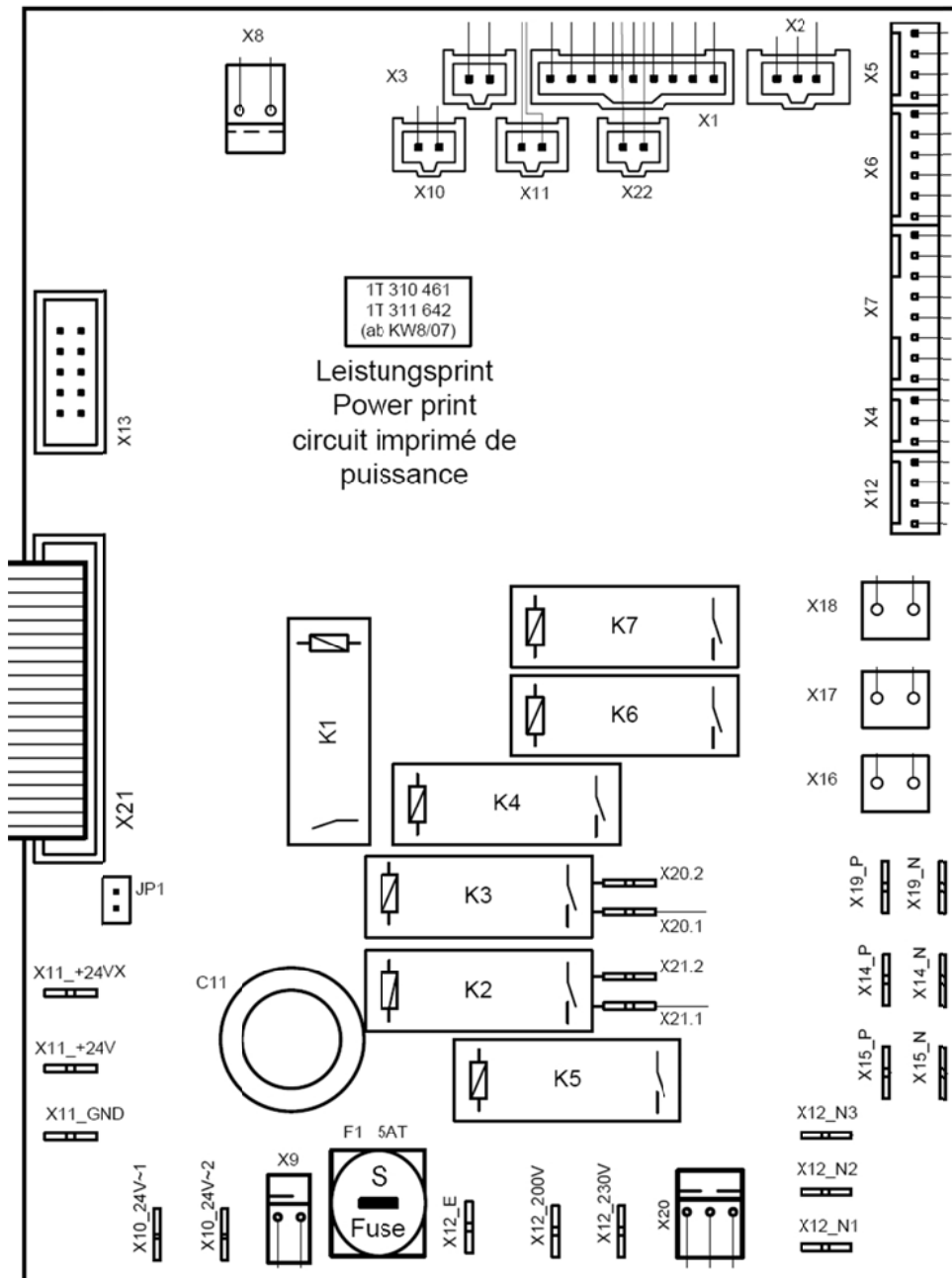


1. 110 Volt power to heater relay 1 from incoming power terminal block.
2. 110 Volt power to heater relay 2 from incoming power terminal block.
3. 110 Volt power to the NULL terminal on the power terminal block.
4. 110 Volt switched leg from heater relay 2 to the right Klixon.
5. Constant 110 Volt power from the power print board to the left Klixon.
6. 110 Volt switched leg from heater relay 1 to the coffee boiler.
7. Constant 110 Volt power from the left thermal limiter to the A leg of the heating element.
8. 110 Volt power from the Klixon to the B leg of the heating element when the heater relay is active.
9. Constant 110 Volt power from the left thermal limiter to the A leg of the heating element.

Low Voltage Wiring

AC power traveling from the step-down transformer is converted into dc voltage by the rectifier. This dc voltage is used to power all of the solenoid valves on the machine as well as the brew piston motor.

The 24vdc components are powered by triacs. The diagram below indicates which triac powers which component.



Connector	Pin Number	Wire Color	Description / Function
X1	1	black	Grounds container door input
	2	orange	+24V
	3	grey	Coffee outlet input
	4	orange	+24V
	5	white	Pressure control switch
	6	orange	+24V
	7	grey	Piston control switch
	8	orange	+24V
	9	brown	Autofill level probe
X2	1		Reserve for cup monitoring
	2	white	Milk level sensor
	3	brown	Milk level sensor
X3	1	black	Fresh water / waste water tanks
	2	orange	+24V Fresh water / waste water tanks
X4	1	grey	Flowmeter
	2	violet	Flowmeter
	3	red	Flowmeter
X5	1	white	Feeding valve output
	2	red	+24Vx
	3	brown	Steam valve output
	4	red	+24V
X6	1	brown	Coffee valve output
	2	red	+24Vx
	3	grey	Tea valve output
	4	red	+24Vx
	5	white	Mains valve output
	6	red	+24V
X7	1	black	Cappu Steam valve output
	2	red	+24Vx
	3	blue	Cappu Air valve / ASP Air valve output
	4	red	+24Vx
	5	grey	Cappu rinse output
	6	red	+24Vx
	7	white	By-pass valve output
	8	red	+24Vx
X8	1	green	Brew group motor
	2	black	Brew group motor
X9	1	white	24VAC output
	2	white	24VAC output
X10	1	black	Temperature sensor coffee boiler input (Evolution Top)
	2	black	

Connector	Pin Number	Wire Color	Description / Function
X11	1	black	Temperature sensor hot water boiler input
	2	black	
X12	1	white	Steam valve 2 output
	2	red	+24V
	3	brown	Cold water by-pass valve output
	4	red	+24V
X13	1-10		Reserved for coin checker/POS system
X20	1	blue	Neutral to Step-down transformer
	2	red	200VAC input to Step-down transformer
	3	orange	230VAC input to Step-down transformer
X21	Ribbon		Connection to CPU Print board
X22	1	black	Temperature sensor Autosteam input
	2	black	
JP1			24VDC jumper for milk print
			(ONLY for Evolution)*
			* DO NOT SET on Ecolino coffee machine

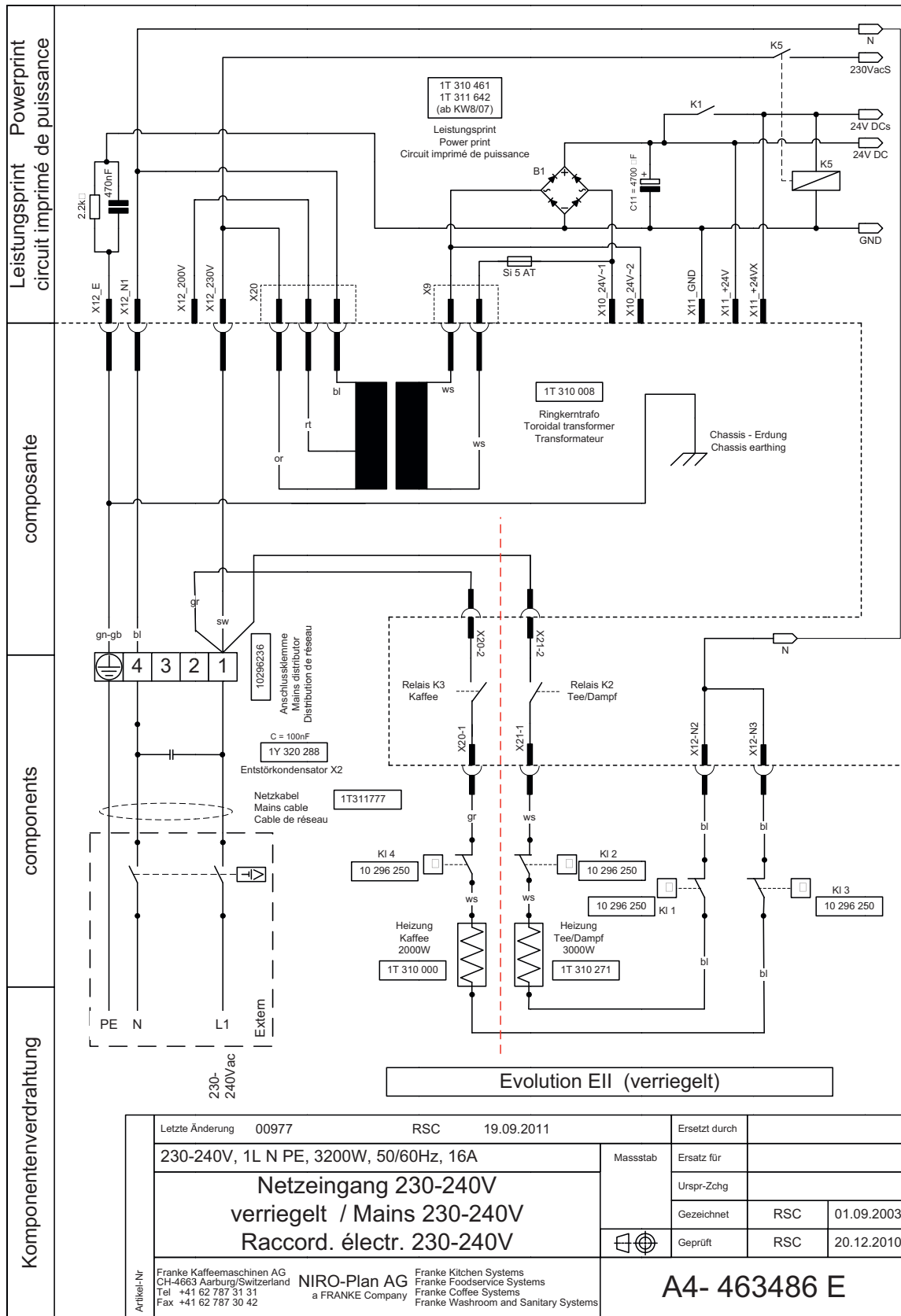
Wiring Diagrams

Contents

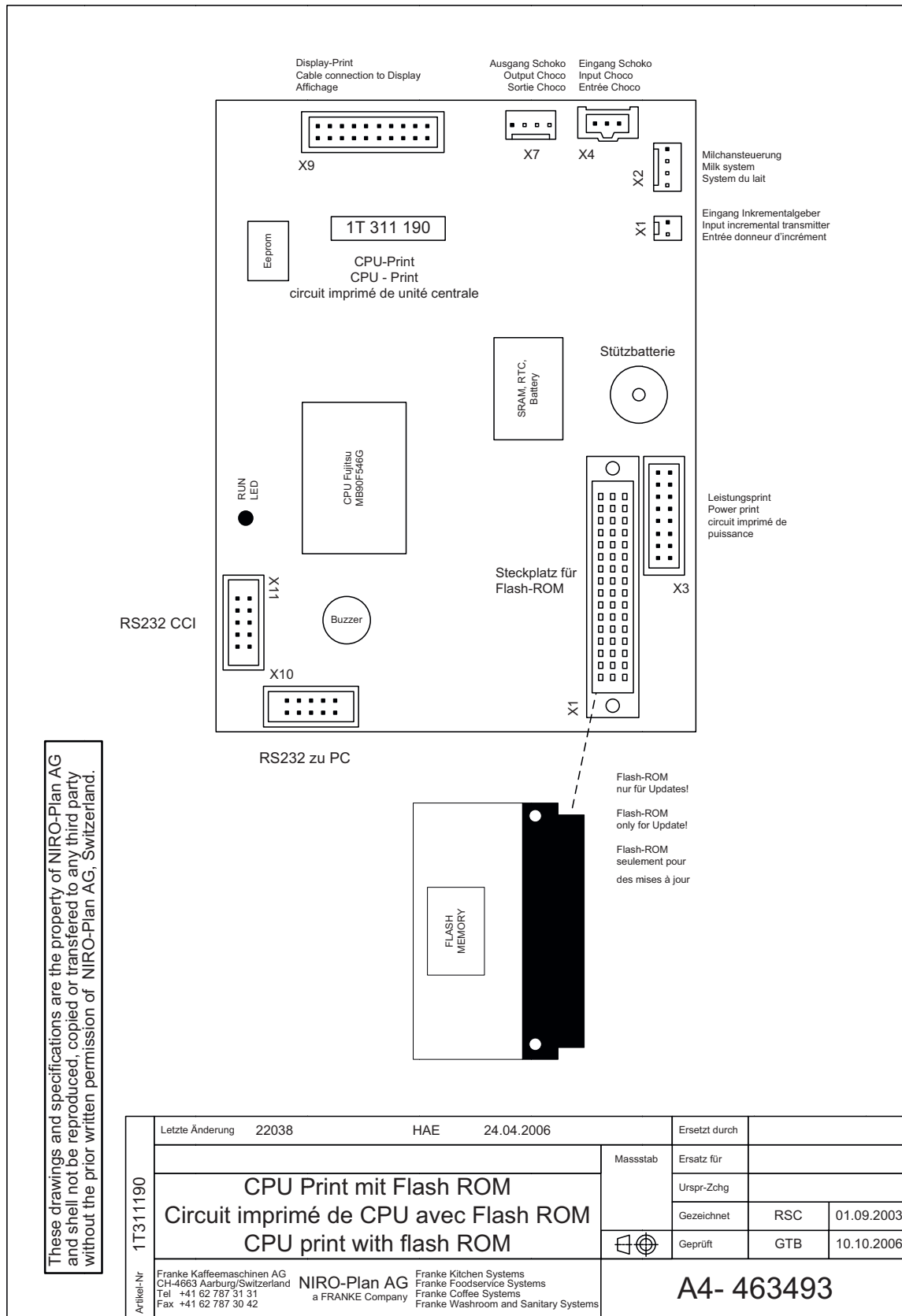
Mains	463491
Overview	463492
CPU board with Flash Memory	463493
Operator print with display	463494
Power print	463495
Outputs 230V~	463496
Inputs	463497
Output 230 V~	463498
Outputs Cappu	463499
Inputs/Outputs CPU print	463512

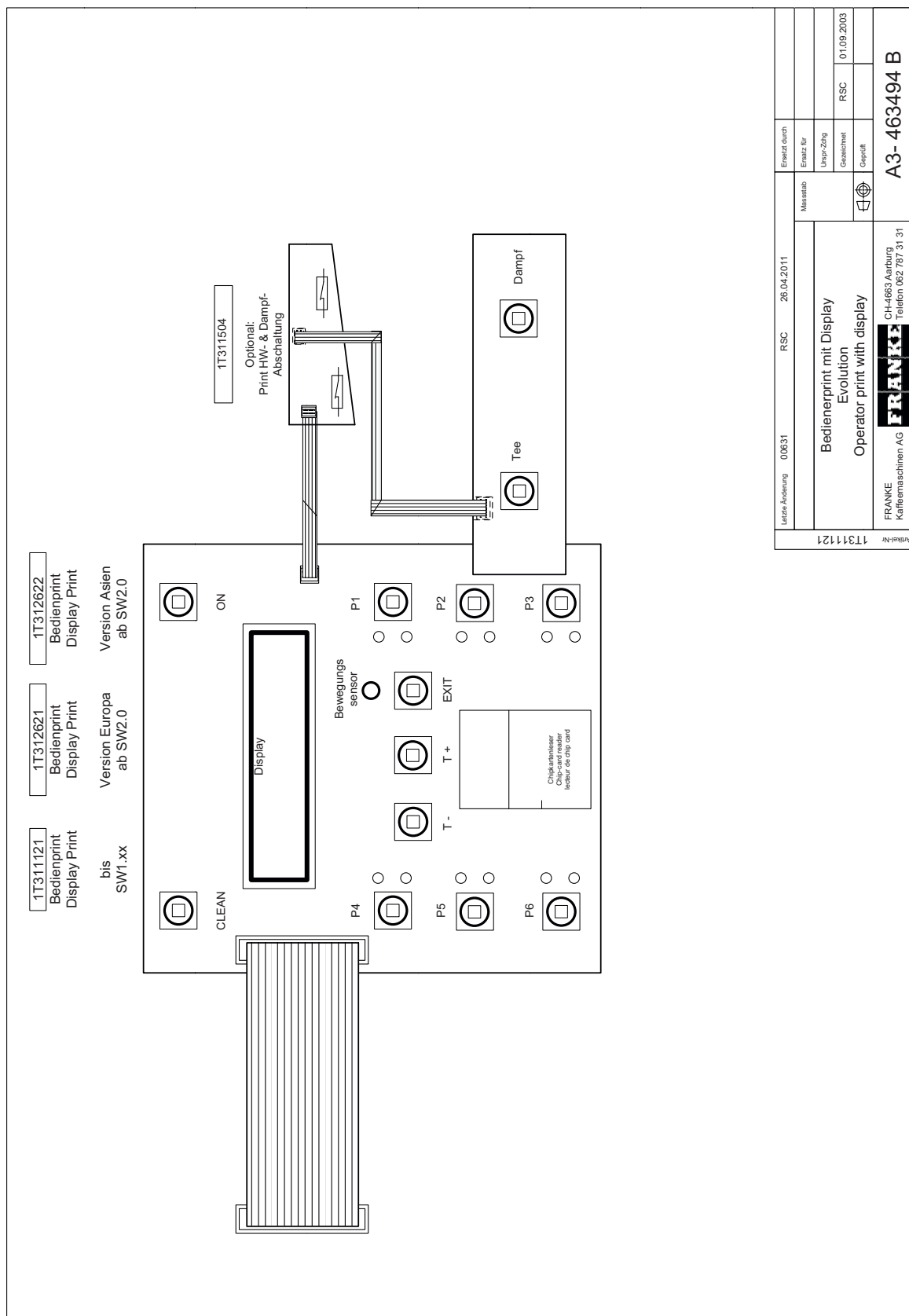
Legend

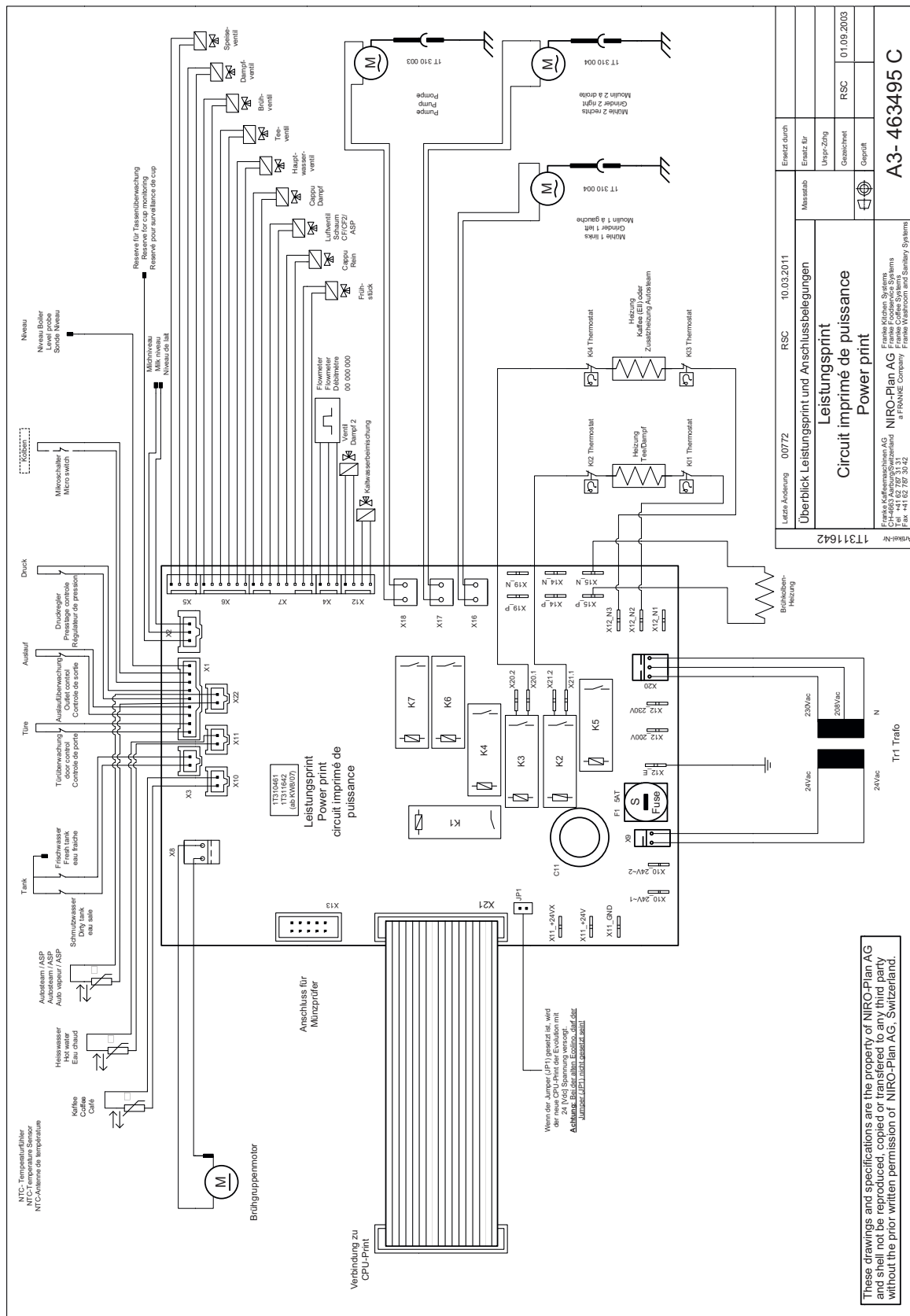
br	brown
rt	red
or	orange
gb	yellow
gn	green
bl	blue
gr	grey
ws	white
sw	black
vio	violet

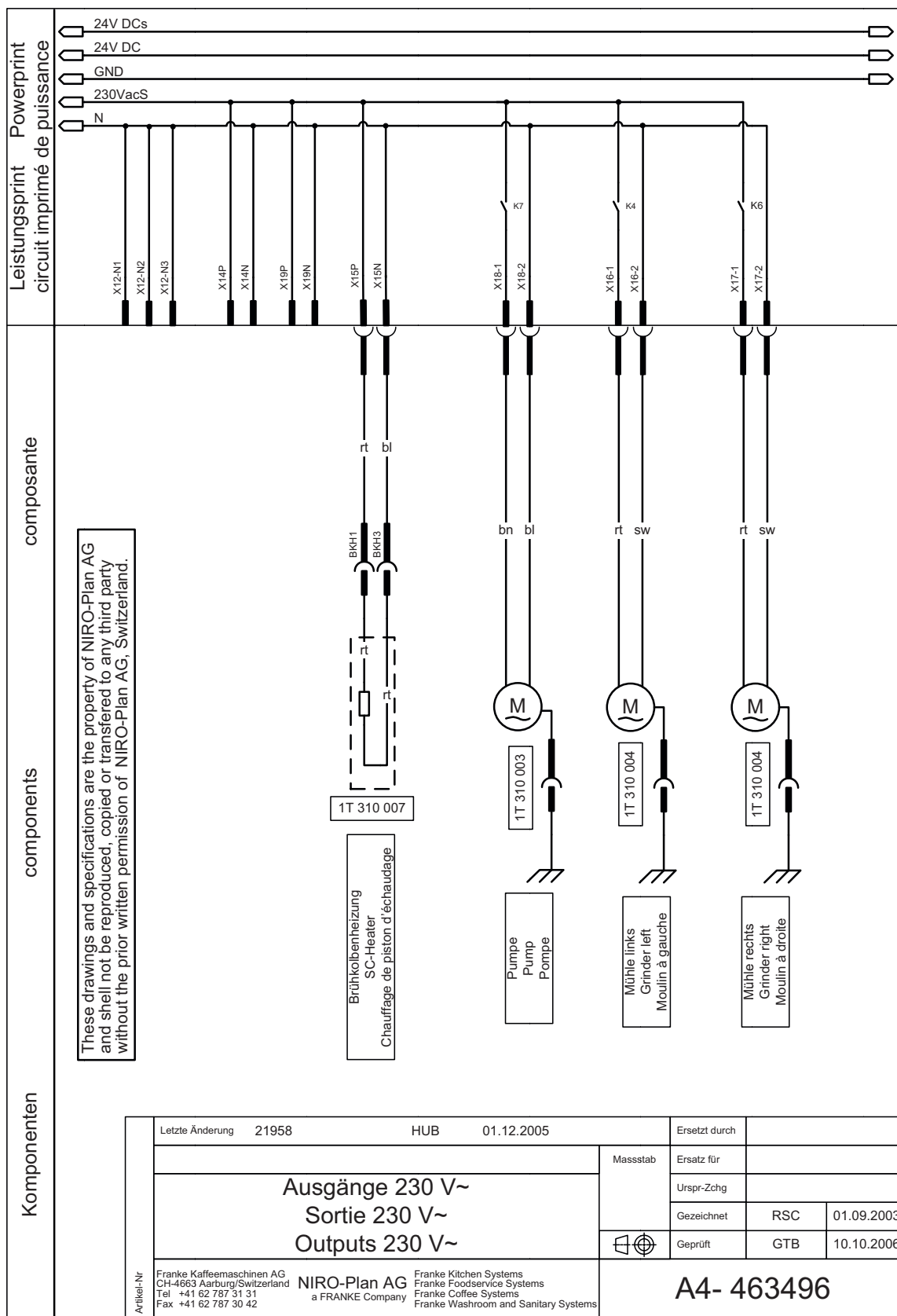






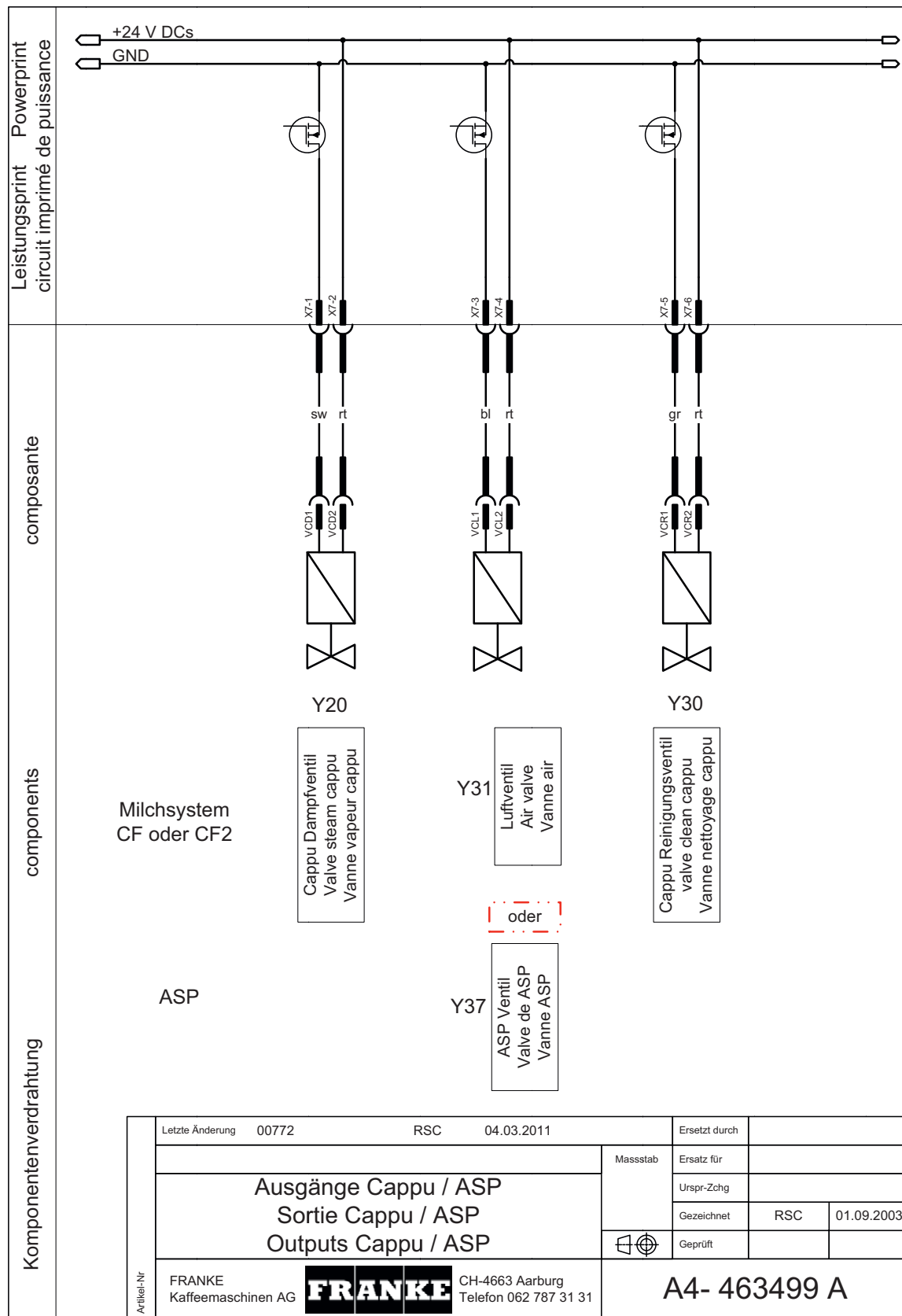


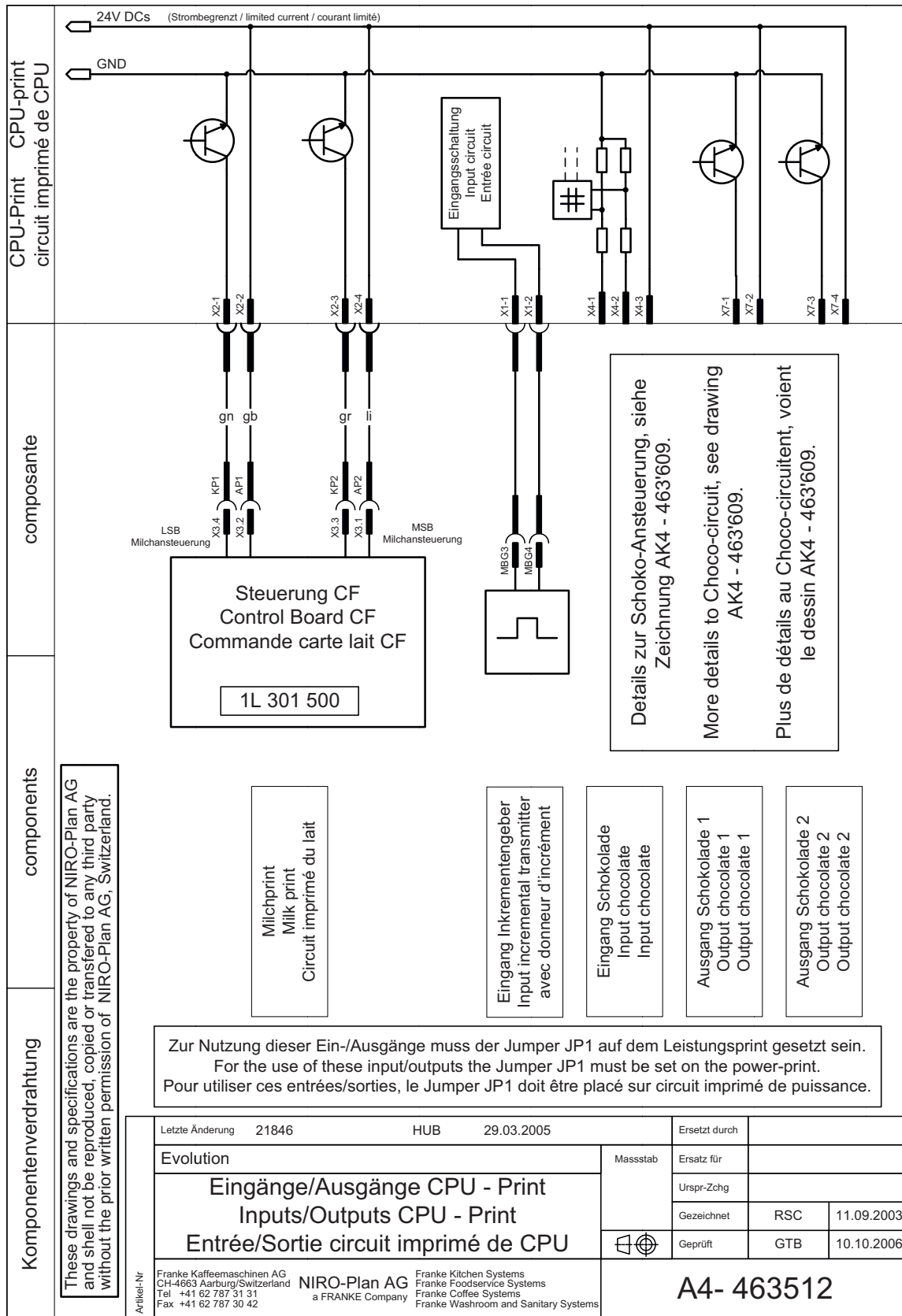




TD-103514.docx

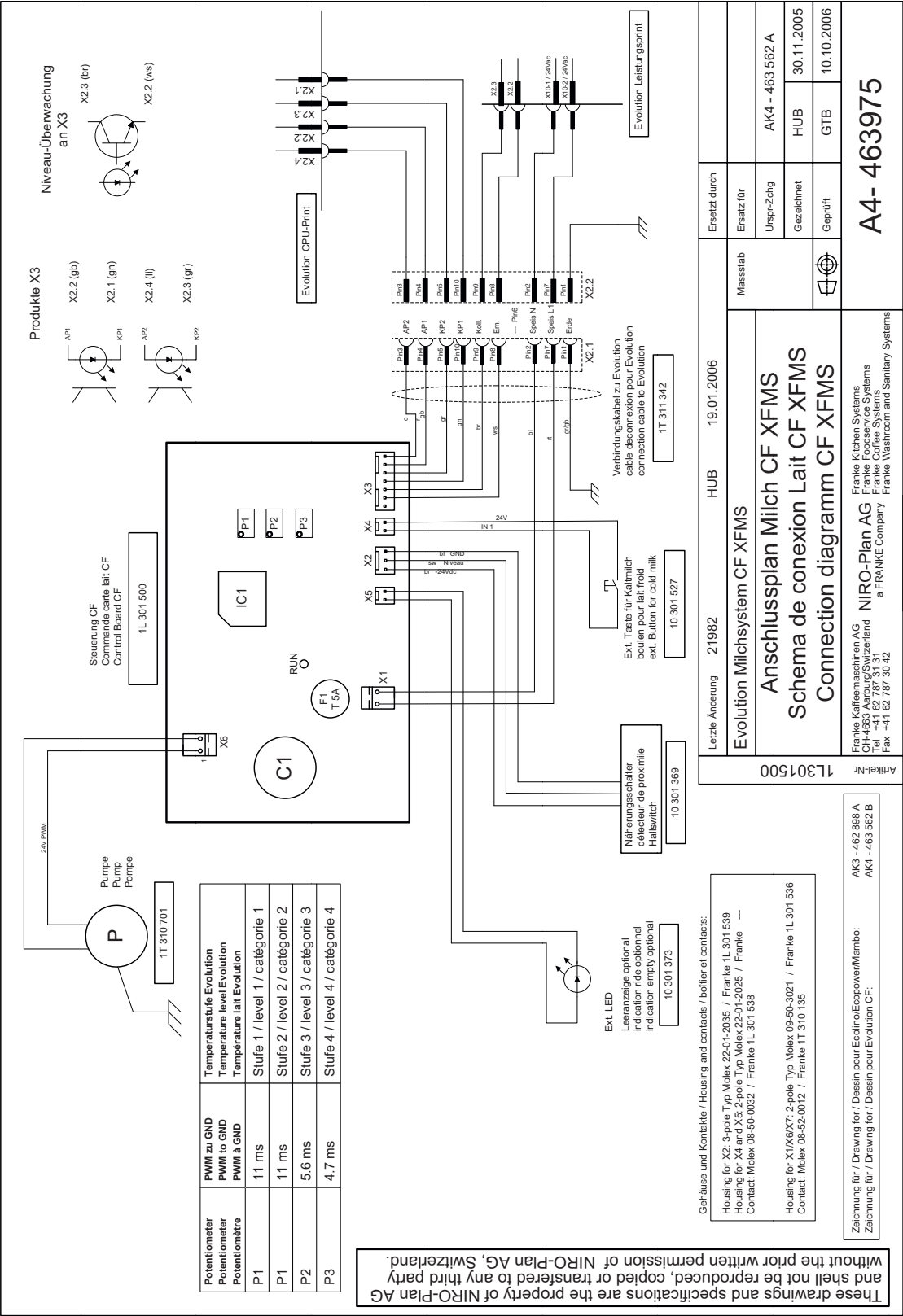








Milk Print Schematics



Franke Evolution

Technical Training Manual

Checklists and Certificates – Chapter 9



Franke Coffee Systems
800 Aviation Parkway
Smyrna, TN 37167
(615) 462-4000

Change log

Date	Changes	Author	Change No.	ID
2012-01-18	New Manual Concept	MPH		

Publisher:

Franke Kaffeemaschinen AG
P.O. Box 235
CH-4663 Aarburg
Switzerland

www.franke-cs.com

Table of Contents

Change log	2
Table of Contents	3

Franke Evolution

Technical Training Manual

Service Information – Chapter 10



Franke Coffee Systems
800 Aviation Parkway
Smyrna, TN 37167
(615) 462-4000

Change log

Date	Changes	Author	Change No.	ID
2012-01-18	New Manual Concept	MPH		

Publisher:

Franke Kaffeemaschinen AG
P.O. Box 235
CH-4663 Aarburg
Switzerland

www.franke-cs.com

Table of Contents

Change log	2
Table of Contents	3
Service Information Evolution.....	4

Service Information Evolution

