TECHNICAL INFORMATION
CVA4070 / CVA4075 Coffee System

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A Warning and Safety Instructions

General
All repairs should be performed by a trained technician in strict accordance with national, state and local codes. Any repairs or maintenance performed by unqualified personnel could be dangerous.

When servicing, modifying, testing or maintaining appliances, all applicable laws, regulations and accident prevention guidelines must be observed.

Before any service work is started, the machine must be safely disconnected from its power source.

Even with the machine switched off, voltage may exist on some components.

After work has been completed, as a matter of standard practice, a visual as well as an operational check should be performed.

A touch current measurement has to be performed on all components that are not connected to ground.

Note
Prior to starting service or repair work, remove all containers and the drip tray with the spill guard grid from the appliance.

Risk of burning or scalding
Components maybe hot.
Pressurized steam maybe present.

To protect from burns
1. switch the appliance off about 1 hour before starting service or repair work, so the flow-thru heaters can cool down, or
2. in the service mode, pump water through the flow-thru heaters for about 1 minute, so they can cool down.
**Touch current measurement**

**Note**
Touch current measurement should be carried out on all accessible conductive parts that are not connected to ground.

**Warning!**
Touch current measurement may only be performed after the ground connection of the unit being tested has been checked and found to be satisfactory!

A defective appliance, as well as accessible conductive parts that are not connected to ground, may carry dangerous voltages!
1.0 Construction and Design

1.1 Appliance Overview

1.1.1 Front View

![Diagram of CVA4070 Coffee System](image)

- **1.** Touch controls (lowest control 'On/Off' button)
- **2.** Display
- **3.** Touch controls (lowest control 'Clear' button)
- **4.** Top lighting
- **5.** Door grip
- **6.** Hot water spout
- **7.** Bottom lighting
- **8.** Plastic drip tray
- **9.** Metal drip tray
- **10.** Coffee dispenser (height adjustable)
- **11.** Froth dispenser (removable for better cleaning)
- **12.** Intake hose (removable together with dispenser)

*Figure 1-1: CVA4070 - Front Overview*
1.1.2 Interior (Front of Appliance Opened)

Figure 1-2: CVA4070 - Inside Overview

- 1. Main switch
- 2. Cover for ground coffee funnel
- 3. Funnel for ground coffee
- 4. Grind control lever
- 5. Coffee bean container
- 6. Drip tray with no-spill grid for transport
- 7. Water tank
- 8. Brew unit
- 9. Waste unit
1.2 Technical Data

- The CVA4070 is designed to be built into cabinets and must be fully installed before any operation.
- This appliance can be installed above another appliance but, there must be a solid, closed shelf between the base of the coffee machine and the top of the appliance below.
- Exercise caution while operating the appliance; coffee, hot water and steam can cause burns.

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<td>Weight *1</td>
<td>kg 27.5</td>
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<tr>
<td>Ease of operating</td>
<td></td>
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<tr>
<td>Intelligent dialog control with large standard text display</td>
<td>X</td>
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<tr>
<td>Languages available</td>
<td>17</td>
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<tr>
<td>Sensor pad controls</td>
<td>X</td>
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<tr>
<td>Electronic control with step-by-step user guide</td>
<td>X</td>
</tr>
<tr>
<td>Function</td>
<td></td>
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<tr>
<td>Portion sizes</td>
<td>2 (espresso and coffee)</td>
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<tr>
<td>Brew two cups at the same time</td>
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<tr>
<td>Select amount of coffee per cup</td>
<td>g 7–14</td>
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<tr>
<td>Program the necessary amount of water per cup</td>
<td>X</td>
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<tr>
<td>Select Cappuccino via touchpad and user guide</td>
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<tr>
<td>Prepare milk froth separately</td>
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<tr>
<td>Heat water</td>
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<td>Brew a different type of coffee using ground coffee</td>
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<td>Program individual coffee user profiles</td>
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<td>Set the start and end times</td>
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<tr>
<td>Automatic rinsing and cleaning program</td>
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<tr>
<td>Set water hardness</td>
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Table 1-1: Technical Data (Continued on Table 1-2)
**Technical Information**

**CVA4070 / CVA4075 Coffee Systems**

### Model

**CVA4070, CVA4075**

### Equipment

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<td>Liters 2.5</td>
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<tr>
<td>Removable coffee bean container</td>
<td>g 500</td>
</tr>
<tr>
<td>Waste container</td>
<td>Portions approx. 25</td>
</tr>
<tr>
<td>Drip tray with spill guard grid for secure transport</td>
<td>1 1.8</td>
</tr>
<tr>
<td>Height adjustable coffee spouts, adjustable to cup height</td>
<td>cm 5.5 – 9.5</td>
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<tr>
<td>Hot water jet</td>
<td>X</td>
</tr>
<tr>
<td>Flowstable magnetic piston pump</td>
<td>2</td>
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<tr>
<td>Aluminum flow-thru heater</td>
<td>2</td>
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<tr>
<td>Brew unit – removable and easy to clean</td>
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</tr>
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<td>Additional socket to connect the coffee maker and the dish warming drawer</td>
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### Indicators

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<td>A 12</td>
</tr>
<tr>
<td>Breaker cable length</td>
<td>ft 9</td>
</tr>
</tbody>
</table>

### Safety

<table>
<thead>
<tr>
<th>Safety</th>
<th>CVA4070, CVA4075</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set system lock</td>
<td>X</td>
</tr>
</tbody>
</table>

*Table 1-2: Technical Data (Cont. from Table 1-1, Cont. on Table 1-3)*
## Technical Information

<table>
<thead>
<tr>
<th>Model</th>
<th>CVA4070, CVA4075</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessories supplied</td>
<td>X</td>
</tr>
<tr>
<td>Kettle-type socket</td>
<td>X</td>
</tr>
<tr>
<td>Milk container and attachment for preparing cappucino</td>
<td>X</td>
</tr>
<tr>
<td>Descaling and cleaning agents</td>
<td>X</td>
</tr>
<tr>
<td>Spoon for ground coffee</td>
<td>X</td>
</tr>
</tbody>
</table>

### Optional accessories available

- **Combination strip HKL 60:** Combination strip for use in any combination of oven (60 cm), compact oven, or steam oven and coffee maker.
- **Mobile built-in cabinets MES 45 and MES 60**

### Miscellaneous

| Consumption in standby mode | W | <1 |

*Table 1-3: Technical Data (Continued from Table 1-2)*

*1 Make sure that the cabinet or the wall are stable enough to support the appliance.*
1.2.1 Electrical Information

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Electrical Requirements</th>
<th>Plug Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVA4070</td>
<td>120 VAC 15amp</td>
<td>NEMA 5-15</td>
</tr>
</tbody>
</table>

Table 1-4: CVA4070 Electrical

1.2.2 Plumbing Information

None – not applicable
1.3 Layout of Components

1. Reed contact– ground coffee funnel
2. Power electronic EPL
3. Light barrier – coffee bean container
4. Grinder
5. Reed contact– door
6. Light barrier – coffee bean container
7. Interior lamp
8. Control electronic EPX
9. Main power switch
10. Microswitch grinding amount compensation
11. Door lamp
12. Door lamp
13. Brew unit drive
14. Contact spring drip tray(3 springs)
15. Solenoid – hot water
16. Reed contact– waste container
17. Flow meter
18. Steam pump with temperature limiter
19. Coffee/hot water pump with temperature limiter
20. Solenoid – steam
21. Interior lamp
22. Temperature sensor– flow-thru heater coffee/hot water
23. Flow-thru heater coffee/hot water
24. Temperature limiter– flow-thru heater coffee/hot water
25. Flow-thru heater steam
26. Temperature sensor– flow-thru heater steam
27. Temperature limiter– flow-thru heater steam
28. Temperature fuse (one for each flow-thru heater)
29. Interference suppressor
30. Not Used
31. Socket for main power

Figure 1-3: CVA4070 Layout Components
2.0 Installation

2.1 Product Dimensions

Figure 2-1: CVA4070 - Plumbing
2.2 Installation Procedure

**Note:**
Make sure power is not supplied to the appliance while installation or maintenance work is performed. Disconnect the power supply to the work area by unplugging the unit, tripping the circuit breaker. The coffee system must be installed into cabinetry before being used.

![CVA4070 - Adjusting Feet](image_url)

**Figure 2-2: CVA4070 - Adjusting Feet**

1. Unscrew the height adjustable feet (fig. 2-1) on the underside of the machine about 1/16" (2 mm).
2. Push the appliance all the way back into the cabinet and center it.

**Note:**
If necessary level the unit with the four height adjustable feet.

**Note:**
The feet can be turned out up 3/8" (10 mm).
If your cabinet has 3/4” (19 mm) side walls, drill four holes for the mounting.

3. Center the unit and Make centers of mounting holes.
4. Take the unit of the niche and drill four holes at the screws markings (1/16” [2 mm], diameter 3/16” [4.5 mm]).
5. Plug the appliance into the electrical outlet.
6. Open the door and partially tighten the screws.

**Figure 2-3: CVA4070 - Mounting Locations**

### 2.2.2 Adjusting the Door Hinges

The door hinges can be adjusted if the door cannot be opened easily.

**Figure 2-4: CVA4070 Adjusting Door Hinges**
3.0 Commission and Operation

3.1 General Operation

3.1.1 Touch Controls
Select a touch control with your fingertip to use the machine.

3.1.2 Display
To select a menu, select the touch control next to the respective menu point.

If more features can be selected under one menu point, the menu has three dots (e.g, "settings...")

"more" / "back": if there are more menus which are not immediately shown, select "more" or "back" to see further options.
"Clear": to go back to the previous screen
"Stop": to cancel coffee preparation
"OK": to save the settings.

3.1.3 Before the First Use

Note:
The appliance must be correctly installed and connected before the first use.

Note:
Clean the appliance and remove protective foils before the first use.
3.1.4 Turning On

1. Select "On/Off" to turn the coffee system on.
   - The display shows the clock. See "Settings - Clock - Setting the time of day" to set the time.
   - During the very first use, you will be prompted to select a language.

2. Select the desired language touch control and then "OK".
   - The ✋ symbol indicates the "Language" setting. If you accidentally select an unfamiliar language, simply look for the ✋ symbol. Touch the control next to the flag symbol and select your language of choice.

3. Customize the coffee system to your desired settings.

**Note:**
Prepare two cups of coffee and dispose of them, this will clean any coffee residues from the brew unit left from the quality control tests at the factory.

3.1.5 Turning Off

1. Select "On/Off".
   - The display shows the time of day. After 60 seconds the display turns off (depending on the setting). See: Settings - Clock".

**Note:**
If the rinse automatic feature is turned on the same machine will begin rinsing if a coffee was prepared that day.
3.2 Language Settings
To show the displays in the desired language, select the language before the first use.

1. Select "Settings" from the main menu during the pre-heating phase or in the main menu.

2. Select "Language"

3. Select the desired language. To see more language options, select "more". Language options: English, German, Espanol, Francais, Italiano, Polski and Portugues.

5. Select "OK" to save the selection. All displays are shown in the selected language.

6. To go back to the main menu, select "Clear".
3.3 Clock Settings

1. Select "Settings".

2. Select "Clock".

3.3.1 Setting the Time of Day

1. Select "Enter Time".
2. Select "+" or "-" with the right touch controls to select the hours.
3. Set the minutes by selecting "Minutes".
4. Select "+" or "-" with the right touch controls to select the minutes.
5. Select "OK".

3.3.2 Clock Display Size

The size of the clock display can be adjusted. The options are "normal" or "large".

1. Select the "Size" touch control.
   - The selected size is highlighted in the display.
2. Select the "Size" touch control until the desired size is highlighted.
3. Select "ok" to save the selection.

3.3.3 12 or 24 Hour Clock

The clock display can be set to the 12 or 24 hour clock.

1. Select the respective touch control. The selected display is highlighted.
2. Select "OK" to save the selection.
3.3.4 Clock Display On/Off
The clock can be displayed or turned off.

- If the display is turned on, the time of day is displayed when the machine is turned off.

- If the option is set off, the display turns off after 60 seconds.

1. Select "Clock display". The selected display is highlighted.
2. Select "OK" to save the selection.

3.4 Filling the Water Tank
The beans and the water quality is important for a good espresso or coffee. The water tank must be washed and filled with fresh cold drinking water before each day of use. The unit displays a reminder when turned on.

Note:
Never add hot water or any other liquids except cold water to the water tank.

Note:
Do not use mineral water. Mineral water leads to heavy calcium built-up in the machine that can damage the unit.

1. Open the appliance door by holding the grip next to the hot water spout and pulling the door towards you.
2. Pull the water tank out.
3. Fill the container with fresh, cold tap water to the "Max." mark.
4. Close the lid and push the water tank into the unit until it clicks into place.

**Note:**
The water tank must be positioned correctly or the valve will leak. If the water tank has not clicked into place, pull the tank out, check and clean the niche.

### 3.5 Filling the Beans Container

**Note:**
Only fill espresso or coffee beans in the beans container. Anything else - including ground coffee - will damage the grinding unit. Caramelized or otherwise pre-treated beans or sugar containing beverages must not be filled into the appliance. It will damage the coffee system.

1. Pull the bean container out.

2. Push the lid back and fill the container with roasted coffee beans.
3. Push the lid back into place and put the beans container back into the appliance.
4. Close the door.

3.6 Filling Ground Coffee
A funnel for ground coffee is provided in case you would like to prepare a different coffee type, e.g. decaffeinated coffee.

![Figure 3-4: CVA4070 Ground Coffee Funnel Lid](image)

1. Pull the container for the ground coffee out of the appliance and lift the funnel lid.
2. Place one spoonful of ground coffee into the funnel, (using the supplied spoon) and close the lid.
3. Push the container into the appliance and close the door.

See “Making Coffee - Espresso and coffee made from ground coffee”. The lines must be rinsed daily before the first use. This will happen automatically if "Rinse automatic" is set to "On" (see "Settings - Rinse Automatic") and the machine is cold. After heating, hot water runs out of the two spouts into the drip tray.

3.7 Adjusting the Dispenser Height

To prevent the coffee or espresso from cooling prematurely and to achieve a better crema the coffee dispensense can be adjusted to minimize the distance to the cup.
3.8 Adjust the Grinder Setting

1. Push the slide control to the left for a finer grind or to the right for a coarser grind.

- You should be able to feel the notches when moving the slide control.

- If the slide control will not move:
  1. Close the machine and dispense a cup of coffee.
  2. Then try to move the slide control again
3.9 **Steam System**

The appliance has two heating systems. That allow for independent preparation of froth/cappuccino or espresso/coffee. The second heating system can be turned off to save energy during the heating phase e.g. if froth is not prepared very often.

When the steam system is turned off and froth or cappuccino is selected, the unit must heat up first to produce steam. As long as the coffee system was not completely turned off, the steam system is on.

The steam system is turned on by default.

3.10 **Froth Dispenser/Intake Hose**

Clean the froth dispenser after each use, otherwise they may become blocked with dried milk and hard to clean.

Rinsing does not replace cleaning in the dishwasher.

1. Select "Care".
2. Select "Rinse system".
3. Set a glass with water under the intake hose and select "OK".

The intake hose takes in the water and rinses it.

3.11 **Cleaning in the Dishwasher**

To clean the froth dispenser in the dishwasher, take the parts from the machine. Regular cleaning in the dishwasher is important, so that the froth dispenser does not clog over time, when milk is not removed during rinsing. To avoid dispenser clogging. Regular cleaning is recommended. All dispenser parts are D/W safe.

![Figure 3-9: CVA4070 Frother Spout Removal](image-url)
4.0 Function

4.1 Optical Interface

The appliance is equipped with an optical interface for diagnostic support and program updates (Figure 4-1, item 1). It can be located with the function “Find optical interface” of the Miele Diagnostic Support.

4.2 Control Electronic EPX
The control electronic is located in the door (Figure 1-2, Item 8). It is connected to the power electronic via a communication cable and controls the messages in the display.
4.3 Brew Unit Controls

4.3.1 Position of the Microswitches

The brew unit is controlled by 4 microswitches (Figure 4-2).

After the brew unit is activated, if one of the two microswitch controls (Figure 4-2, Item 3 & Item 4) is not switched within approx. 10 s, then fault code F73 is registered.
4.3.2 Brew Unit Present Control

If the brew unit is seated, the microswitch brew unit present switches (Figure 4-2, Item 2) will be activated.

4.3.3 Electronic Grinding Amount Compensation

The grinding amount compensation balances out different grinder settings and coffee types.

The grinding amount can be programmed for the various coffee types (coffee, espresso, cappuccino) in the customer programming mode. The available range is Step 0 to 17. This corresponds to a grinding time of 5.5 to 9.5 s (± 1.6 s grinding amount compensation). To prevent an overfill of the brew unit, the grinding time is limited to a maximum of 10 seconds.

Figure 4-3: CVA4070 Brew Unit Switch
During the brewing process, the cams of the brew unit move past the microswitch. (Figure 4-3, Item 2). The farther the cams move, the more ground coffee is in the brew unit. Five positions can be registered:

Table 4-1: CVA4070 Ground Coffee Setting

<table>
<thead>
<tr>
<th>GRIND AMOUNT SETTING</th>
<th>POSITION</th>
<th>SWITCHING PATTERN</th>
<th>COFFEE AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>1</td>
<td>OFF (REST)</td>
<td></td>
</tr>
<tr>
<td>Weak</td>
<td>2</td>
<td>ON</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>3</td>
<td>ON – OFF</td>
<td></td>
</tr>
<tr>
<td>Strong</td>
<td>4</td>
<td>ON – OFF – ON</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>5</td>
<td>ON – OFF – ON – OFF</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4-4: CVA4070 Brew Unit Volume

1, 2, 3 Areas of measurable volume 1, 2 and 3
The ground coffee amount can be measured in three volume areas (Figure 4-4), which correspond to the volume areas at the appliance (Figure 4-5).

If the ground coffee amount deviates from the set amount, then in the next grinding step the grinding time is extended by approx. 0.2 s, or shortened by approx. 0.2 s, as needed. Since the maximum time for compensation is ± 1.6 s, this step can be repeated up to 8 times.

4.3.4 Brew Unit Drive, Home Position

Figure 4-5: CVA4070 Ground Coffee Volume
If the brew unit is in the home position, the left cam of the double cam element activates the top microswitch; the bottom microswitch is not switched (Figure 4-6). The pawl is in the home position (Figure 4-7).

Figure 4-7: CVA4070 Front View.
4.3.5 Brew Unit Drive, Compressing Position (Brew Position)

The drive moves until the second cam of the double cam element switches the bottom microswitch, and the top microswitch is no longer switched (Figure 4-8). The pawl presses down on the spring (Figure 4-9) and closes the drain valve. The ground coffee is slightly compressed and brewed.
4.3.6 Brew Unit Drive, Drain Position

After the coffee is brewed, the drive moves back until the first cam of the double cam element activates the bottom microswitch and the top microswitch is switched (Figure 4-10). The tension of the spring is released, the drain valve is opened, and the residual water runs into the drip tray before the coffee puck is dropped.
4.4 Water Paths

4.4.1 General View

1. Waste container
2. Cappuccinatore
3. Water tank reed switch
4. Water tank
5. Pressure relief valve
6. Steam pump
7. Flow-thru heater steam
8. Flow meter
9. Coffee/hot water pump
10. Flow-thru heater coffee/hot water
11. Pressure relief valve
12. Hot water solenoid
13. Drain valve
14. Brew unit
15. Steam solenoid
16. Hot water dispenser
17. Coffee dispenser
18. Drip tray

Figure 4-12: CVA4070 General Water Path View
4.4.2 Water Path – Making Coffee

When “coffee”, or “espresso” is selected, the coffee/hot water pumps draws water from the water tank, via the flow meter. Then the pump coffee/hot water pumps the water through the flow-thru heater coffee/hot water. If there is excess pressure, the pressure relief valve opens. The hot water is pushed through the brew chamber of the brew unit, which is filled with coffee, and the coffee runs through the dispenser below the brew unit into the cup. The coffee puck drops into the waste container, and the residual water runs into the drip tray, via the drain valve.
4.4.3 Water Path – Hot Water

When “hot water” is selected, the coffee/hot water pump draws water from the water tank, via the flow meter. The water is then pumped through the flow-thru heater coffee/hot water. If there is excess pressure, the pressure relief valve opens. The hot water solenoid opens the hot water path, and the hot water runs through the hot water dispenser into the cup.
4.4.4 Water Path – Steam

When “cappuccino” or “milk froth” is selected, the steam pump draws water from the water tank. The water is then pumped through the flow-thru heater steam. If there is excess pressure, the pressure relief valve opens. The steam solenoid opens the path for the steam, and the steam issues from the cappuccinatore.

4.5 Appliance Status After a Power Disruption
After a power disruption, the appliance remains switched off (standby). The fault memory as well as all settings made by the customer remain intact.
5.0 Service

5.1 Appliance – Remove from Cabinet

1. Open the door of the unit.
2. Empty containers and the drip tray.

3. Remove the screws (Figure 5-1, Item 1).
4. Pull the appliance out of the cabinet.
5. Disconnect the unit from power.

Figure 5-1: CVA4070 Service View
5.2 Door Lamps – Remove

1. Open the door of the unit.

2. Remove the screws (Figure 5-2, Item 1).
3. Remove the cover.

Figure 5-2: CVA4070 Door Lamp Screw Removal
3. Unclip the lamps and remove them (Figure 5-3).

Figure 5-3: CVA4070 Door Lamp Removal
5.3 **Door – Remove**

1. Open the door of the unit.

2. Remove the screws on the right panel (Figure 5-4, Item1).
3. Remove the right panel.

**Figure 5-4**: CVA4070 Door Screw Removal
Figure 5-5: CVA4070 Door Retaining Screw Removal

4. Unplug the connecting plug at the power electronic.
5. Remove the door retaining screws:
   - Disconnect the plug to the power electronic (Figure 5-5, Item 1).
   - Release the teflon hoses from their connector and pull out (Figure 5-5, Item 2).

**Note**
The teflon hoses are colored differently, to prevent crossing the lines during reassembling.

- Remove the screws of the door hinges (Figure 5-5, Item 2).
- Remove the door.

**Warning!**
To prevent malfunctions in the water system (for example clogging of the valves), never use grease, oil or other lubricants when assembling the water supplying components.
5.4 **Hot Water Dispenser – Remove**

1. Open the door of the unit.

![Diagram of Hot Water Dispenser](image)

1 Retaining screws of cover

**Figure 5-6: CVA4070 Hot Water Removal**

2. Remove the screws of the cover (Figure 5-6, Item1).
3. Remove the cover.
4. Release the teflon hose from its connection and pull it out (Figure 5-7).
5. Remove the screws of the bracket (Figure 5-7, Item1).
6. Remove the bracket (Figure 5-7).
7. Pull the hot water dispenser downward and remove it.

**Warning!**
To prevent malfunctions in the water system (for example clogging of the valves), never use grease, oil or other lubricants when assembling the water supplying components.
5.5 **Cappuccinatore – Remove**

1. Open the door of the unit.

**Figure 5-8: CVA4070 Cappuccinatore Screw Removal**

2. Remove the screws of the cover (Figure 5-8).
3. Remove the cover.
4. Release the teflon hose from its connection and pull it out (020 Fig. 6).
5. Remove the screws of the bracket (Figure 5-9, Item1).
6. Remove the bracket.
7. Pull the Cappuccinatore downward and remove it.

**Warning!**
To prevent malfunctions in the water system (for example clogging of the valves), never use grease, oil or other lubricants when assembling the water supplying components.
5.6 Brew Unit Drive – Remove
1. Appliance – Remove from cabinet”, (Figure 5-1).
2. Remove the retaining screws of the appliance lid.
3. Take the lid off.

![Diagram of Brew Unit Drive]

4. Remove the retaining screws of the service door (Figure 10, Item 1).
5. Take the cable connecting the control and the power electronic out of its guide.
6. Open the service door.
7. Disconnect the plug of the brew unit drive (Figure 5-11, Item 2).
8. Disconnect the plug (ST4) from the power electronic.
9. Open the door of the unit.
10. Take the containers out of the appliance.
11. Release the brew unit and take it out of the appliance (Figure 5-12).
12. Remove the brew unit drive retaining screws (Figure 5-13, Item 1).
13. Take the brew unit drive out toward the rear.

**Note**
When installing the brew unit drive, make sure that the pawl is set in the home position, refer to Figure 6-1.
5.7 Microswitch Grinding Amount Compensation – Remove

1. Appliance – Remove from cabinet”, (figure 5-1).
2. Remove the retaining screws of the appliance cover.
3. Remove the cover.

4. Remove the service door screws (Figure 5-14, Item 1).
5. Take the cable connecting the control and the power electronic out of its guide.
6. Open the service door.
7. Disconnect the plug from the microswitch (Figure 5-15, Item 1).  
8. Unclip the microswitch and take it out.
5.8  **Grinder – Remove**

1. Appliance – Remove from cabinet (Figure 5.1).
2. Remove the retaining screws of the appliance lid.
3. Remove the lid.

---

4. Remove the service door retaining screws (Figure 5-16).
5. Take the cable connecting the control and the power electronic out of its guide.
6. Open the service door.
Figure 5-17: CVA4070 Grinder Unit Removal

7. Take the bean container out.
8. Remove the retaining screws of the base (Figure 5-18, Item1).
9. Pull the handle off the adjustment lever (Figure 5-19).
10. Take the base out.
11. Slide the adjustment lever aside (Figure 5-20).
12. Remove the grinder retaining screws (Figure 5-20, Item1).
13. Take the grinder out.
14. Pull the connecting plug off the grinder.
5.9 Hot water Solenoid – Remove

1. Remove the screws of the support plate (Figure 5-20, Item 1).
2. Open the support plate.

Figure 5-20: CVA4070 Grinder Retaining Screws Removal
Figure 5-21: CVA4070 Solenoid Removal

1 Steam solenoid
2 Hot water solenoid
Figure 5-22: CVA4070 Solenoid Removal

3. Pull out the safety springs at the connection of the hot water solenoid (Figure 5-22).
4. Take the solenoid out.
5. Pull the connecting plug off the solenoid.

**Warning!**
To prevent malfunctions in the water system (for example clogging of the valves), never use grease, oil or other lubricants when assembling the water supplying components.
5.10 Steam Solenoid – Remove

1 Retaining screws of support plate

Figure 5-23: CVA4070 Solenoid Screw Removal

1. Remove the screws of the support plate (Figure 5-23, Item1).
2. Open the support plate.
Figure 5-24: CVA4070 Solenoid Removal

1 Steam solenoid
2 Hot water solenoid
3. Pull out the safety springs at the connection of the steam solenoid (Figure 5-25).
4. Remove the solenoid.
5. Pull the connecting plug off the solenoid.

**Warning!**
To prevent malfunctions in the water system (for example clogging of the valves), never use grease, oil or other lubricants when assembling the water supplying components.
5.11 Flow-thru Heater Coffee/Hot Water – Remove
1. Appliance – Remove from cabinet*, (Figure 5-1).
2. Remove the cover retaining screws.
3. Remove the cover.

Figure 5-26: CVA4070 Rear Screw Removal

4. Remove the service door screws (Figure 5-26, Item1).
5. Take the cable connecting the control and the power electronic out of its guide.
6. Open the service door.
7. Remove the rear wall retaining screws at the bottom.
8. Take off the lower rear wall.

Figure 5-27: CVA4070 Flow-thru Heater

Figure 5-28: CVA4070 Flow-thru Heater Screw Removal
9. Pull out the spring clips at the water connection (Figure 5-28).
10. Remove the mounting platform, shelf screws of the flow-thru heater (Figure 5-28, Item 1).
11. Remove the flow-thru heater.

12. Remove the temperature sensor, temperature limiter and temperature fuse from the flow-thru heater (Figure 5-29, Items 1 – 3).
13. Pull the connectors off the flow-thru heater.

Warning!
To prevent malfunctions in the water system (for example clogging of the valves), never use grease, oil or other lubricants when assembling the water supplying components.
5.12 **Flow-thru Heater Steam – Remove**

1. Appliance – Remove from cabinet*, (Figure 5-1).
2. Remove the retaining screws of the appliance cover.
3. Remove the cover.

![Figure 5-30: CVA4070 Rear Service Door Retaining Screw Removal](image)

4. Remove the service door retaining screws (Figure 30, Item1).
5. Take the cable connecting the control and the power electronic out of its guide.
6. Open the service door.

**Note:**
Both steam and hot water have center screw anchoring it to platform.
1 Flow-thru heater steam
2 Flow-thru heater coffee/hot water

**Figure 5-31:** CVA4070 Flow-thru Heater Steam

1 Retaining screws flow-thru heater

**Figure 5-32:** CVA4070 Flow-thru Heater Steam
7. Pull out the spring clips at the connection (Figure 32).
8. Remove the flow-thru heater mounting screws (Figure 32, Item 1).
10. Remove the flow-thru heater.

1 Temperature limiter
2 Temperature sensor
3 Temperature fuse

Figure 5-33: CVA4070 Temperature

10. Remove the temperature limiter, temperature sensor and temperature fuse (Figure 5-33, Items 1 – 3).
11. Pull the connectors off the flow-thru heater.

Warning!
To prevent malfunctions in the water system (for example clogging of the valves), never use grease, oil or other lubricants when assembling the water supplying components.
5.13 Coffee/Hot Water Pump – Remove

1. Appliance – Remove from cabinet", (Figure 5-1).
2. Remove the cover retaining screws.
3. Remove the cover.

Figure 5-34: CVA4070 Rear Service Door Screw Removal

4. Remove the service door retaining screws (Figure 5-34, Item 1).
5. Take the cable connecting the control and the power electronic out of its guide.
6. Open the service door.
Figure 5-35: CVA4070 With Service Door Open

7. Remove the rear wall retaining screws at the bottom.
8. Remove the lower wall.
Figure 5-36: CVA4070 Coffee/Hot Water Pump
9. Release the teflon hose from the safety valve and disconnect it (Figure 5-37, Item 1).
10. Pull the connectors off the pump.
11. Remove the pump retaining screws (Figure 5-37, Item 2).
12. Remove the pump.
13. Pull the silicone hose off the pump (Figure 5-37).
14. Unclip the temperature limiter and remove it (Figure 5-37, Item 3).
15. Unscrew the safety valve (Figure 5-37, Item 1).
16. Take the retaining brackets off the pump.

**Warning!**

To prevent malfunctions in the water system (for example clogging of the valves), never use grease, oil or other lubricants when assembling the water supplying components.
5.14 Steam Pump – Remove

1. Appliance – Remove from cabinet", (Figure 5-1).
2. Remove the cover retaining screws.
3. Remove the cover.

4. Remove the service door retaining screws (Figure 5-38, Item 1).
5. Take the cable connecting the control and the power electronic out of its guide.
6. Open the service door.

Figure 5-38: CVA4070 Service Door Steam Pump Removal
7. Remove the rear wall retaining screws at the bottom.
8. Remove the lower wall.

Figure 5-39: CVA4070 Steam Pump Removal
Figure 5-40: CVA4070 Coffee/Hot Water Pump Removal

1 Coffee/hot water pump
2 Steam pump
9. Pull the connectors off the pump.
10. Remove the pump bracket retaining screws (Figure 5-41, Item 1).
11. Remove the pump.
12. Remove the retaining clip from the 90° connector and disconnect the teflon hose (Figure 5-41).
13. Pull the silicone hose off the pump (Figure 5-41).
14. Unclip the temperature limiter and remove it (Figure 5-41, Item 2).
15. Take the retaining brackets off the pump.

**Warning!**
To prevent malfunctions in the water system (for example clogging of the valves), never use grease, oil or other lubricants when assembling the water supplying components.
5.15 Flow Meter – Remove
1. Appliance – Remove from cabinet”, (Figure 5-1).
2. Remove the cover retaining screws.
3. Remove the cover.

4. Remove the service door retaining screws (Figure 5-42).
5. Take the cable connecting the control and the power electronic out of its guide.
6. Open the service door.

Figure 5-42: CVA4070 Flow Meter Screws Removal
7. Remove the rear wall retaining screws at the bottom.
8. Remove the lower wall.
Figure 5-44: CVA4070 Flow Meter Removal
Figure 5-45: CVA4070 Flow Meter Safety Ring Removal

9. Pull the silicone hoses off the flow meter (Figure 5-45).
10. Pull the connector off the flow meter.
11. Pull the flow meter upward out of the safety ring and remove it (Figure 5-45, Item 2).

Warning!
To prevent malfunctions in the water system (for example clogging of the valves), never use grease, oil or other lubricants when assembling the water supplying components.
5.15 **Power Electronic EPL – Remove**

1. Appliance – Remove from cabinet*, (Figure 5-1).
2. Remove the rear wall retaining screws at the top.
3. Remove the top rear wall.

---

1 Power electronic retaining screws

**Figure 5-46: CVA4070 Power Electronic Retaining Screws Removal**

4. Remove the screws of the power electronic (Figure 5-46, Item 1).
5. Remove the power electronic.
6. Pull the connectors off the power electronic.
Table 5-1: CVA4070 Connecting Plugs and Pin Allocations (Cont. on Table 5-2)
<table>
<thead>
<tr>
<th>Plug #</th>
<th>Pins</th>
<th>Usage / Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST4</td>
<td>1</td>
<td>Microswitch brew unit 1 compensation</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Microswitch brew unit 2 clockwise turn</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Microswitch brew unit 3 counter-clockwise turn</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Microswitch brew unit 4 present</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Microswitch brew unit XXXXMasse</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Reed contact water tank fill</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Reed contact water tank in units with hard plumbing</td>
</tr>
<tr>
<td>ST5</td>
<td>5</td>
<td>Reed contact door closed</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Brew unit motor</td>
</tr>
<tr>
<td>ST7</td>
<td>6</td>
<td>Connection to control electronic</td>
</tr>
</tbody>
</table>

Table 5-2: CVA4070 Connecting Plugs and Pin Allocations (Cont. from Table 5-1) (Cont. on Table 5-3)
<table>
<thead>
<tr>
<th>ST8</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ST9</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED interior lamp</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature sensor NTC coffee/hot water</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature sensor NTC steam</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow meter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ST10</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ST11</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector to main power supply</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection to Plug 12</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ST12</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow-thru heater steam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vacant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow-thru heater coffee/hot water</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vacant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection to plug 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interference suppressor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump coffee/hot water</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steam pump</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vacant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grinder motor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ST13</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector to warming drawer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 5-3**: CVA4070 Connecting Plugs and Pin Allocations (Cont. from Table 5-2)
6.0 Fault Diagnosis

6.1 Programming Mode

Initial requirements
1. Switch the appliance off.

Accessing

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access has to be completed within 10 seconds.</td>
</tr>
</tbody>
</table>

2. Touch pad Clear and hold it.
3. Touch pad On/Off once.
5. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode Programming.

Options
1. Touch the pad next to the desired position (refer Table).
2. Touch the pad next to the desired setting (refer Table).

Back (without saving): Touch pad Clear.

Save and quit
1. Save and back: Touch pad next to OK.
2. To end: Touch pad On/Off.

Quit (without saving)
1. Touch pad On/Off.
## Technical Information

### Setting Function Factory

<table>
<thead>
<tr>
<th>Position</th>
<th>Setting</th>
<th>Function</th>
<th>Factory Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reset</td>
<td>No</td>
<td>Back, without Reset</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>yes</td>
<td>All settings made by the customer (except language) are deleted. All own user profiles are deleted. The fault code memory remains.</td>
<td>-</td>
</tr>
</tbody>
</table>

### Settings Language

<table>
<thead>
<tr>
<th>Language</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>cestina</td>
<td>The language remains, even when the program is reset to factory setting. If the language setting is wrong, use the bilder\t4640s02.tif icon as a guide to the language menu.</td>
</tr>
<tr>
<td>dansk</td>
<td>-</td>
</tr>
<tr>
<td>deutsch</td>
<td>-</td>
</tr>
<tr>
<td>english</td>
<td>-</td>
</tr>
<tr>
<td>espanol</td>
<td>-</td>
</tr>
<tr>
<td>francais</td>
<td>-</td>
</tr>
<tr>
<td>italiano</td>
<td>-</td>
</tr>
<tr>
<td>magyar</td>
<td>-</td>
</tr>
<tr>
<td>nederland</td>
<td>-</td>
</tr>
<tr>
<td>norsk</td>
<td>-</td>
</tr>
<tr>
<td>polski</td>
<td>-</td>
</tr>
<tr>
<td>português</td>
<td>-</td>
</tr>
<tr>
<td>suomi</td>
<td>-</td>
</tr>
<tr>
<td>svenska</td>
<td>-</td>
</tr>
<tr>
<td>türkce</td>
<td>-</td>
</tr>
<tr>
<td>greek</td>
<td>-</td>
</tr>
<tr>
<td>russian</td>
<td>-</td>
</tr>
</tbody>
</table>

### Settings Time

<table>
<thead>
<tr>
<th>Setting</th>
<th>Function</th>
<th>Factory Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display on</td>
<td>The Time display stays switched on</td>
<td>On</td>
</tr>
<tr>
<td>Display on for 60 seconds</td>
<td>When the unit is switched off, the time display dims after 60 seconds.</td>
<td></td>
</tr>
<tr>
<td>Time Format 12 h</td>
<td>The time is shown in the 12 hour format.</td>
<td>24 h</td>
</tr>
<tr>
<td>Time Format 24 h</td>
<td>The time is shown in the 24 hour format.</td>
<td>-</td>
</tr>
<tr>
<td>Setting e.g. 8:34</td>
<td>Use the pads +/- to set the current time.</td>
<td>-</td>
</tr>
</tbody>
</table>

**Table 6-1:** CVA4070 Program Mode (Cont. on Table 6-2)
### Technical Information

**CVA4070 / CVA4075 Coffee Systems**

---

<table>
<thead>
<tr>
<th>Position</th>
<th>Setting</th>
<th>Function</th>
<th>Factory Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Start at</td>
<td>Use the pads +/- to set the desired time.</td>
<td></td>
</tr>
<tr>
<td>Settings</td>
<td>e. g. 7:30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timer</td>
<td>Switch off after</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. g. 0:15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Switch off after</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. g. 9:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timer</td>
<td>Switch on at</td>
<td>The unit is switched on at the specified time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. g. 7:30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Switch off at</td>
<td>The unit is switched off at the specified time.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. g. 9:00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Settings</th>
<th>Grinding Amount</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Espresso</td>
<td>Step 1 – 17</td>
<td>Grinding Time</td>
<td>Step 9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.9 s – 10 s</td>
<td></td>
</tr>
<tr>
<td>Coffee</td>
<td>Step 1 – 17</td>
<td></td>
<td>Step 9</td>
</tr>
<tr>
<td>Cappuccino</td>
<td>Step 1 – 17</td>
<td></td>
<td>Step 9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Settings</th>
<th>Pre-Brewing</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Long</td>
<td>Pre-brew 3.0 s</td>
<td></td>
<td>Without</td>
</tr>
<tr>
<td>Normal</td>
<td>Pre-brew 1.5 s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without</td>
<td>No pre-brewing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Settings</th>
<th>Temperature</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Espresso</td>
<td>Minimum</td>
<td>= 205 °F (96 °C) (in the flow-thru heater)</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>= 208 °F (98 °C) (in the flow-thru heater)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>= 212 °F (100 °C) (in the flow-thru heater)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>= 215 °F (102 °C) (in the flow-thru heater)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maximum</td>
<td>= 219 °F (104 °C) (in the flow-thru heater)</td>
<td></td>
</tr>
</tbody>
</table>

**Table 6-2:** CVA4070 Program Mode (Cont. from Table 6-1; Cont. on Table 6-3)
### Technical Information

#### CVA4070 / CVA4075 Coffee Systems

<table>
<thead>
<tr>
<th>Position</th>
<th>Settings</th>
<th>Function</th>
<th>Factory Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settings</td>
<td>Temperature</td>
<td>Coffee</td>
<td>Minimum</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maximum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cappuccino</td>
<td>Minimum</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maximum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hot Water</td>
<td>Minimum</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maximum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Automatic Rinse</td>
<td>On</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Off</td>
</tr>
</tbody>
</table>

**Table 6-3:** CVA4070 Program Mode (Cont. from Table 6-2; Cont. on Table 6-4)
<table>
<thead>
<tr>
<th>Position</th>
<th>Settings</th>
<th>Function</th>
<th>Factory Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steam System</td>
<td>On</td>
<td>The steam system is switched on.</td>
<td>On</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>The steam system is switched off.</td>
<td></td>
</tr>
<tr>
<td>Lighting</td>
<td>Automatic On</td>
<td>The lamps of the door and the interior are switched on.</td>
<td>On</td>
</tr>
<tr>
<td></td>
<td>Automatic Off</td>
<td>The lamps of the door and the interior are switched off.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Top step 1 – 17</td>
<td>The lamps of the appliance interior can be dimmed.</td>
<td>Step 17</td>
</tr>
<tr>
<td></td>
<td>Bottom step 1 – 17</td>
<td>The lamps of the appliance door can be dimmed.</td>
<td>Step 17</td>
</tr>
<tr>
<td>Coffee Total</td>
<td></td>
<td>The number of coffees, espressos and capuccinos dispensed is indicated.</td>
<td>-</td>
</tr>
<tr>
<td>System Lock</td>
<td>Accept</td>
<td>System lock is switched on. The appliance can be safeguarded against accidental switch-on.</td>
<td>Do Not Accept</td>
</tr>
<tr>
<td></td>
<td>Do Not Accept</td>
<td>System lock is switched off.</td>
<td></td>
</tr>
<tr>
<td>Water Hardness</td>
<td>Soft 1</td>
<td>refer to 021 Table 4</td>
<td>Very Hard 4</td>
</tr>
<tr>
<td></td>
<td>Medium 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hard 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Very Hard 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 6-4:** CVA4070 Program Mode (Cont. from Table 6-3; Cont. on Table 6-5)
### Technical Information

<table>
<thead>
<tr>
<th>Position</th>
<th>Settings</th>
<th>Function</th>
<th>Factory Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select</td>
<td>Standard</td>
<td>The main menu contains a standard user profile: The settings for the grinding amount, temperature, pre-brewing and portion size correspond to the factory setting.</td>
<td>Standard</td>
</tr>
<tr>
<td>Create</td>
<td>e. g. name</td>
<td>Create a new user profile. Up to 7 user profiles are possible.</td>
<td>-</td>
</tr>
<tr>
<td>Change name</td>
<td>-</td>
<td>Change the name of a user profile.</td>
<td>-</td>
</tr>
<tr>
<td>Delete</td>
<td>-</td>
<td>Delete a user profile.</td>
<td>-</td>
</tr>
<tr>
<td>Change-over</td>
<td>never</td>
<td>The display of the user profile in the main menu never changes over to Standard.</td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td>At switch-on</td>
<td>The display of the user profile in the main menu changes over to Standard as the machine is switched on.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>After beverage is dispensed</td>
<td>The display of the user profile in the main menu changes over to Standard after each beverage service.</td>
<td></td>
</tr>
</tbody>
</table>

*Table 6-5: CVA4070 Program Mode (Cont. from Table 6-4; Cont. on Table 6-6)*
<table>
<thead>
<tr>
<th>Position</th>
<th>Settings</th>
<th>Function</th>
<th>Factory Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Settings</strong></td>
<td>Display</td>
<td><strong>Contrast</strong></td>
<td>Step 8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Step 1 – 16 – Low to High</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brightness</td>
<td>Step 1 – 16 – Dim to Bright</td>
<td>Step 14</td>
</tr>
<tr>
<td><strong>Settings</strong></td>
<td>Signal Tones</td>
<td><strong>Volume</strong></td>
<td>Step 18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Step 1 - 18 – Low to High</td>
<td></td>
</tr>
<tr>
<td><strong>Settings</strong></td>
<td></td>
<td><strong>Touch Pad Tones</strong></td>
<td>On</td>
</tr>
<tr>
<td></td>
<td></td>
<td>On</td>
<td></td>
</tr>
<tr>
<td><strong>Settings</strong></td>
<td></td>
<td><strong>Touch Pad Tones</strong></td>
<td>Off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td><strong>Settings</strong></td>
<td>Factory Settings</td>
<td><strong>All settings</strong></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td><strong>Settings</strong></td>
<td>User profiles</td>
<td><strong>All settings</strong></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>Customer</strong></td>
<td>Service</td>
<td>Restart</td>
<td>-</td>
</tr>
<tr>
<td><strong>Service</strong></td>
<td></td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Table 6-6: CVA4070 Program Mode (Cont. from Table 6-5; Cont. on Table 6-7)
## Technical Information

<table>
<thead>
<tr>
<th>Position</th>
<th>Settings</th>
<th>Function</th>
<th>Factory Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Service</td>
<td>Available</td>
<td>The appliance is hooked-up to plumbing.</td>
<td>Not Available</td>
</tr>
<tr>
<td>Appliance Variant</td>
<td>Not Available</td>
<td>The appliance cannot be hooked-up to plumbing.</td>
<td></td>
</tr>
<tr>
<td>Hard plumbing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Back, without lifting the descale lock.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>Release the descale lock. *1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Back, without lifting the cleaning lock.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>Release the cleaning lock. *2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6-7: CVA4070 Program Mode (Cont. from Table 6-6)

*1 Attention! After service work is completed, descale the appliance.

*2 Attention! After service work is completed, clean the appliance.
6.1.1 Reset

Initial requirements
1. Switch the appliance off.

Accessing

Note
Complete the access within 10 seconds.

1. Touch pad Clear and hold.
2. Touch pad On/Off once.
4. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode Programming.

Options
1. Touch the pad next to Reset.
   
   No: Back, without Reset.

   Yes: All settings made by the customer (except language) are deleted. All own user profiles are deleted. The fault code memory remains.

Save and quit
1. Touch the On/Off pad.
Technical Information

6.1.2 Language – Set

Initial requirements
Switch the appliance off.

Accessing

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the access within 10 seconds.</td>
</tr>
</tbody>
</table>

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode Programming.

Options
1. Touch pad next to **Language**.
2. Touch the pad next to the desired language.
3. **Back (without saving)**: Touch pad **Clear**.

Available languages: cestina, dansk, deutsch, english, espanol, francais, italiano, magyar, nederlands, norsk, polski, portuguës, suomi, svenska, türkce, greek, russian.

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>The language remains even if the factory setting is restored.</td>
</tr>
<tr>
<td>If the language is not set correctly, use the bilder\4640s02.tif icon as a guide to get to the setting for language.</td>
</tr>
</tbody>
</table>

Save and quit
1. **Save and back**: Touch pad next to **OK**.
2. **End**: Touch pad **On/Off**.

Quit (without saving)
1. Touch pad **On/Off**.
6.1.3 Time – Set

Initial requirements
1. Switch the appliance off.

Accessing

Note
Complete the access within 10 seconds.

1. Touch pad Clear and hold.
2. Touch pad On/Off once.
4. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode Programming.

Options
1. Touch pad next to Time.
2. Touch pad next to the desired setting.

Indication:
on: The panel shows the time of day.
on for 60 seconds: When the appliance is switched off, the display dims after 60 seconds.

Factory setting: on.

Time format:
12 hour: The time is shown in the 12 hour format.
24 hour: The time is shown in the 24 hour format.

Factory setting: 24 hours.
Set: Enter the current time using the pads + or –.
Save and quit
1. Save and back: Touch pad next to OK.
2. End: Touch pad On/Off.

Quit (without saving)
1. Touch pad On/Off.
6.1.4 Timer – Set / Activate

Initial requirements
1. Switch the appliance off.

Accessing

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the access within 10 seconds.</td>
</tr>
</tbody>
</table>

1. Touch pad Clear and hold.
2. Touch pad On/Off once.
4. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode Programming.

Options
1. Touch pad next to Clock Timer.
2. Touch pad next to the desired activation.

To Set
- switch on at: If the timer is activated, the appliance will be switched on at the specified time. Enter the desired time via the touch pads + or –.
- switch off after: The appliance will be switched off after the specified time has elapsed. Enter the desired time via the touch pads + or –. Factory setting: 2:00 hours.
- switch off at: If the timer is activated, the appliance will be switched off at the specified time. Enter the desired time via the touch pads + or –.

To Activate
- on: Switches the feature on at a given time.
- off: Switches the feature off at a given time.

Save and quit
1. Save and back: Touch pad next to OK.
2. End: Touch pad On/Off.

Quit (without saving)
1. Touch pad On/Off.
4.1.5 Grinding Amount – Set

Initial requirements
1. Switch the appliance off.

Accessing

Note
Complete the access within 10 seconds.

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode

Programming.

Options
1. Touch pad next to **Grinding amount**.
2. Touch pad next to the desired type of coffee.
3. **Back (without saving)**: Touch pad **Clear**.

**Espresso**: Set the desired grinding amount using the touch pads less or more.
Range: Step 1 – 17 representing a grinding time of 3.9 s – 10 s.
Factory setting: Step 9.

**Coffee**: Set the desired grinding amount using the touch pads less or more.
Range: Step 1 – 17 representing a grinding time of 3.9 s – 10 s.
Factory setting: Step 9.

**Cappuccino**: Set the desired grinding amount using the touch pads less or more.
Range: Step 1 – 17 representing a grinding time of 3.9 s – 10 s.
Factory setting: Step 9.

Save and quit
1. Save and back: Touch pad next to OK.
2. End: Touch pad On/Off.

Quit (without saving)
1. Touch pad On/Off.
6.1.6 Pre-brewing – Set

Initial requirements
Switch the appliance off.

Accessing

Note
Complete the access within 10 seconds.

1. Touch pad Clear and hold.
2. Touch pad On/Off once.
4. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode

Programming.

Options
1. Touch pad next to Pre-brewing.
2. Touch pad next to the desired setting.

   Long: 3.0 s pre-brewing.

   Normal: 1.5 s pre-brewing.

   Without: no pre-brewing.

   Factory setting: without.

Save and quit
1. Save and back: Touch pad next to OK.
2. End: Touch pad On/Off.

Quit (without saving)
1. Touch pad On/Off.
6.1.7 Temperatures for Coffee and Hot Water – Set

Initial requirements

1. Switch the appliance off.

Accessing

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the access within 10 seconds.</td>
</tr>
</tbody>
</table>

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator

1. The display shows the positions of the programming mode **Programming**.

Options

1. Touch pad next to **Temperature**.
2. Touch pad next to the desired setting.
3. Back (without saving): Touch pad **Clear**.

**Espresso**:
- **minimum**: Represents 96 °C (in the flow-thru heater).
- **low**: Represents 98 °C (in the flow-thru heater).
- **medium**: Represents 100 °C (in the flow-thru heater).
- **high**: Represents 102 °C (in the flow-thru heater).
- **maximum**: Represents 104 °C (in the flow-thru heater).

**Factory setting**: medium.

**Coffee**:
- **minimum**: Represents 96 °C (in the flow-thru heater).
- **low**: Represents 98 °C (in the flow-thru heater).
- **medium**: Represents 100 °C (in the flow-thru heater).
- **high**: Represents 102 °C (in the flow-thru heater).
- **maximum**: Represents 104 °C (in the flow-thru heater).

**Factory setting**: medium.

**Cappuccino**:
- **minimum**: Represents 96 °C (in the flow-thru heater).
- **low**: Represents 98 °C (in the flow-thru heater).
- **medium**: Represents 100 °C (in the flow-thru heater).
- **high**: Represents 102 °C (in the flow-thru heater).
- **maximum**: Represents 104 °C (in the flow-thru heater).

**Factory setting**: medium.
Technical Information

Hot water:
minimum: Represents 96 °C (in the flow-thru heater).
low: Represents 98 °C (in the flow-thru heater).
medium: Represents 100 °C (in the flow-thru heater).
high: Represents 102 °C (in the flow-thru heater).
maximum: Represents 104 °C (in the flow-thru heater).
Factory setting: medium.

Save and quit
1. Save and back: Touch pad next to OK.
2. End: Touch pad On/Off.

Quit (without saving)
1. Touch pad On/Off.
6.1.8 Automatic Rinse – On / Off

Initial requirements
1. Switch the appliance off.

Accessing

Note
Complete the access within 10 seconds.

1. Touch pad Clear and hold.
2. Touch pad On/Off once.
4. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode Programming.

Options
1. Touch pad next to Rinse automatic.
2. Touch pad next to the desired setting.

   on: The appliance rinses when it is switched on, and after dispensing a beverage shortly before it switches off.

   off: Automatic rinse is switched off.

Factory setting: on.

Save and quit
1. Save and back: Touch pad next to OK.
2. End: Touch pad On/Off.

Quit (without saving)
1. Touch pad On/Off.
6.1.9 Steam System – On / Off

Initial requirements
1. Switch the appliance off.

Accessing

Note
Complete the access within 10 seconds.

2. Touch pad Clear and hold.
3. Touch pad On/Off once.
5. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode

Programming.

Options
1. Touch pad next to Steam system.
2. Touch pad next to the desired setting.

on: The steam system is switched on.

off: The steam system is switched off.

Factory setting: on.

Save and quit
1. Save and back: Touch pad next to OK.
2. End: Touch pad On/Off.

Quit (without saving)
1. Touch pad On/Off.
6.1.10 Door and Interior Lighting – Set

Initial requirements
Switch the appliance off.

Accessing

Note
Complete the access within 10 seconds.

1. Touch pad Clear and hold.
2. Touch pad On/Off once.
4. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode

Programming

Options
1. Touch pad next to Lighting.
2. Touch pad next to the desired setting.

Automatic
on: Door and interior lighting are switched on.
off: Door and interior lighting are switched off.
Factory setting: on.

Dim

top: The interior lighting can be set using the touch pads darker or brighter.
Range: Step 1 – 17.
Factory setting: Step 17.
bottom: The door lighting can be set using the touch pads darker or brighter.
Range: Step 1 – 17.
Factory setting: Step 17.

Save and quit
1. Save and back: Touch pad next to OK.
2. End: Touch pad On/Off.

Quit (without saving)
1. Touch pad On/Off.
6.1.11 Coffee Count – Indicate

Initial requirements
1. Switch the appliance off.

Accessing

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the access within 10 seconds.</td>
</tr>
</tbody>
</table>

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode

Programming.

Options
1. Touch pad next to **coffee total**.
2. The display shows the total number of coffee, espresso and cappuccino dispensed.

Save and quit
1. **Save and back**: Touch pad next to **OK**.
2. **End**: Touch pad **On/Off**.

Quit (without saving)
1. Touch pad **On/Off**.
6.1.12 System Lock – Set

Initial requirements
1. Switch the appliance off.

Accessing

Note
Complete the access within 10 seconds.

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode **Programming**.

Options
1. Touch pad next to **System lock**.
2. Touch pad next to the desired setting.
3. Back (without saving): Touch pad **Clear**.

accept: The system lock is switched on. The appliance can be safeguarded against accidental operation.

do not accept: The system lock is switched off.

Factory setting: do not accept.

Save and quit
1. **Save and back**: Touch pad next to **OK**.
2. **End**: Touch pad **On/Off**.

Quit (without saving)
1. Touch pad **On/Off**.
6.1.13 Water Hardness – Set

Initial requirements
1. Switch the appliance off.

Accessing

Note
Complete the access within 10 seconds.

1. Touch pad Clear and hold.
2. Touch pad On/Off once.
4. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode.

Programming.

Options
1. Touch pad next to Water hardness.
2. Touch pad next to the desired setting.

<table>
<thead>
<tr>
<th>Water Hardness Settings</th>
<th>gr/gal</th>
<th>Value (approx.) until message &quot;50 servings until descale&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Flow coffee/hot water (pulses)</td>
</tr>
<tr>
<td>Soft</td>
<td>0 - 4</td>
<td>150.000</td>
</tr>
<tr>
<td>Medium</td>
<td>5 - 9</td>
<td>144.000</td>
</tr>
<tr>
<td>Hard</td>
<td>10 - 18</td>
<td>108.000</td>
</tr>
<tr>
<td>Very Hard</td>
<td>&gt; 18</td>
<td>72.000</td>
</tr>
</tbody>
</table>

Table 6-7: CVA4070 Water Hardness Settings

Save and quit
1. Save and back: Touch pad next to OK.
2. End: Touch pad On/Off.

Quit (without saving)
1. Touch pad On/Off.
6.1.14  User Profile – Set

Initial requirements
Switch the appliance off.

Accessing

Note
Complete the access within 10 seconds.

1. Touch pad Clear and hold.
2. Touch pad On/Off once.
4. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode Programming.

Options
1. Touch pad next to User profile.
2. Touch pad next to the desired setting or activation.

select: The main menu shows the selected user profile. In the menu item “settings”, the grinding amount, temperature, pre-brewing and portion size can be set for the respective user profile.

Factory setting: Standard. The settings for the grinding amount, temperature, pre-brewing and portion size are as in the factory setting.

create: Create a new user profile (e. g. name). A maximum of 7 user profiles are possible.

change name: Change the name of a user profile.

delete: Delete a user profile.

Change-over:

never: The main menu indicates the user profile and never changes over to standard.

at switch-on: As the appliance is switched on, the main menu changes to a standard user profile.
Technical Information

after dispensing: After each time a beverage is dispensed, the main menu changes to a standard user profile.

Factory setting: never.

Save and quit
Save and back: Touch pad next to OK.
End: Touch pad On/Off.

Quit (without saving)
Touch pad On/Off.
6.1.15 Display – Set

Initial requirements
Switch the appliance off.

Accessing

Note
Complete the access within 10 seconds.

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode **Programming**.

Options
1. Touch pad next to Display.
2. Touch pad next to the desired setting.
3. **Back (without saving)**: Touch pad **Clear**.

Contrast: Set the contrast using the touch pads lower or higher.
Range: Step 1 – 16.
Factory setting: Step 8

Brightness: Set the brightness using the touch pads darker or brighter.
Range: Step 1 – 16.
Factory setting: Step 14.

Save and quit
1. **Save and back**: Touch pad next to **OK**.
2. **End**: Touch pad **On/Off**.

Quit (without saving)
1. Touch pad **On/Off**.
Technical Information

6.1.16 Signal Tones – Set

Initial requirements
1. Switch the appliance off.

Accessing

| Note | Complete the access within 10 seconds. |

1. Touch pad Clear and hold.
2. Touch pad On/Off once.
4. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode
Programming.

Options
1. Touch pad next to Signal tones.
2. Touch pad next to the desired setting.

Volume: Set the volume higher or lower using the touch pads.
Range: Step 1 – 18.
Factory setting: Step 18.

Touch pad tones
on: Touch pads emit a tone when pressed.
off: Touch pads do not emit a tone when pressed.

Factory setting: on.

Save and quit
Save and back: Touch pad next to OK.
End: Touch pad On/Off.

Quit (without saving)
Touch pad On/Off.
6.1.17 Factory Setting – Restore

Initial requirements
Switch the appliance off.

Accessing

**Note**
Complete the access within 10 seconds.

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode Programming.

Options
1. Touch pad next to **Factory setting**.
2. Touch pad next to the desired action.
3. **Back**: Touch pad **Clear**.

All Settings
**no**: Back, without restoring the factory setting.
**yes**: All settings made by the customer (except the language) are reset to the factory setting.

User profiles
**no**: Back, without deleting the user profiles.
**yes**: All user profiles are deleted.

Save and quit
Touch pad **On/Off**.
6.1.18  Restart

Initial requirements
1. Switch the appliance off.

Accessing

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the access within 10 seconds</td>
</tr>
</tbody>
</table>

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode **Programming**.

Options
1. Touch pad next to **Customer service**.
2. Touch pad next to **Restart**.

The appliance restarts. A restart is like a disconnection from main power. The fault code, as well as all settings made by the customer and user profiles created remain.

Save and quit
1. Touch pad **On/Off**.
6.1.19 **Appliance Variant – Set**

**Initial requirements**
1. Switch the appliance off.

**Accessing**

| Note | Complete the access within 10 seconds. |

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 5 times and at the 5th time, hold it until the programming mode appears.

**Acknowledgement indicator**
The display shows the positions of the programming mode

**Programming.**

**Options**
1. Touch pad next to **Customer service**.
2. Touch pad next to **Appliance variant**.
3. Touch pad next to the desired setting.
4. **Back (without saving):** Touch pad **Clear**.

**Hard plumbing**
- **available:** The appliance is hooked up to plumbing.
- **not available:** The appliance is not hooked up to plumbing.

**Factory setting:** not available.

**Dish warming drawer**
- **available:** A dish warming drawer is connected.
- **not available:** No dish warming drawer.

**Factory setting:** not available.

**Save and quit**
1. **Save and back:** Touch pad next to **OK**.
2. **End:** Touch pad **On/Off**.

**Quit (without saving)**
1. Touch pad **On/Off**.
6.1.20 **Descaling Lock – Reset**

**Initial requirements**
Switch the appliance off.

**Accessing**

**Note**
Complete the access within 10 seconds.

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 5 times and at the 5th time, hold it until the programming mode appears.

**Acknowledgement indicator**
The display shows the positions of the programming mode **Programming**.

**Options**
Touch pad next to **Reset descale**.

**no**: Back, without releasing the descale lock.

**yes**: The descale lock is lifted.

**Save and quit**
Touch pad **On/Off**.

**Warning!**
After service work is completed, descale the appliance.
6.1.21 Cleaning Lock – Reset

Initial requirements
1. Switch the appliance off.

Accessing

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the access within 10 seconds.</td>
</tr>
</tbody>
</table>

1. Touch pad Clear and hold.
2. Touch pad On/Off once.
4. Touch pad Clear 5 times and at the 5th time, hold it until the programming mode appears.

Acknowledgement indicator
The display shows the positions of the programming mode Programming.

Options
1. Touch pad next to Reset cleaning.

no: Back, without lifting the cleaning lock.

yes: The cleaning lock is lifted.

Save and quit
Touch pad On/Off.

Warning!
After service work is completed, clean the appliance.
6.2 Service Mode Overview

Initial requirements
1. Switch the appliance off.

Accessing

| Note | Complete the access within 10 seconds. |

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 3 times and at the 3rd time, hold it until the service mode appears.

Acknowledgement indicator
The display shows the positions of the **Service** mode.

Options
1. Touch the pad next to the desired position (refer).
2. Touch the pad next to the desired activation (refer).
3. **Back**: Touch pad **Clear**.

Save and quit
1. Touch pad **On/Off**.

<table>
<thead>
<tr>
<th>Position</th>
<th>Display / Activation</th>
<th>Description / Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ID NUMBER</strong></td>
<td>EPX</td>
<td>e. g. ID01087 V21, The ID number of the control electronic is displayed</td>
</tr>
<tr>
<td></td>
<td>EPL</td>
<td>e. g. ID33849 V10, The ID number of the power electronic is displayed</td>
</tr>
<tr>
<td><strong>FAULT MEMORY</strong></td>
<td>registered faults, refer to 021 Table 2</td>
<td>All faults that have occurred so far are indicated. To show the fault description, touch the pad next to the fault.</td>
</tr>
<tr>
<td>Delete</td>
<td></td>
<td>All saved faults are deleted.</td>
</tr>
<tr>
<td><strong>COMPONENT TEST</strong></td>
<td>Open</td>
<td>The solenoid for steam is opened.</td>
</tr>
<tr>
<td></td>
<td>Close</td>
<td>The solenoid for steam is closed.</td>
</tr>
</tbody>
</table>

Table 6-8: CVA4070 Service Mode (Continued on Table 6-9)
<table>
<thead>
<tr>
<th>Position</th>
<th>Display / Activation</th>
<th>Description / Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPONENT TEST</td>
<td>HOT WATER VALVE</td>
<td>Open</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Close</td>
</tr>
<tr>
<td>COMPONENT TEST</td>
<td>BREW UNIT</td>
<td>initialize</td>
</tr>
<tr>
<td></td>
<td></td>
<td>move counterclockwise for given period of time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>move counterclockwise for given period of time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>home position (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>drain position (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>compressing position (1)</td>
</tr>
<tr>
<td>COMPONENT TEST</td>
<td>GRINDER</td>
<td>On</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Off</td>
</tr>
<tr>
<td>COMPONENT TEST</td>
<td>WATER PUMP</td>
<td>On</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Off</td>
</tr>
<tr>
<td>COMPONENT TEST</td>
<td>STEAM PUMP</td>
<td>On</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Off</td>
</tr>
<tr>
<td>COMPONENT TEST</td>
<td>SYSTEM DRAIN PUMP</td>
<td>On</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Off</td>
</tr>
</tbody>
</table>

**Table 6-9:** CVA4070 Service Mode (Cont. from Table 6-8; Cont. on Table 6-10)
<table>
<thead>
<tr>
<th>Position</th>
<th>Display / Activation</th>
<th>Description / Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPONENT TEST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLOW–THRU WATER HEATER</td>
<td>On</td>
<td>The flow-thru heater coffee/hot water heats. The temperature indication on the heater goes increases.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>The flow-thru heater coffee/hot water is switched off.</td>
</tr>
<tr>
<td>FLOW–THRU HEATER STEAM</td>
<td>On</td>
<td>The flow-thru heater steam heats. The temperature indication on the heater increases.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>The flow-thru heater steam is switched off.</td>
</tr>
<tr>
<td>DISH WARMING DRAWER</td>
<td>On</td>
<td>The dish warming drawer is being heated.</td>
</tr>
<tr>
<td>N/A US models</td>
<td>Off</td>
<td>The dish warming drawer is switched off.</td>
</tr>
<tr>
<td>WATER SUPPLY VALVE 1</td>
<td>On</td>
<td>no function</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>WATER SUPPLY VALVE 2</td>
<td>On</td>
<td>no function</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>WATER SUPPLY VALVE 1+2</td>
<td>On</td>
<td>no function</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>DRIP TRAY</td>
<td>empty</td>
<td>The drip tray is not full.</td>
</tr>
<tr>
<td></td>
<td>full</td>
<td>The drip tray is full.</td>
</tr>
<tr>
<td>BEAN CONTAINER</td>
<td>empty</td>
<td>The bean container is not empty.</td>
</tr>
<tr>
<td></td>
<td>full</td>
<td>The bean container is empty or not inserted.</td>
</tr>
<tr>
<td>BREW UNIT 1</td>
<td>closed</td>
<td>The microswitch grinding amount compensation is activated.</td>
</tr>
<tr>
<td></td>
<td>open</td>
<td>The microswitch grinding amount compensation is not activated.</td>
</tr>
</tbody>
</table>

Table 6-10: CVA4070 Service Mode (Cont. from Table 6-9; Cont. on Table 6-11)
<table>
<thead>
<tr>
<th>Position</th>
<th>Display / Activation</th>
<th>Description / Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>SENSOR TEST BREW UNIT 2</td>
<td>closed</td>
<td>The microswitch top position control is activated.</td>
</tr>
<tr>
<td></td>
<td>open</td>
<td>The microswitch top position control is not activated.</td>
</tr>
<tr>
<td>SENSOR TEST BREW UNIT 3</td>
<td>closed</td>
<td>The microswitch bottom position control is activated.</td>
</tr>
<tr>
<td></td>
<td>open</td>
<td>The microswitch bottom position control is not activated.</td>
</tr>
<tr>
<td>SENSOR TEST BREW UNIT 4</td>
<td>closed</td>
<td>The brew unit is locked.</td>
</tr>
<tr>
<td></td>
<td>open</td>
<td>The brew unit is released</td>
</tr>
<tr>
<td>SENSOR TEST GROUND COFFEE FUNNEL</td>
<td>closed</td>
<td>The ground coffee funnel is closed.</td>
</tr>
<tr>
<td></td>
<td>open</td>
<td>The ground coffee funnel is open.</td>
</tr>
<tr>
<td>SENSOR TEST WASTE CONTAINER</td>
<td>closed</td>
<td>The waste container is present.</td>
</tr>
<tr>
<td></td>
<td>open</td>
<td>The waste container is missing</td>
</tr>
<tr>
<td>SENSOR TEST DOOR CONTACT</td>
<td>closed</td>
<td>The door is closed.</td>
</tr>
<tr>
<td></td>
<td>open</td>
<td>The door is open</td>
</tr>
<tr>
<td>SENSOR TEST WATER TANK</td>
<td>closed</td>
<td>The water tank is seated and filled.</td>
</tr>
<tr>
<td></td>
<td>open</td>
<td>The water tank is not seated or empty.</td>
</tr>
<tr>
<td>SENSOR TEST HARD PLUMBING</td>
<td>closed</td>
<td>no function</td>
</tr>
<tr>
<td></td>
<td>open</td>
<td>no function</td>
</tr>
<tr>
<td>SENSOR TEST NTC FLOW–THRU HEATER / WATER</td>
<td>e. g. 48 °C</td>
<td>Indicates the temperature at the flow-thru heater coffee/hot water.</td>
</tr>
<tr>
<td>SENSOR TEST NTC FLOW–THRU HEATER STEAM</td>
<td>e. g. 74 °C</td>
<td>Indicates the temperature at the flow-thru heater steam.</td>
</tr>
</tbody>
</table>

Table 6-11: CVA4070 Service Mode (Cont. from Table 6-10; Cont. on Table 6-12)
## Table 6-12: CVA4070 Service Mode (Continued from Table 6-11)

<table>
<thead>
<tr>
<th>Position</th>
<th>Display / Activation</th>
<th>Description / Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPERATING HOURS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLOW–THRU HEATER WATER</td>
<td>Operating hours of the</td>
<td>Operating hours of the flow-thru heater coffee/hot water.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLOW–THRU HEATER STEAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operating hours of the</td>
<td>Operating hours of the flow-thru heater steam.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESPRESSOS DISPENSED</td>
<td></td>
<td>Number of espressos dispensed.</td>
</tr>
<tr>
<td>DOUBLE ESPRESSOS DISPENSED</td>
<td></td>
<td>Number of double espressos dispensed.</td>
</tr>
<tr>
<td>COFFEES DISPENSED</td>
<td></td>
<td>Number of coffees dispensed.</td>
</tr>
<tr>
<td>DOUBLE COFFEES DISPENSED</td>
<td></td>
<td>Number of double coffees dispensed.</td>
</tr>
<tr>
<td>CAPPUCINOS DISPENSED</td>
<td></td>
<td>Number of cappucinos dispensed.</td>
</tr>
<tr>
<td>HOT WATER DISPENSED</td>
<td></td>
<td>Number of hot water servings dispensed.</td>
</tr>
<tr>
<td>MILK FROTH DISPENSED</td>
<td></td>
<td>Number of milk froth servings dispensed.</td>
</tr>
<tr>
<td>NUMBER OF DESCALES</td>
<td></td>
<td>Shows the number of descales that have been carried out.</td>
</tr>
<tr>
<td>NUMBER OF CLEANINGS</td>
<td></td>
<td>Number of cleanings that have been carried out.</td>
</tr>
</tbody>
</table>

*1 The positions only become visible once the brew unit has been initialized.
6.3 Fault Codes – Read, Save and Delete

6.3.1 Fault Code Accessing

Initial requirements
Switch the appliance off.

Accessing

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the access within 10 seconds.</td>
</tr>
</tbody>
</table>

1. Touch pad **Clear** and hold.
2. Touch pad **On/Off** once.
3. Release pad **Clear**.
4. Touch pad **Clear** 3 times and at the 3rd time, hold it until the service mode appears.

Acknowledgement indicator
The display shows the positions of the **Service mode**.

Options
1. Touch pad next to Fault memory.
2. To show the fault description, touch the pad next to the fault.
3. Save the fault and back: Touch pad next to OK. Touch pad **Clear**.
4. Delete the fault and back: Touch pad next to delete.

Faulty codes Refer to Tables:

Save and quit
1. Touch pad On/Off.
### Fault Code Summary

<table>
<thead>
<tr>
<th>Fault Code</th>
<th>Fault Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>Shortcircuit temperature sensor NTC coffee/hot water</td>
</tr>
<tr>
<td>F2</td>
<td>Open circuit temperature sensor NTC coffee/hot water</td>
</tr>
<tr>
<td>F3</td>
<td>Shortcircuit temperature sensor NTC steam</td>
</tr>
<tr>
<td>F4</td>
<td>Open circuit temperature sensor NTC steam</td>
</tr>
<tr>
<td>F10</td>
<td>No water supply</td>
</tr>
<tr>
<td>F17</td>
<td>Insufficient water supply</td>
</tr>
<tr>
<td>F41</td>
<td>EEPROM faulty /wrong data</td>
</tr>
<tr>
<td>F42</td>
<td>Frequency not registering</td>
</tr>
<tr>
<td>F43</td>
<td>No communication between control electronic and power electronic</td>
</tr>
<tr>
<td>F73</td>
<td>Brew unit fault</td>
</tr>
<tr>
<td>F80</td>
<td>Flow-thru heater coffee/hot water not heating</td>
</tr>
<tr>
<td>F81</td>
<td>Flow-thru heater steam not heating</td>
</tr>
<tr>
<td>F82</td>
<td>Flow-thru heater coffee/hot water too hot</td>
</tr>
<tr>
<td>F83</td>
<td>Flow-thru heater steam too hot</td>
</tr>
</tbody>
</table>

*Table 6-13: CVA4070 Fault Code Summary*
6.3.3  **F1**
Short circuit in the temperature sensor NTC coffee/hot water

- Check the connecting cables.
- Replace the connecting cables if necessary.
- Temperature sensor Flow-thru heater coffee/hot water– Check, 0214.46.
- Check the temperature sensor.

6.3.4  **F2**
Open circuit temperature sensor NTC coffee/hot water

- Check the connecting cables.
- Replace the connecting cables if necessary.
- Temperature sensor Flow-thru heater coffee/hot water– Check, 0214.46.
- Replace the temperature sensor if necessary.

6.3.5  **F3**
Short circuit temperature sensor NTC steam

- Check the connecting cables.
- Replace the connecting cables if necessary.
- Temperature sensor Flow-thru heater steam.
- Replace the temperature sensor if necessary.

6.3.6  **F4**
Open circuit temperature sensor NTC steam

- Check the connecting cables.
- Replace the connecting cables if necessary.
- Temperature sensor Flow-thru heater steam.
- Replace the temperature sensor if necessary.

6.3.7  **F10**
Hoses broken, clogged, kinked.

- Check the hoses.
- Replace the hoses if necessary.
Technical Information

Water tank valve jammed, clogged.

- Check the water tank valve.
- Replace the water tank if necessary.

Flow meter defective.

- Flow meter – Remove
  - Install a new flow meter.

Pump coffee/hot water defective.

- Coffee/hot water pump – Remove
  - Install a new pump coffee/hot water.

6.3.8 F17 – Insufficient Water Supply
The water tank is not seated correctly.

- Push the water tank in correctly.

Hoses broken, clogged, kinked.

- Check the hoses.
- Replace the hoses as necessary.

Water tank valve jammed, clogged.

- Check the water tank valve.
- Replace the water tank as necessary.

Flow meter defective.

- Flow meter – Remove,
  - Install a new flow meter.

Pump coffee/hot water defective.

- Coffee/hot water pump – Remove
  - Install a new pump coffee/hot water.
6.3.9  **F41**  
Faulty EEPROM/Wrong data

- Control electronic EPX – Remove
- Install a new control electronic.

6.3.10 **F42**  
Main power frequency not registered

- Verify correct source voltage & frequency.

6.3.11 **F47**  
Faulty interface of control electronic and power electronic.

- Check the cable between control electronic and power electronic.
- Replace the connecting cable if necessary.

6.3.12 **F73 – Faulty Brew Unit**  
When the brew unit is activated, if one of the two microswitches does not switch within approx. 10 seconds. F73 is registered.

![Diagram of CVA4070 Faulty Brew Unit](image)

1 Microswitch position control top (home position)  
2 Microswitch position control bottom (compress and drain position)

**Figure 6-1:** CVA4070 Faulty Brew Unit

Brew unit blocked.

- Disconnect the appliance from the main power supply.
- Remove any foreign matter.
- Clean the affected components
Defective microswitch or no continuity in connectors.

- Check the connecting cables.
- Replace the connecting cables as necessary.
- Position control microswitch – Check
- Replace the microswitch if necessary.

Brew unit drive defective.

**Note**

When installing the brew unit, make sure that the pawl is set to the home position, refer to Figure 6-1. Brew unit drive, home position.

- Install a new brew unit drive.

### 6.3.13 F80 Cause

Flow-thru heater coffee/hot water (2R1) does not heat.

- Flow-thru heater coffee/hot water – Check
- If necessary, Flow-thru heater coffee/hot water – Remove
- Install a new flow-thru heater coffee/hot water.

Temperature fuse has tripped.

- Replace the temperature fuse.

### 6.3.14 F81

Flow-thru heater steam does not heat.

- Flow-thru heater steam – Check
- If necessary, Flow-thru heater steam – Remove
- Install a new flow-thru heater steam.

Temperature fuse has cut out.

**Note**

To be able to continue using the appliance for the preparation of coffee and hot water until service is performed, the customer can switch the steam system off, refer to Steam system – On/off.
6.3.15  F82
The temperature is higher than 266°F (130 °C).

• If the temperature fuse has tripped it has to here placed.

6.3.16  F83
The temperature is higher than 356°F (180 °C).

• If the temperature fuse has tripped, it has to here placed.