

Operating Manual

Tilting Cooking Kettle OptiMix and MultiMix models with
AutoTemp35 or AutoTemp55 controller

Tilting Cooking Kettle EasyMix and EasyStandMix models
with AutoTemp15 controller

Tilting Cooking Kettle Easy, EasyOne, EasyMobil and
EasyStand models with AutoTemp11 controller

Tilting Cooking Kettle Opti and Multi models with AutoTemp31
or AutoTemp51 controller

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Foreword

This manual contains operating instructions for the cooking kettle. The 'Installation Instructions' and 'Service Instructions' folders contain additional information on the cooking kettle.

Please contact your dealer if you have any further questions concerning the product.

Before use

Please read these user instructions carefully before using the cooking kettle for the first time. This will ensure that you know how to use the kettle correctly and are aware of the necessary safety precautions to protect both the user and the kettle itself.

Purpose

The cooking kettle is intended for professional use in connection with heating, cooking, stirring and other similar food preparation processes at catering centres.

The kettle must not be used for other purposes, including the heating of acids or other chemical substances, and the kettle must not be filled with abrasive substances.

The kettle must be stored and used indoors.

If the kettle is used for a purpose other than its intended purpose, the manufacturer's guarantee and liability for the product, including in respect of any direct or consequential damage to material or injury to people, shall cease to apply.

General

Certain functions described in this operating manual are based on a particular controller or additional equipment for the kettle. In 'Factory data' you can see which controller and additional equipment are fitted to your kettle.

The operation of the kettle is described using the measurement unit's degrees Celsius and litres. If different measurement units are selected in factory data, the descriptions can be switched to these units without further action on the part of the user.

The environment

The machine has been designed and manufactured in an environmentally friendly way.

Virtually all the materials used can be recycled, and the manufacturing process was carried out with a focus on minimising the release of environmentally harmful substances into the environment as well as the recycling of raw materials to the maximum extent.

The machine has been designed so that its energy and water consumption when in operation is minimised.

Symbol explanation



Warnings concerning possible damage to the machine, injury to people, etc. have been written in this format and are indicated by the symbol shown in the margin.

Safety

The machine has been designed with personal safety, hygiene, working environment and ergonomic operation in mind. Other risks related to its use are referred to in the relevant sections.

First Aid in the event of scalding

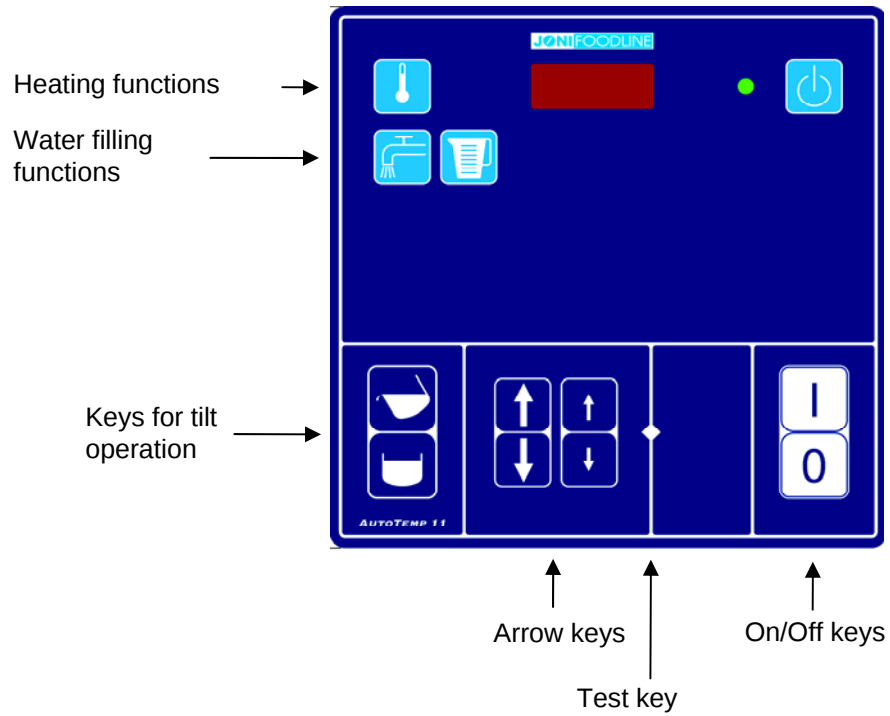
- Rinse scalded areas immediately with cold water. Remove loose-fitting clothing from the scolded areas as soon as possible.
- Fill a bucket or other container with water at a temp. of approx. 15°C. Hold scalded body part in water until it no longer hurts when removed from water (at least 30 minutes.)
- Depending on size and degree of scalding, call emergency services.
- Never apply ointment to scalds.

General functions

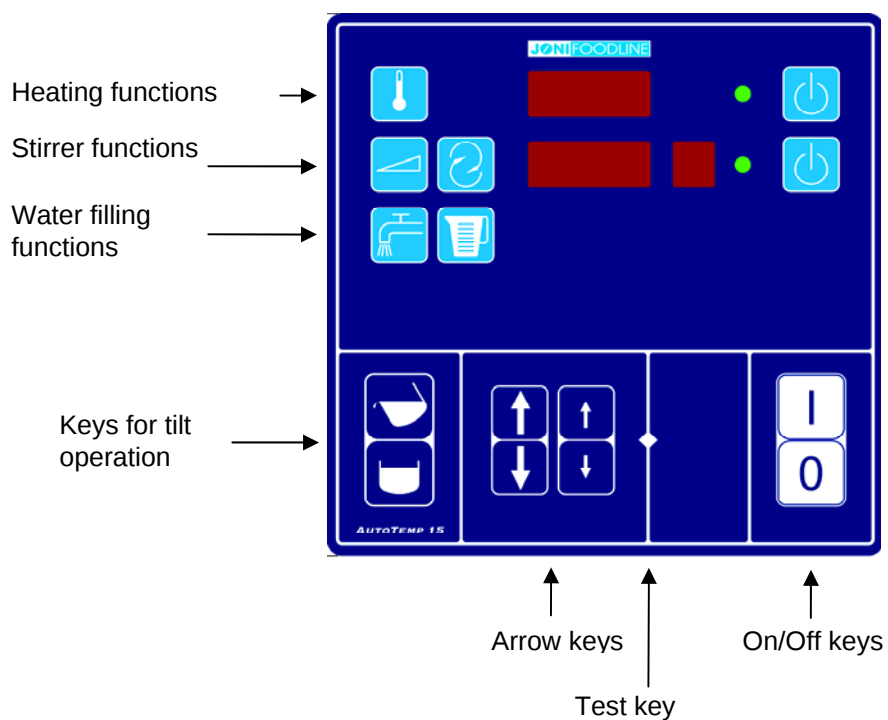
Layout of the control panel

The controller's functions are shown on the display gathered in function groups to make operation simple and clear.

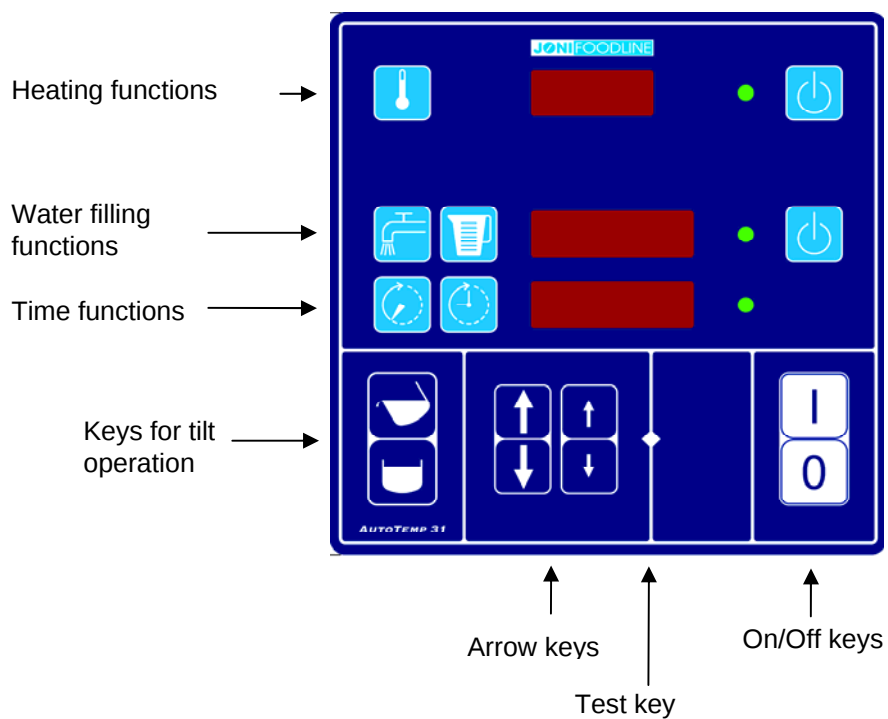
AutoTemp 11



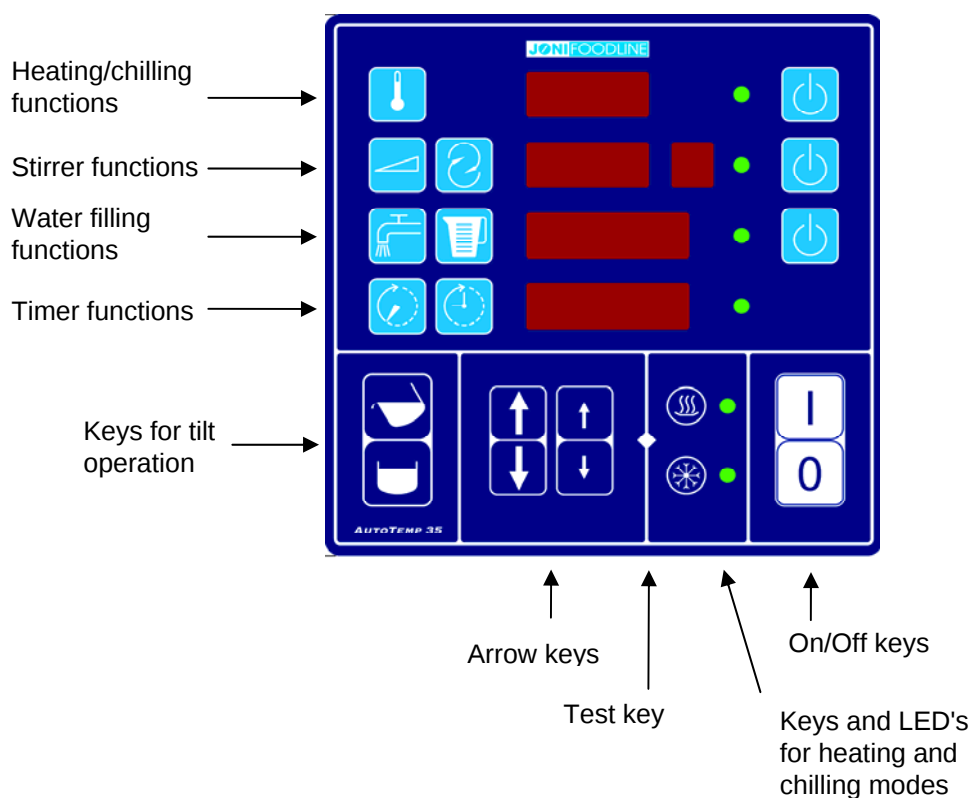
AutoTemp 15



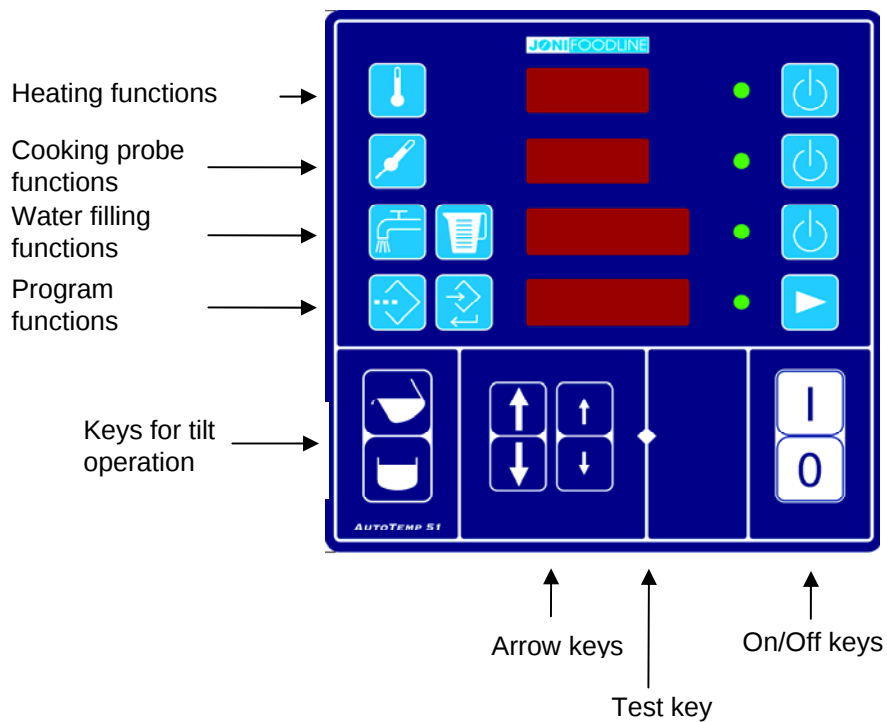
AutoTemp 31



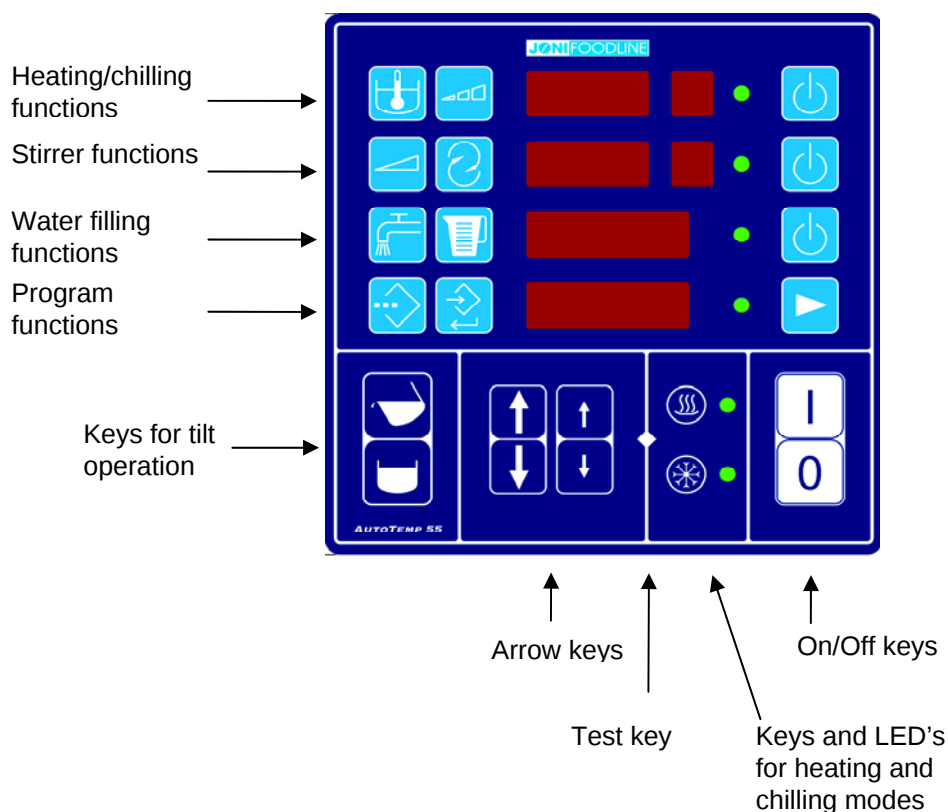
AutoTemp 35



AutoTemp 51

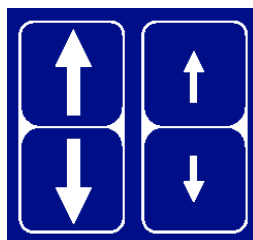


AutoTemp 55



General control methodology

In general, a function key is pressed so that the associated display flashes, indicating that the value can be altered using the arrow keys. The large arrows change the value in large steps and the small arrows change the value in small steps. If the key is held down, the value will increase/decrease at an increasing rate. This enables the required setting to be achieved by simply pressing a few keys.



For all relevant function groups there is an ON/OFF key  and a LED.

Pressing  alternately activates and deactivates the function. The LED will illuminate when the function is activated.

Setting parameters

The operation of the kettle depends on a number of parameters, e.g. the volume of the kettle, which must be set correctly in order for the kettle to work. These parameters are set in the sections 'User menu' and 'Factory settings menu'.

Error codes

The system continually monitors many factors in order to protect the machine and the user. If the machine detects a fault, an error code will be shown, as described in the section 'Error codes'.

Operation

-  When using the kettle, both the intended purpose of the kettle and the safety instructions must be followed.
-  Always ensure kettle is sufficiently clean before use.
-  Never touch the top or inside of the kettle without first checking whether it is hot, as a kettle that is in use can become so hot that anyone touching it risks a burn injury.
-  A kettle which has been in use will cool down very slowly and anyone touching it risks a burn injury long after it has been switched off. The control panel does not give any warning of this, as it will extinguish when  is pressed.
-  Exercise caution when the contents of the kettle are boiling. Splashes from the kettle and over boiling liquids may burn or scald anyone nearby.
-  Metal stirring implements which can cause wear must not be used.
-  Valves on the kettle bowl must not be opened when the kettle is pressurized.
-  For safety reasons, the kettle must not be filled to within 5 cm from the rim. Otherwise, there is an increased risk of over boiling and emptying the kettle will be difficult.
-  If error code E99 is shown, the pressure in the kettle is too high and the heating power supply to the kettle must be turned off immediately. Isolate the power supply to the kettle at the main switch and make sure that the kettle is repaired before taken into use again.
-  During use, no steam may be discharged from the safety valve. If this happens, isolate the power supply to the kettle immediately and make sure that the kettle is repaired before taken into use again.
-  During normal use, hot air/steam will be discharged from the venting valve. In the event of a fault, steam may be discharged

from the safety valve.

Note that any steam that is discharged could cause burn injuries.

- ⚠ Connections between the steam jacket and the outside must not be blocked. This applies, for example, to the safety valve, venting valve, vacuum valve and level valves.**
- ⚠ The kettle must not be left unattended when in use.**
- ⚠ The kettle must be operated from the front.**
- ⚠ No one must be present immediately behind the kettle when it is in use.**
- ⚠ If the kettle is on castors, the castor brakes must be engaged when the kettle is in use.**



Castor brakes disengaged



Castor brakes engaged

- ⚠ The kettle must not be moved when its contents are so hot that there is a risk of scalding.**
- ⚠ If a dangerous situation should arise involving the kettle, press the emergency stop button immediately. This will stop all functions. The power is applied again by manually turning the emergency stop button.
(This only applies to kettles with a stirrer)**
- ⚠ Stainless steel surfaces are protected by a thin layer of chromoxide, which is vulnerable to damage by use of steel implements and exposure to chlorine, as found in normal kitchen salt for example.
Never add salt to cold water in a kettle. Wait until the water is hot, when the salt will dissolve. This will prevent salt crystals**

settling at the bottom of the kettle where they can damage the chromoxide layer, exposing the steel to corrosion.

Switching the kettle on and off

Turn kettle power supply on by turning the handle clockwise to position 'I'.

Turn off by turning the handle anticlockwise to position '0'.



Power on



Power off

The kettle's controller is switched on by pressing  and switched off by pressing .

Entering an access code (AutoTemp 31, 35, 51 and 55 only)

If a requirement for an access code has been activated in the user menu in order to switch the kettle on, the heating display will show 'PAS', and a four digit access code must be entered in order to activate the kettle.

The code will be shown in the water display and is set using the arrow keys. The large arrows alter the code by 100 and the small arrows alter the code by 1.

When the access code has been selected, press water-.

If the code is correct, the kettle will be activated. If it is incorrect, error code U01 will be shown for three seconds, after which another attempt can be made.

Operating the tilting function

 **When the kettle's tilting function is used, no one may be present immediately below or behind the kettle due to the risk of crushing injuries.**

-  **When the tilting function is operated, no hands or fingers may be placed between any fixed or moving components due to the risk of crushing injuries.**
-  **The kettle must be emptied carefully, taking into account the risk of scalding and other factors such as the size and capacity of the floor grates, etc.**
-  **When emptying the kettle, keep clear of the front of the kettle, as the pouring lip and any splashing liquids could cause scalding.**
-  **There must always be open space around the moving components of the kettle when it is being tilted. Ensure there is sufficient space to evacuate the danger zone.**
-  **The lid must be open before the kettle is tilted.**

The kettle will tilt when  is pressed. The kettle will stop automatically when it is fully tilted.

When the key is released, the kettle will remain in its current position, unless the 'automatic return tilt' function is activated in the user menu. After a pre selected number of seconds, the kettle will then return for a pre selected number of seconds. This does not however apply when the kettle is only slightly tilted or when it is fully tilted.

Note: This function is very useful when emptying the contents of the kettle into smaller containers.

The kettle will return when  is pressed. When the key is released, the kettle will remain in its current position. The kettle will stop automatically when it returned to the vertical position.

Adjusting the heat

Note: When the kettle is heating, pressure is built up inside the jacket. This pressure can be observed at the pressure gauge at the rear of the kettle.

Automatic water level control in steam generator

Water level in the steam generator is monitored by the kettle control system. Water will be added automatically if necessary to maintain the correct level.

Manual draining of condensate (steam-heated kettles only)

Under normal operating conditions, condensate is bled off automatically.

In certain conditions or as a result of incorrect installation, condensate can build up in the bottom of the kettle.

This causes a loud noise when steam is passed through the condensate.

In such instances, the condensate can be drained through a valve at the bottom of the kettle jacket.

Step 1: Switch off heat to the kettle, and position kettle vertically.

Step 2: Wait until pressure in the steam chamber reaches 0 bar.

Step 3: Open valve to bleed condensate.



⚠ Beware of hot steam/water when valve is opened!

Step 4: Close valve when condensate flow stops.

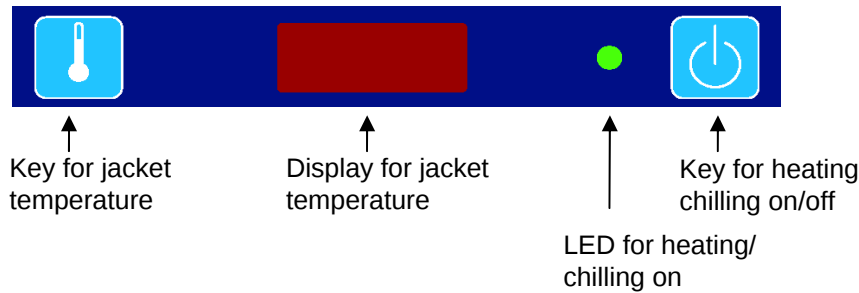


Step 5:

The kettle can now be heated.

AutoTemp 11, 15, 31, 35 and 51

The heat is adjusted using the part of the panel shown in the following illustration.

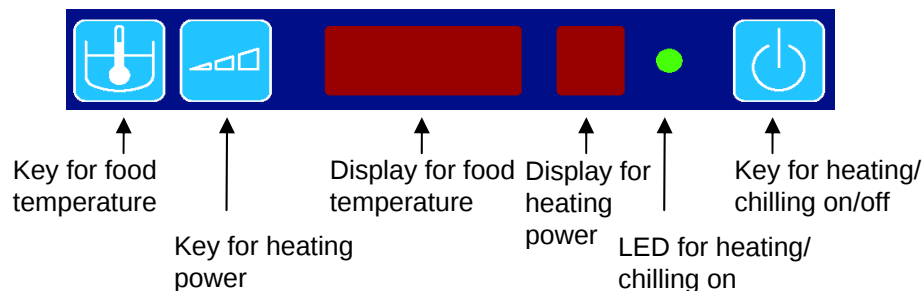


Generally, the display will show the actual jacket temperature. The temperature set point for the steam jacket is set by pressing  so that the display flashes. Set the temperature set point using the arrow keys.

The function will be exited automatically after three seconds without a key press or if another function is selected.

AutoTemp 55

The heat is adjusted using the part of the panel shown in the following illustration.



By default, the display will show the actual food temperature. The set point for food temperature is set by pressing  so that the display flashes. Set the temperature set point using the arrow keys.

The function will be exited automatically after three seconds without a key press or if another function is selected.

The required heating power is set by pressing  so that the display flashes. Set the required power using the arrow keys.

The function will be exited automatically after three seconds without a key press or if another function is selected.

Note: The heating power function is used to determine the temperature of the steam jacket on the basis of the food temperature, and therefore how powerful the heating should be.

As the food is heated, the temperature of the jacket will automatically increase.

Lower power gives gentler heating but a longer heating time. Higher power gives less gentle heating but a shorter heating time.

When power step 9, is selected, the temperature of the jacket will be set to maximum and the heating time will be the shortest possible.

General

The heating power supply is switched on/off by pressing . The LED will illuminate when the heating is switched on.

To ensure that the food is heated uniformly and quickly, it should be stirred whenever possible. This also gives an even distribution of heat, and therefore better temperature measurement to control the heating process.

The kettle must be in the vertical position in order to heat its contents. If this is not the case, error code U10 will be shown and the LED will flash until the kettle has returned to the vertical position or the heating has been switched off. If the kettle is vertical again within two minutes, the heating will be switched on automatically. If it takes longer than this, the heating must be switched on manually.

Operating the chilling function (Additional equipment)

AutoTemp 35 and 55



Watch out for discharging water/steam from the bottom of the kettle when the chilling function is activated.

The chilling function is used to chill the contents of the kettle.

In technical terms, there are two solutions:

- Tap water is let in through the steam jacket from where it flows to the floor grate.
- Chilled water is pumped from an ice bank / chilled water tank through the steam jacket and back to the ice bank.

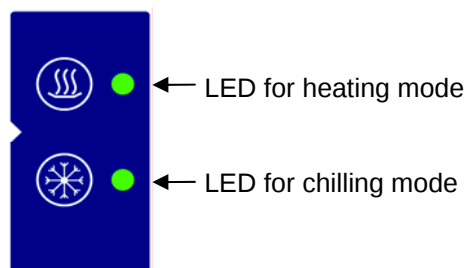
In both cases, the steam jacket is filled with water until the temperature of the jacket decreases below 80 °C before the chilling process is started. This ensures that there is no pressure in the kettle when the chilling process is started.

If the chilling takes place through the circulation of chilled water, a rinsing period can be set in the user menu to take place before the coolant is circulated. During the rinsing period, water is let in from

the water supply through the steam jacket and down into the floor grate. This ensures that the hot water is removed from the steam generator without imposing a load on the chilling unit.

Chilling mode

The kettle's function depends on whether it is in heating mode or chilling mode. The control panel indicates which mode is active.



The kettle is switched to chilling mode by pressing  and holding the key down for three seconds until the LED for heating mode extinguishes and the LED for chilling mode illuminates. If the user attempts to switch to chilling mode and chilling mode has not been activated in the factory settings menu, error code U40 will be shown.

Note: When chilling, depending on the contents of the kettle and stirring there may be a difference between the temperature shown in the display and the actual temperature of the food. It is therefore important to check the temperature of the food with another temperature measurement directly in the food.

Setting the set point for food temperature

With the AutoTemp35 controller, the user cannot set the set point for food temperature, only start and stop the chilling process.

With the AutoTemp55 controller, both the set point for food temperature and the required chilling intensity can be set.

The set point for food temperature is set by pressing  so that the display flashes. Set the temperature set point using the arrow keys. The function will be exited automatically after three seconds without a key press or if another function is selected.

Note: To ensure that the food is at the temperature set point, it may be necessary to set the set point for food temperature lower, e.g. to 1 °C.

Starting and stopping chilling

Chilling is started/stopped by pressing . The LED will illuminate when chilling is switched on.

The kettle must be in the vertical position in order to chill. If this is not the case, error code U11 will be shown and the LED will flash until the kettle has returned to the vertical position or chilling has been switched off. If the kettle is returned to the vertical again within two minutes, chilling will be switched on automatically again. If it takes longer than this, chilling must be switched on manually again.

Note: The kettle's chilling function works best when the contents of the kettle are stirred during chilling. This ensures uniform distribution of cooling throughout the food.

Setting water consumption for chilling

This function is used to set the intensity of the chilling. The lower the value that is selected, the smaller the quantity of water that passes through the steam jacket and the longer the chilling process will last. When power step 9 is selected, the flow rate will be set to maximum and the chilling time will be the shortest possible.

Note: If the coolant used is water which flows through the floor grate, the kettle's water consumption can be reduced considerably using this function.

With the AutoTemp 55 controller, the required chilling power is set by pressing  so that the display flashes. Set the required power using the arrow keys.

The function will be exited automatically after three seconds without a key press or if another function is selected.

With the AutoTemp 35 controller, the required chilling power is set in the user menu; see section 5.1.

Heating mode

The kettle is switched to heating mode by pressing  and holding the key down for three seconds until the LED for chilling mode extinguishes.

The kettle now performs an initialisation which takes several minutes, as the steam jacket must be emptied of coolant. During this period, the LED next to  flashes and the kettle can neither heat nor chill.

When the initialisation is complete and the kettle is ready to heat, the LED next to  will illuminate.

Note: If the kettle is equipped with cooling, an initialisation is always run through the first time the kettle is switched on after it has been disconnected from the power source. This initialisation can be interrupted by pressing  within 3 seconds after the LED for heating mode has begun flashing.

AutoTemp 11, 15, 31 and 51

The chilling function is used to chill the contents of the kettle. Chilling takes place by letting water through the steam jacket down to the floor grate.

Note: The kettle's chilling function works best when the contents of the kettle are stirred during chilling. This ensures uniform distribution of cooling throughout the food.

Note: When chilling, depending on the contents of the kettle and stirring there may be a difference between the temperature shown in the display and the actual temperature of the food. It is therefore important to check the temperature of the food with another temperature measurement directly in the food.

Start of cooling

- Step 1: Switch off the kettle's heating and set the kettle bowl in the vertical position.
- Step 2: Set the selector switch to chill and wait until the pressure in the steam jacket is app. 0 bars.



Heating



Chilling

Step 3: Open the valve for chilling water out.



⚠ Watch out for discharging steam/hot water when the valve for chilling water out is opened!

Step 6: Close the kettle's venting valve. This is located on the back of the kettle and is open during normal use.



Open valve



Closed valve

Step 7: The water now flows through the steam jacket, thus chilling the contents of the kettle. It leaves the jacket by the valve for chilling water out.

Ending cooling

Step 1: Shut off the water supply to the kettle's steam generator by setting the selector switch to heating.



Heating



Chilling

Step 2: Close the valve for chilling water out.



Step 3: Open the kettle's venting valve.



Open valve



Closed valve

Step 4: Open the valve for water level and allow the excess water to drain out.

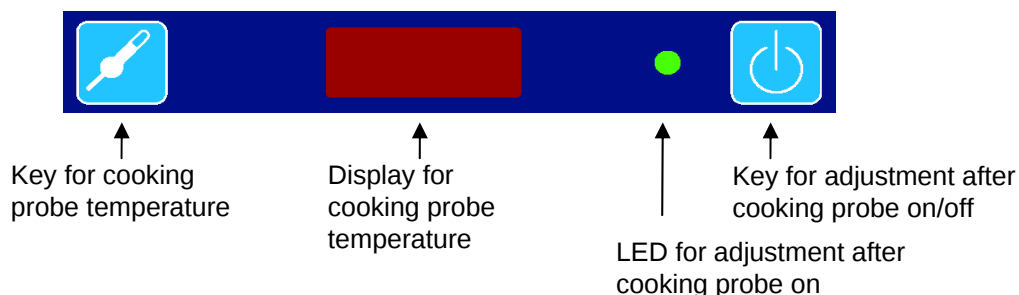


Step 5: Close the valve for water level when no more water is draining out.

The kettle is now ready for heating.

Cooking probe (AutoTemp 51 only)

The cooking probe is operated using the part of the panel shown in the following illustration.



The cooking probe function can be used in one of two ways:

- The temperature of the cooking probe is shown in the display and the supply of heat to the kettle is controlled both according to the temperature set point of the cooking probe and the required jacket temperature. This means that when one of the two temperature set points has been reached, no further heat will be supplied.
- The temperature of the cooking probe is shown in the display, but the supply of heat is controlled according to the required jacket temperature as with normal use.

Note: The measuring point of the cooking probe is located in the tip of the probe. It is important to be aware of exactly where this point is located, as the temperature can vary considerably from one point to another within the food, e.g. in a piece of meat.

Control using the cooking probe temperature

Press  so that the display flashes and set the temperature set point using the arrow keys.

The function will be exited automatically after three seconds without a key press or if another function is selected.

The display now shows the actual temperature of the cooking probe.

If you want to check/adjust the temperature set point you must press  again.

Press  if the supply of heat is to be regulated according to the temperature of the cooking probe. The LED will illuminate to indicate that the function is active.

Switch off the function by pressing  again so that the LED extinguishes.

The cooking probe function is deactivated by holding down  for three seconds.

Note: If for example a piece of meat is to cook until it reaches 70°C in the middle with a set jacket temperature of 103°C, the supply of heat will initially be limited by the temperature of the jacket. After a particular period of time, the core temperature of the meat will however reach 70°C and no more heat will be supplied. In this situation, it is likely that the core temperature of the meat will rise further as the heat from the water and the rest of the meat spreads evenly through the meat. Further heat will only be supplied when the core temperature of the meat again falls below 70°C.

Note: The cooking probe can be used to limit the temperature of the kettle's contents, thus preventing over boiling.

Viewing the cooking probe temperature

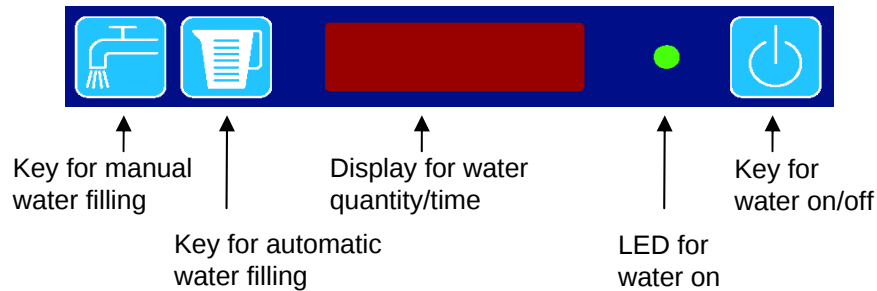
Press  so that the display flashes. After three seconds without any further key press or the selection of another function, the actual temperature of the cooking probe will be shown.

The cooking probe function is deactivated by holding down  for three seconds.

Filling the kettle with water

AutoTemp 31, 35, 51 and 55

The water filling function is adjusted using the part of the panel shown in the following illustration.



Automatic water filling

This function enables a particular quantity of water to be added to the kettle.

The function depends on whether the kettle is fitted with a water flow meter.

Automatic water filling with a water flow meter (Additional equipment)

With this method, a water flow meter is fitted to the kettle, so that the controller accurately measures how much water is added to the kettle.

Automatic water filling without a water flow meter

In this case, the method is selected in the user menu:

- **Estimated water quantity.**
With this method the user must specify in the user menu how much water that flows into the kettle in one minute. Based on this value, the required number of litres is converted to the number of minutes that the solenoid valve should remain open.
The advantage of this method is that the required quantity can be set without purchasing any additional equipment. The disadvantage is that the measurement will be imprecise if the water pressure fluctuates.
- **Time-specific measurement (Default setting).**
With this method, the user specifies how long time the solenoid valve should remain open. When this time has elapsed the

solenoid valve will be closed.

The advantage of this method is that it is easy to understand. The disadvantages are that the quantity will depend on the water pressure and that setting the time correctly requires practice.

Operating the water flow meter and estimated water quantity

Press  so that the display flashes and set the required quantity using the arrow keys. The quantity is set to one decimal with a maximum value equal to the volume of the kettle.

The large arrows change the set quantity by 10 litres and the small arrows change the quantity by 0.1 litres until the value has been changed by 1 litre, after which it will start to change by 1 litre at a time.

The function will be exited automatically after three seconds without a key press or if another function is selected.

The display will now show the required quantity. If you want to adjust the required quantity you must press  again.

Start the filling of the required quantity by pressing  so that the LED illuminates and the quantity is counted down. Filling will stop automatically when the required quantity reaches 0.

The filling process can be interrupted by pressing  again so that the LED extinguishes. The remaining quantity can now be adjusted using the arrows.

The display will automatically disappear after 10 minutes without use or if  is held down for three seconds.

Operation of time-specific measurement

Press  so that the display flashes and set the required time using the arrow keys. The time is set in minutes and seconds.

The large arrows change the minutes by 1 and the small arrows change the seconds by 1.

The function will be exited automatically after three seconds without a key press or if another function is selected.

The display will now show the required time. If you want to adjust the required time you must press  again.

Start the filling process for the required time by pressing  so that the LED illuminates and the quantity is counted down. Filling will stop automatically when the required time reaches 0.

The filling process can be interrupted by pressing  again so that the LED extinguishes. The remaining time can now be adjusted using the arrows.

The display will automatically disappear after 10 minutes without use or if  is held down for three seconds.

Manual water filling

This function enables the user to fill the kettle with water by holding down a key.

When  is pressed, water will be added to the kettle. The quantity added or time will be counted on the display, depending on the settings.

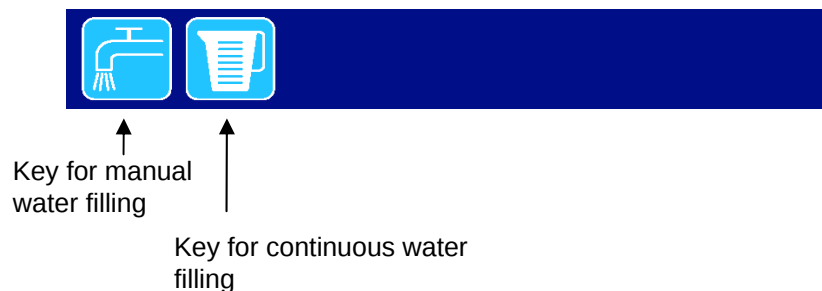
Filling will stop when  is released.

If  is pressed again within three seconds, the counting of the quantity added will continue.

If  is not pressed again within three seconds, the function will be exited and any set quantity will be shown on the display.

AutoTemp 11 and 15

Water filling is controlled using the part of the panel shown in the following illustration.



Manual water filling

This function enables the user to fill the kettle with water by holding down a key.

When  is pressed, water will be added to the kettle.

Filling will stop when  is released.

Continuous water filling

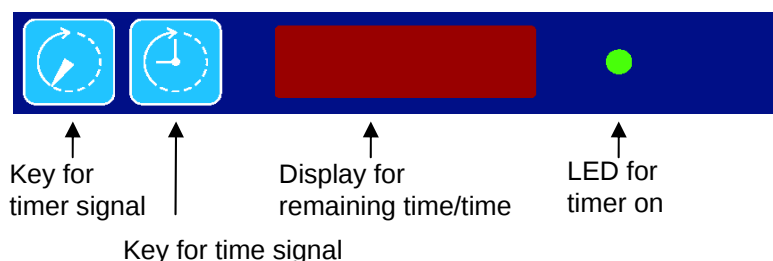
This function enables the user to fill the kettle with water without holding down a key.

Water filling will start when  is pressed.

Filling will stop when  is pressed again.

Timer (AutoTemp 31 and 35 only)

The Timer function is controlled using the part of the panel shown in the following illustration. The first two digits in the display show hours and the last two digits show minutes.



The Timer function enables the heating/chilling function to be switched off either at a particular time or after a remaining period of time. The beeper and display are also activated and the LED will flash.

The signal lasts for ten seconds, but can be stopped by pressing either  or .

If the Timer function is not active, the current time will be shown on the display.

The Timer is activated automatically if a time or remaining time is set. The LED will illuminate when the function is activated.

The Timer is deactivated by holding down  or  for three seconds.

Setting the time for the signal

Press  so that the display and LED flash slowly. Set the required time using the arrow keys.

If the Timer function is active, the current signal time will be shown. The function will be exited automatically after three seconds without a key press or if another function is selected.

Setting the remaining time before the signal

Press  so that the display and LED flash slowly. Set the required time using the arrow keys.

If the Timer function is active, the current remaining time will be shown.

The function will be exited automatically after three seconds without a key press or if another function is selected.

Stirrer (AutoTemp 15, 35 and 55 only)

- ⚠** Never put your hands, fingers or objects down into the kettle when the stirrer is switched on.
- ⚠** Never touch the stirrer connection or shaft when the stirrer is operating.
- ⚠** Adjust the speed of the stirrer according to how full the kettle is, so that the contents do not splash over. Always increase speed slowly.
- ⚠** Do not lean in over the stirrer with loose hanging clothing, scarves, ties, long hair, etc.
- ⚠** The stirrer must only be used with a closed lid.
This does not however apply to the SlowMix function
(Additional equipment)
- ⚠** Stop the stirrer and wait until the stirrer tool is stationary before opening the lid.
- ⚠** If the stirrer is able to operate with an open lid, the kettle's controller has a critical fault.
If this is the case, use of the kettle must be stopped immediately.
Disconnect the power supply to the kettle at the main switch and contact your service dealer.
This does not however apply to kettles fitted with SlowMix
(Additional equipment).
- ⚠** If the stirrer on kettles with the Slow Mix additional equipment is able to continue operating at more than 20 revolutions per minute (RPM), the kettle's controller has a critical fault.
If this is the case, use of the kettle must be stopped immediately.
Isolate the power supply to the kettle at the main switch and contact your service dealer.

The stirrer enables the food to be stirred mechanically, so that manual stirring is unnecessary.

Stirring can be used to mash potatoes, thicken sauces, etc. but as stirring also gives an even and faster heating/cooling of the kettle contents, it should almost always be used.

During clockwise stirring, the stirrer tool scrapes against the sides/bottom of the kettle, thus having maximum effect.

During anticlockwise stirring, the stirrer tool does not touch the sides/bottom of the kettle, and therefore has less effect. This is used when gentle stirring is required or if the contents of the kettle are very viscous and difficult to stir.

For safety reasons, the stirrer can only be used when the lid is closed. If the stirrer is activated when the lid is open, an error code will be shown.

If the kettle is fitted with SlowMix, the stirrer can however rotate slowly when the lid is open and the kettle is tilted.

The fan in the bottom of the kettle allows the stirrer motor to be cooled. It ventilates the air when the stirrer is operating or the jacket temperature exceeds 40 °C.

Fitting a stirrer/cleaning tool

Before the stirrer is started, it is important that the tool is mounted correctly in the kettle. This procedure is described below.

Step 1: Tilt the kettle bowl so that it is horizontal.

Step 2: Push the tool in over the shaft of the stirrer.
Make sure that the bottom scraper on the stirrer is on the right-hand side and hangs down. The side scraper should be on the left-hand side and point upwards.
Make sure that the brushes on the cleaning tool are pressed into place on the rails.
If necessary, place the tool on a height-adjustable trolley, which can be pushed in front of the kettle. This minimises the need for lifting.

Step 3: Tilt the kettle bowl so that it is vertical.

Step 4: Attach the tool by tapping the lifting handle down to a horizontal position.

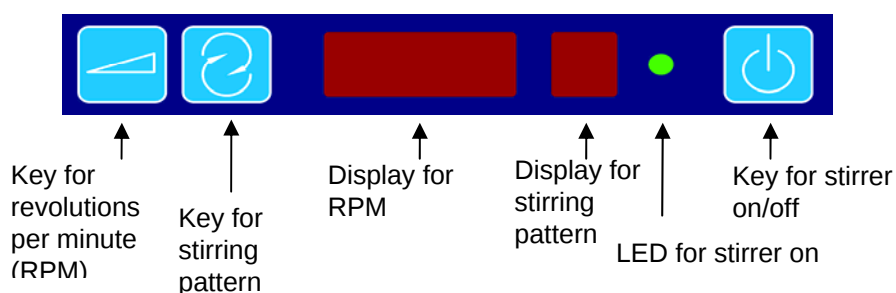
The stirrer is now ready for use.

After use, remove the tool by reversing the above procedure.



Operating the stirrer

The stirrer is controlled using the part of the panel shown in the following illustration.



The displays are generally turned on by pressing , , or . The displays are turned off again after 10 minutes without use.

The required RPM is specified by pressing , so that the display flashes, and setting the value using the arrow keys. The large arrows alter the value by 10 and the small arrows alter the value by 1.

The required stirring pattern is specified by pressing , so that the display flashes, and setting the value using the arrow keys. The large arrows jump to the first or last stirring pattern, and the small arrows jump to the next/previous stirring pattern.

Stirring patterns containing pauses, the length of the pause is depending of the speed of the stirrer. This means that with a high RPM the pause will be short, and with a low RPM the pause will be long. This ensures that the stirring patterns work optimally at all speeds.

For safety reasons, the stirrer accelerates/decelerates at 20 RPM each second.

If the lid is opened, the stirrer will however stop quickly.

The following table shows the stirring patterns and suggested uses. The right-hand column shows the maximum RPM for each stirring pattern. For programmes where this is not specified, the value from the factory setting menu will apply.

If a stirring pattern is selected where the set RPM is not permitted, the RPM will be reduced to the maximum permitted value.

Stirring pattern	Use	Function	Max.
C	Used together with the stirring tool. (The cleaning tool is additional equipment)	Stirring with frequent directional changes.	60
0	Used when connecting/disconnecting the stirring tool.	Small steps in both directions. Operated using the arrow keys.	5
1	Sauces, soup, porridge, etc. with low RPM. Used with high RPM to whip the kettle contents and to make mashed potato, etc light.	Continuous stirring with scraper (clockwise).	-
2	Gravy, cold sauces, etc.	Stirring with directional changes. 10 revolutions clockwise, 2 revolutions pause, 5 revolutions counter clockwise, 2 revolutions pause, etc.	80
3	Mash potatoes, mix sauces, etc.	Stirring with directional changes. 4 revolutions clockwise, ½ revolution pause, 3 revolutions counter clockwise, ½ revolution pause, etc.	30-55a
4	Casserole dishes, etc. which require careful stirring at regular intervals.	Stirring with directional changes. 3 revolutions clockwise, 50 revolutions pause, 3 revolutions counter clockwise, 50 revolutions pause, etc.	80

^a The maximum speed is limited to the range in which the stirrer has greatest power. This depends on the type and size of the kettle.

5	Used when the effect of the scrapers is not wanted.	Continuous stirring without scrapers counter clockwise).	-
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Note: By very slow stirring in heavy content of the kettle, the motor might be overloaded and trips. See error E70.
By stirring heavy material it is recommended to use stirring pattern 2 or 4.

PowerMix

The PowerMix function enables a quick and easy switch to be made to a stirring pattern which mixes the contents of the kettle. This can be used, for example, when thickening or adding other ingredients.

Press  and hold down the key. After one second, the stirring pattern will switch to P.

When the key is released, the stirrer will switch back to the stirring pattern and RPM it had before the key was pressed.

The RPM of the PowerMix function is set in the user menu.

Inspection hatch

The inspection hatch is used to add ingredients to the kettle while the stirrer is rotating.



The inspection cover must be open when it is fitted and closed when the lid is opened, so that it does not fall down.



Closed lid



Open lid

SlowMix (Additional equipment)

The SlowMix function enables the contents of the kettle to be stirred slowly when the kettle is tilted. It can be used, for example, to spread the contents evenly when the kettle is emptied.

Tilt the kettle, press  and hold down the key. After one second, the stirrer will start in stirring pattern 1.

The stirrer will stop when the key is released.

The RPM of the SlowMix function is set in the user menu.

Cleaning using the cleaning tool (Additional equipment)

The cleaning tool can be used to loosen the dirt on the inside of the kettle.

The cleaning tool is fitted in the kettle in the same way as the normal tool. The kettle is filled about one-third full with water mixed with detergent and the stirring tool is started on stirring pattern C.

The removable brushes on the cleaning tool can be cleaned in a dishwasher.

Programs (AutoTemp 51 and 55 only)

General

The Program function is used when the kettle is to carry out a series of processes automatically. This could, for example, be cooking at a given temperature for a given period of time and then keeping the contents warm at a lower temperature.

The word *Pause* in the tables below indicates that the control system is waiting for the next action to be performed. One or more functions can be active in this period.

A program is pre-defined through a series of actions, e.g. program 4 for AutoTemp 51:

- Step 1: Wait until a given time
- Step 2: Add water to the kettle
- Step 3: Set the temperature set point
- Step 4: Turn on the heating
- Step 5: Heat for a given period
- Step 6: Set new temperature

The user must set the relevant parameters to enable the kettle to execute a program. In this example, the following parameters must be set:

- When the process should start
- How much water should be added to the kettle
- What temperature should be set
- Heating time at first given temperature
- Heat temperature thereafter

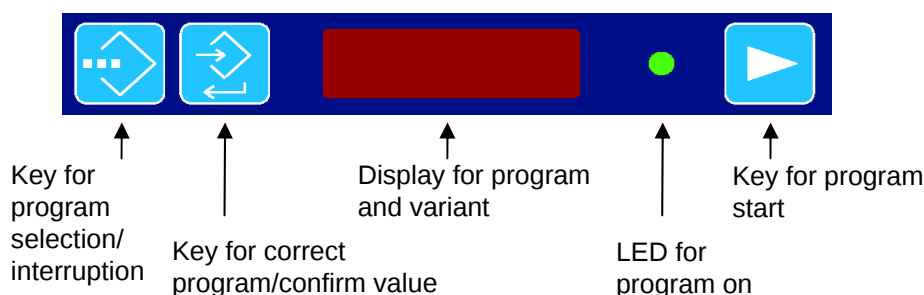
A set of parameters is called a variant of the program and 10 variants can be saved for each program.

The same programs can therefore be executed with different sets of values. For example, variant number 1 could start at 05.00, add 50litres of water to the kettle and heat it to 90 °C, for 12 minutes and thereafter at 80 °C, while variant number 2 could start at 06.00, add 30litres of water to the kettle and heat it to 50 °C for 20 minutes and thereafter at 90 °C.

Program 4 for AutoTemp 51 could be set up in the following table:

Step	Action	Parameter	Variant 1	Variant 2
1	Pause for the required time	P01.1 Time	05.00	06.00
2	Add water in required quantity	P02.1 Water quantity	50	30
3	Set temperature set point	P03.1 Temperature	90	50
4	Switch on heating			
5	Pause for the required time	P05.1 Time	12	20
6	Set new temperature	P06.1 Temperature	80	90

Programs are controlled using the part of the panel shown in the following illustration. The first two digits in the display show the program and the last two digits show the variant.



Selecting the program and variant

Press  so that the display flashes and select the program using the large arrows and the variant using the small arrows.

Changing the variant

Press  to alter the program and the variant shown in the program display.

The water display now shows that the first parameter is being set. The program display shows the associated value that is being set with the arrow keys.

When the value has been set correctly, the value is confirmed by pressing . The water display then switches to the next parameter. When the value of the last parameter has been confirmed, the new values are saved and the program display flashes '----'.

Example of setting up a program

If program 4 for AutoTemp 51 is to be setup, the procedure would be as follows:

Step	Action	Parameter
1	Pause until the required time	P01.1 Time
2	Add water in required quantity	P02.1 Water quantity
3	Set temperature set point	P03.1 Temperature
4	Switch on heating	
5	Pause for the required time	P05.1 Time
6	Set new temperature set point	P06.1 Temperature

Step 1: Press  so that the program display flashes and select program 4 using the large arrows and the variant using the small arrows.

- Step 2: Press  to alter parameter P01.1. The water display shows P01.1. The time is set in the program display using the arrow keys. Press  when the value has been set.
- Step 3: The water display shows P02.1. The water quantity is set in the program display using the arrow keys. Press  when the value has been set.
- Step 4: The water display shows P03.1. The temperature is set in the program display using the arrow keys. Press  when the value has been set.
- Step 5:** Press  to alter parameter P05.1. The water display shows P05.1. Set time in program display using arrow keys. Press  when value is set.
- Step 6: The water display shows P06.1. Set temperature in program display using arrow keys. Press  when value is set.
- Step 7: The program display flashes '----' and the new values are saved.
- Step 8: Press  to start the program.

Running the program

Press  to start the program and the variant that is shown in the program display. The LED will illuminate while the program is being run.

Press  and hold the key down for three seconds to stop the program. The LED will extinguish when the program is cancelled.

If a program is cancelled, all functions will continue in their current mode. This means that no functions will be activated/deactivated.

When a program is running, it will respond to manual key presses. This has three important consequences:

- The kettle can be used normally whilst the program is running. The user can therefore add water to the kettle or adjust the temperature if desired while the program is running.
- Many aspects of the program execution can be altered. If for example the program switches on the heating and the user then turns it off again by pressing  for the heating, the kettle will not heat its contents. If the next step depends on a particular temperature, the program will not continue to the next step.
- If the given action is impossible, the program will continue. If for example the program is set to start the stirrer but the lid is open,

the stirrer will switch to pause mode and the program will continue.

It is important to be aware of the operation of the kettle when it is running a program, so as not to accidentally cancel an operation.

Generally the program display shows the time.

If  is pressed, the active program and variant will be shown.

If  is pressed, the remaining time for the current program step will be shown. The remaining time can be adjusted using the arrows. If the current program step has no remaining time, '----' will be shown in the program display.

If  is pressed, the active program step will be shown.

Programs for AutoTemp 51

The following tables describe the function of each program and the parameters that must be set.

Program 1

This program stops the heating and activates the beeper when the required time has elapsed.

Step	Action	Parameter
1	Pause for required time	P01.1 Time
2	Turn off heating	
3	Activate beeper	

Program 2

This program stops the heating and activates the beeper when the required time [o'clock] has been reached.

Step	Action	Parameter
1	Pause until set time is reached	P01.1 Time
2	Turn off heating	
3	Activate beeper	

Program 3

This program heats for a specified period of time with a set jacket temperature. The jacket temperature is then altered to another jacket set temperature.

This could be used, for example, for cooking followed by automatic warm-keeping.

Step	Action	Parameter
1	Set the required jacket temperature	P01.1 Jacket temperature

2	Switch on heating	
3	Pause for the required time	P03.1 Time
4	Set the required jacket temperature	P04.1 Jacket temperature

Program 4

This program starts at a set time, adds the required quantity of water to the kettle, heats at a set jacket temperature for a set period of time and then alters the jacket temperature to another set jacket temperature.

This could be used, for example, to automatically start cooking in the morning followed by warm-keeping.

Step	Action	Parameter
1	Pause until the required time	P01.1 Time
2	Add water in required quantity	P02.1 Water quantity
3	Set the required jacket temperature	P03.1 Jacket temperature
4	Switch on heating	
5	Pause for required time	P05.1 Time
6	Set the required jacket temperature	P06.1 Jacket temperature

Program 5

This program heats with a jacket temperature that is increased gradually as the temperature of the cooking probe increases.

When the temperature probe reaches the temperature set point, the kettle heats at a set jacket temperature for the required time.

This could be used, for example, for gentle heating followed by warm-keeping at a set temperature for a set period of time.

The parameters P03.1 and P03.2 determine by how much the jacket temperature should exceed the cooking probe temperature. By setting these two values differently, the user can specify whether the heating should be gentlest during the initial phase or at the end.

Step	Action	Parameter
1	Set the required cooking probe temperature	P01.1 Cooking probe temperature
2	Switch on heating	
3	Set the temperature set point difference between the jacket and the probe at 0 °C and the required cooking probe temperature respectively.	P03.1 Difference in temperature at 0 °C P03.2 Difference in temperature at the required cooking probe temperature
4	Set the required jacket temperature	P04.1 Jacket temperature

5	Pause for required time	P05.1 Time
6	Turn off heating	
7	Activate beeper	

Program 6

This program heats at a fixed jacket temperature until the cooking probe reaches the temperature set point. The kettle then heats at a second set jacket temperature for the required period of time. This could be used, for example, to heat the contents of the kettle fairly gently and then to keep them at the temperature set point for a period of time.

Step	Action	Parameter
1	Set the required jacket temperature	P01.1 Jacket temperature
2	Switch on heating	
3	Set the required cooking probe temperature	P03.1 Cooking probe temperature
4	Pause until the probe temperature has been reached	
5	Set the required jacket temperature	P05.1 Jacket temperature
6	Pause for required time	P06.1 Time
7	Turn off heating	
8	Activate beeper	

Programs for AutoTemp 55

The following tables describe the function of each program and the parameters that must be set.

Program 1

This program stops the heating and stirrer and activates the beeper when the required time has elapsed.

Step	Action	Parameter
1	Pause for required time	P01.1 Time
2	Turn off heating	
3	Switch off the stirrer	
4	Activate beeper	

Program 2

This program stops the heating and stirrer and activates the beeper when the required time has been reached.

Step	Action	Parameter
1	Pause until set time is reached	P01.1 Time

2	Turn off heating	
3	Switch off the stirrer	
4	Activate beeper	

Program 3

This program starts the heating and stirrer. After the required period of time, the temperature set point, heating power, stirring pattern and RPM are altered.

This could be used, for example, for cooking followed by warm-keeping.

Step	Action	Parameter
1	Switch to heating mode	
2	Set the set point for food temperature and heating power	P02.1 Food temperature P02.2 Heating power
3	Switch on heating	
4	Set stirring pattern and stirring RPM Switch on the stirrer	P04.1 Stirring pattern P04.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
5	Pause for required time	P05.1 Time
6	Set the new set point for food temperature and heating power	P06.1 Food temperature P06.2 Heating power
7	Set stirring pattern and stirring RPM Switch on the stirrer	P07.1 Stirring pattern P07.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.

Program 4

This program adds water to the kettle and starts the heating and stirrer at a set time. After the required period of time, the temperature set point, heating power, stirring pattern and RPM are altered.

This could be used, for example, to automatically start cooking followed by warm-keeping.

Step	Action	Parameter
1	Switch to heating mode	
2	Pause until the required time	P02.1 Time
3	Add water in required quantity	P03.1 Water quantity
4	Set the set point for food temperature and heating power	P04.1 Food temperature P04.2 Heating power
5	Switch on heating	
6	Set stirring pattern and stirring RPM Switch on the stirrer	P06.1 Stirring pattern P06.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.

7	Pause for required time	P07.1 Time
8	Set the set point for food temperature and heating power	P08.1 Food temperature P08.2 Heating power
9	Adjust new stirring pattern and stirring RPM Switch on the stirrer	P09.1 Stirring pattern P09.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.

Program 5

The program stirs the contents of the kettle for a set period of time. The kettle then stirs at a second RPM setting and stirring pattern for a set period of time. The stirrer is then stopped and the beeper activated.

This program could be used, for example, to stir desserts, etc., where the stirring rate or pattern needs to be altered during the process.

Step	Action	Parameter
1	Set stirring pattern and stirring RPM Switch on the stirrer	P01.1 Stirring pattern P01.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
2	Pause for required time	P02.1 Time
3	Set stirring pattern and stirring RPM Switch on the stirrer	P03.1 Stirring pattern P03.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
4	Pause for required time	P04.1 Time
5	Switch off the stirrer	
6	Activate beeper	

Program 6 (Only with the additional equipment for chilling)

The program chills and stirs the contents of the kettle for a set period of time. The chilling and stirrer is then stopped and the beeper activated.

This could be used to chill and stir a pre-prepared meal.

Step	Action	Parameter
1	Switch to chilling mode	
2	Set the set point for food temperature and chilling power	P02.1 Food temperature P02.2 Chilling power
3	Switch on chilling	
4	Set stirring pattern and stirring RPM Switch on the stirrer	P04.1 Stirring pattern P04.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
5	Pause for required time	P05.1 Time
6	Switch off chilling	

7	Switch off the stirrer	
8	Activate beeper	

Program 7 (Only with the additional equipment for chilling)

The program chills and stirs the contents of the kettle until a set food temperature has been reached. The chilling and stirrer is then stopped and the beeper activated.

This could be used to chill and stir a pre-prepared meal.

Step	Action	Parameter
1	Switch to chilling mode	
2	Set the set point for food temperature and chilling power	P02.1 Food temperature P02.2 Chilling power
3	Switch on chilling	
4	Set stirring pattern and stirring RPM Switch on the stirrer	P04.1 Stirring pattern P04.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
5	Pause until the set point for food temperature has been reached	
6	Switch off chilling	
7	Switch off the stirrer	
8	Activate beeper	

Program 8 (Only with the additional equipment for chilling)

This program starts the heating function and stirrer. After the required period of time, the temperature set point, heating power, stirring pattern and RPM are altered. After a period of time, chilling to a temperature set point is started. When this temperature has been reached, the chilling function and the stirrer are stopped and the beeper is activated.

This could be used, for example, for cooking followed by warm-keeping and chilling.

Step	Action	Parameter
1	Switch to heating mode	
2	Set the set point for food temperature and heating power	P02.1 Food temperature P02.2 Heating power
3	Switch on heating	
4	Set stirring pattern and stirring RPM Switch on the stirrer	P04.1 Stirring pattern P04.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
5	Pause for required time	P05.1 Time
6	Set the set point for food temperature and heating power	P06.1 Food temperature P06.2 Heating power

7	Set new stirring pattern and stirring RPM Switch on the stirrer	P07.1 Stirring pattern P07.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
8	Pause for required time	P08.1 Time
9	Switch to chilling mode	
10	Set the set point for food temperature and chilling power	P10.1 Food temperature P10.2 Chilling power
11	Switch on chilling	
12	Set new stirring pattern and stirring RPM Switch on the stirrer	P12.1 Stirring pattern P12.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
13	Pause until the set point for food temperature has been reached	
14	Switch off chilling	
15	Switch off the stirrer	
16	Activate beeper	

Program 9 (Only with the additional equipment for chilling)

This program adds water to the kettle and starts the heating function and stirrer at a set time. After the required period of time, the temperature set point, heating power, stirring pattern and RPM are altered. After a period of time, chilling to a temperature set point is started. When this temperature has been reached, the chilling function and the stirrer are stopped and the beeper is activated. This program could be used, for example, to automatically start cooking followed by warm-keeping and chilling.

Step	Action	Parameter
1	Switch to heating mode	
2	Pause until the required time	P02.1 Time
3	Add water in required quantity	P03.1 Water quantity
4	Set the set point for food temperature and heating power	P04.1 Food temperature P04.2 Heating power
5	Switch on heating	
6	Set stirring pattern and stirring RPM Switch on the stirrer	P06.1 Stirring pattern P06.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
7	Pause for required time	P07.1 Time
8	Set the set point for food temperature and heating power	P08.1 Food temperature P08.2 Heating power
9	Set stirring pattern and stirring RPM Switch on the stirrer	P09.1 Stirring pattern P09.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.

10	Pausefor required time	P10.1 Time
11	Switch to chilling mode	
12	Set the set point for food temperature and chilling power	P12.1 Food temperature P12.2 Chilling power
13	Switch on chilling	
14	Set stirring pattern and stirring RPM Switch on the stirrer	P14.1 Stirring pattern P14.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
15	Pause until the set point for food temperature has been reached	
16	Switch off chilling	
17	Switch off the stirrer	
18	Activate beeper	

Program 10 (Only with the additional equipment for chilling)

This program chills the contents of the kettle and switches to heating after a set period of time. After the required period of time, the temperature set point, heating power, stirring pattern and RPM are altered. After a period of time, chilling to a temperature set point is started. When this temperature has been reached, the chilling function and the stirrer are stopped and the beeper is activated. This can be used to keep the contents of the kettle cold, automatic cooking with subsequent warm keeping followed by chilling.

Step	Action	Parameter
1	Switch to chilling mode	
2	Set the set point for food temperature and chilling power	P02.1 Food temperature P02.2 Chilling power
3	Switch on chilling	
4	Set stirring pattern and stirring RPM Switch on the stirrer	P04.1 Stirring pattern P04.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
5	Pausefor required time	P05.1 Time
6	Switch to heating mode	
7	Set the set point for food temperature and heating power	P07.1 Food temperature P07.2 Heating power
8	Switch on heating	
9	Set stirring pattern and stirring RPM Switch on the stirrer	P09.1 Stirring pattern P09.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
10	Pause for required time	P10.1 Time
11	Set the set point for food temperature and heating power	P11.1 Food temperature P11.2 Heating power
12	Set stirring pattern and stirring	P12.1 Stirring pattern

	RPM Switch on the stirrer	P12.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
13	Pause for required time	P13.1 Time
14	Switch to chilling mode	
15	Set the set point for food temperature and chilling power	P15.1 Food temperature P15.2 Chilling power
16	Switch on chilling	
17	Set stirring pattern and stirring RPM Switch on the stirrer	P17.1 Stirring pattern P17.2 Stirring rate If stirring pattern 0 is selected, this step will be skipped.
18	Pause until the set point for food temperature has been reached	
19	Switch off chilling	
20	Switch off the stirrer	
21	Activate beeper	

Additional equipment

⚠ Additional equipment can become hot when in use. Always wear gloves when operating/handling.

Sieve plate

The sieve plate is used for straining liquids from solids in the kettle. The sieve plate is placed in the pouring lip of the kettle and the kettle is then tilted.



⚠ Keep clear of the front of the kettle when it is being tilted, as hot liquids can splash as they are poured from the kettle.

- ⚠ It is important that the sieve plate is in contact with the pouring lip throughout its entire length and that the correct size of plate is used.**

Pouring plate

The pouring plate is used when more controlled emptying is required, i.e. when pouring into small containers.

The pouring plate is placed into the pouring lip and the kettle is tilted.



- ⚠ Keep clear of the front of the kettle when it is being tilted, as hot liquids can splash as they are poured from the kettle.**
- ⚠ It is important that the sieve plate is in contact with the pouring lip throughout its entire length and that the correct size of plate is used.**

Cooking basket

Cooking baskets are to be used, when you want to lift the food out of the kettle. The handles coming along with the basket are hooked on to the basket and the basket is lifted out of the kettle. According to the size of the kettle the baskets can be divided in more layers and possible in halves and quarters.



⚠ Do not fill to much into the cooking basket or use lifting equipment to avoid heavy lifting and back injuries.

⚠ Measuring rod

The measuring rod is used to measure the volume in the kettle.

⚠ The measuring rod must not be used together with the stirrer.

Output for temperature logging

This function enables the food temperature to be saved electronically. The temperature is measured on the steel jacket immediately on the other side of the food. The sensor is insulated from other direct heat/cold sources.

Note: To ensure an even temperature distribution in the food, it is important to stir the food well.

Note: When chilling, depending on the contents of the kettle and stirring there may be a difference between the temperature that is measured and the actual temperature of the food.

It is therefore important to check the temperature of the food with another temperature measurement directly in the food.

Note: Jøni Foodline has installed a sensor in the kettle. End-users must install monitoring and data logging equipment as required.

Drain cock/Butterfly valve

This function enables the kettle to be emptied using a cock/valve. To empty the kettle completely, it must be tilted slightly.

⚠ Check that the cock/valve and any other connections such as pumps/hoses are attached correctly before operating the handle.

⚠ Open the cock/valve slowly and treat the hot contents of the kettle with care.

⚠ Note that there may be food in the cock/valve which has not been prepared in the same way as the rest of the kettle's contents.

Spray gun

The spray gun is used to clean the kettle.

⚠ Water from the spray gun must not be used for food preparation.

⚠ Always close the mixing tap after using the spray gun.

Trolley for additional equipment

The trolley is used to store equipment such as: Mixing tool, cleaning tool, sieve plate pouring plate, which can hang on the pegs of the trolley.



User menu and factory settings menu

The kettle's control system depends on a number of parameters which must be set correctly in order for the kettle to work. These parameters are set in the user menu and the factory settings menu. Only the parameters that are relevant to the control of the kettle will be shown.

As the parameters in the factory settings menu have an effect on parameters in the user menu, changes must first be made in the factory settings menu.

In 'Factory data', users can view the parameters that are set at the factory. Before changing any parameters, you must be certain that you understand the consequences. If you are unsure, contact your service dealer for more information.

Factory settings menu

This group of parameters is set at the factory, so that the settings are appropriate for the kettle's configuration. Furthermore parameters of a more technical kind can be found which normally do not need to be set.

These parameters will only need to be set in special circumstances such as when a printed circuit board needs to be replaced.

The factory setting menu is activated by switching off the kettle by pressing  and then pressing  and  simultaneously and holding them down for 10 seconds.  and  must then be pressed simultaneously within three seconds.

With the AutoTemp 31, 35, 51 and 55 controllers, the current menu item is shown in the temperature display, while the water display shows the current value. The value is set using the arrow keys and saved by pressing water-.

With the AutoTemp 11 and 15 controllers, the current menu item and the associated value are shown alternately in the temperature display. The value is set using the arrow keys and saved by pressing heating-.

When a value has been saved, the next menu item will appear.

The factory settings menu is exited when the last parameter has been saved and the display shows '---'.

The factory settings menu will be cancelled if the user presses  or if no key is pressed for two minutes.

Item	Description	Selection
00.0	Shows program	
00.1	Shows program version	
51.0	Select whether the units are to be altered	0 = No 1 = Yes Select 1 if 51.1 and 51.2 are to be shown.
51.1	Select temperature unit	1 = Celsius 2 = Fahrenheit
51.2	Select water quantity unit	1 = Litre 2 = UK Gallon 3 = US Gallon
52.0	Select kettle volume	20-600.
53.0	Select heating type	1 = Heated by electricity 2 = Heated by direct steam
53.1	Select whether the kettle has a closed system	0 = No 1 = Yes
54.0	Select the maximum permissible jacket temperature	1 – 120 °Celsius 33 - 248° Fahrenheit
55.0	Select whether a cooking probe has been fitted	0 = No 1 = Yes
56.0	Select lid type	0 = separate lid/hinged lid without switch 1 = Hinged lid with switch
60.1	Select safety factor for maximum opening time of solenoid valve	2.0 - 5.0 1.0 corresponds to 12 litres/minute through the valve.
60.2	Select whether a water flow meter has been fitted	0 = No 1 = Yes
70.0	Select the method for tilting the kettle	0 = No tilt 1 = Electric tilt (actuator) 2 = Hydraulic tilt
80.0	Select whether temperature corrections are to be altered	0 = No 1 = Yes Select 1 if 80.1 - 80.6 are to be shown.
80.1	Select correction for jacket temperature at 10° Celsius/50° Fahrenheit	Celsius: -5.0 - +5.0 Fahrenheit: -9.0 - +9.0
80.2	Select correction for jacket temperature at 100° Celsius/212° Fahrenheit	Celsius: -5.0 - +5.0 Fahrenheit: -9.0 - +9.0
80.3	Select correction for cooking probe temperature at 10° Celsius/50° Fahrenheit	Celsius: -5.0 - +5.0 Fahrenheit: -9.0 - +9.0
80.4	Select correction for cooking probe temperature at 100° Celsius/212° Fahrenheit	Celsius: -5.0 - +5.0 Fahrenheit: -9.0 - +9.0
80.5	Select correction for food	Celsius: -5.0 - +5.0

	temperature at 10° Celsius/50° Fahrenheit	Fahrenheit: -9.0 - +9.0
80.6	Select correction for food temperature at 100° Celsius/212° Fahrenheit	Celsius: -5.0 - +5.0 Fahrenheit: -9.0 - +9.0
85.0	Select chilling type	0 = No chilling/manual chilling 1 = Automatic chilling without recirculation of water 2 = Automatic chilling with recirculation of coolant.
90.1	Select stirrer gearing factor (1:X)	10.0 - 50.0 This parameter must have the value specified in 'Factory data'.
90.2	Select the maximum RPM for the stirrer	50-155 RPM. This parameter must not be set higher than specified in 'Factory data'.
91.0	Select whether the kettle is fitted with SlowMix (stirring with tilted kettle)	0 = No 1 = Yes

User menu

The user can set this group of parameters to optimise the operation of the kettle to suit his or her needs.

The user menu is activated by switching off the kettle by pressing  and then pressing  and  simultaneously and holding them down for 5 seconds.

With the AutoTemp 31, 35, 51 and 55 controllers, the current menu item is shown in the temperature display, while the water display shows the current value. The value is set using the arrow keys and saved by pressing water-.

With the AutoTemp 11 and 15 controllers, the current menu item and the associated value are shown alternately in the temperature display. The value is set using the arrow keys and saved by pressing heating-.

When a value has been saved, the next menu item will appear.

The user menu is exited when the last parameter has been saved and the display shows '---'.

The user menu will be cancelled if the user presses  or if no key is pressed for two minutes.

Item	Description	Selection
00.0	Shows software	
00.1	Shows software version	
1.0	Should the access code function	0 = Inactive

	be active?	1 = Active
1.1	Select access code	0000-9999 This item is only shown if 1.0 = 1
2.1	Select return tilt time	0.0 - 3.0 seconds. 0.0 = Off
2.2	Select the delay before return tilt is activated	0.0 - 3.0 seconds This item is only shown if 2.1 is set to be greater than 0.0
3.1	Is water filling permitted with the kettle tilted?	0 = No 1 = Yes
3.2	Is water filling permitted with a closed lid?	0 = No 1 = Yes
4.0	Specify method used to control water quantity. Only relevant when factory settings menu item 60.2 = 0.	1 = Estimated water quantity 2 = Time
4.1	Specify the conversion factor from quantity of water to minutes. Only relevant when user menu item 4.0 = 1.	1.0 – 999.9 units, e.g. litre/minute. Adjust until the water quantity is appropriate.
4.2	Select the number of impulses from the water flow meter per litre. Only relevant when factory settings menu item 60.2 = 1.	0.1 - 999.9 Adjust until the quantity is appropriate. See the formula for calculating a new constant in the service instructions.
4.3	Specify the factor for the number of impulses from the water flow meter selected in the user menu, item 4.2	1.0 - 100.0
5.0	Select the rinsing time for closed chilling	0 - 180 minutes, 0 = Off
5.1	Select the chilling power for water-saving chilling	1-9 When this value is set to 9, the water quantity will not be reduced.
6.1	Select the RPM for PowerMixing	5-80 RPM.
6.2	Select the RPM for SlowMix Only relevant if factory settings menu item 91.0 = 1.	5-20 RPM.
7.0	Select the type of acoustic signal	0 = No signal 1 = Beeper sounds periodically 2 = Relay is activated continuously 3 = Beeper sounds periodically and relay is activated continually. Should only be

		altered if an external beeper is fitted.
8.0	Specify whether programs are to be written to the internal memory. This must be performed when commissioning new controllers. The programs will then be generated and all variants will be set to their default values. Make sure that all items in the factory settings menu are set correctly before this item is carried out.	0 = No 1 = Yes

Setting the clock

Press  and  (AutoTemp 51 and 55) or  and  (AutoTemp 31 and 35) simultaneously and hold them down. After five seconds the display will start to flash and the LED will flash rapidly. You can now set the clock using the arrow keys.

The function will be exited automatically after five seconds without a key press or if another function is selected.

Error codes

The system continually monitors many parameters in order to protect both the machine and the user. If the system detects an error condition, an error code will be shown. If there are several simultaneous errors, the error codes will be shown alternately.

The 'Service Instructions' folder contains more information on troubleshooting the device.

-  **Servicing must only be carried out by qualified technicians.**
-  **Before servicing or repairs are carried out, the electrical supply for the kettle must be isolated by the power on/off switch and locked with a padlock if necessary.**

User messages

If the user attempts to perform an action which is not permitted, an error code will be shown and the LED will flash slowly. The error code will generally disappear by itself when the error condition ceases, i.e. the lid is opened or the key is released.

Error code	Description
U01	Incorrect access code entered
U10	The heating cannot be switched on, as the kettle is tilted.
U11	The chilling cannot be switched on, as the kettle is tilted.
U12	Water filling is not permitted, as the kettle is tilted.
U13	Testing of safety pressure switch and safety valve is in pause mode, as the kettle is tilted.
U14	The stirrer cannot be switched on, as the kettle is tilted.
U20	Water filling is not permitted, as the lid is closed.
U21	The kettle cannot be tilted, as the lid is closed.
U22	The stirrer cannot be switched on, as the lid is open.
U23	The stirrer cannot be switched on, as the lid is open and the kettle is not tilted. Close the lid and use the stirrer normally or tilt the kettle and use SlowMix.
U30	The kettle cannot tilt, as the motor's duty factor has been exceeded. Wait approx. 30 seconds and tilt again. After 4 minutes, the tilt motor's intermittence will be reset.
U40	Chilling mode cannot be activated, as the kettle is not fitted with the chilling function.
U41	Testing of safety pressure switch and safety valve is not possible, as the kettle is in chilling mode.

U42	The heating function cannot be used until the kettle initialisation has been performed. Wait until the initialisation has been completed.
-----	--

Error messages

If a system error occurs, an error code will be shown and the LED will flash rapidly. The error code will not normally disappear until the controller is switched off and may require a service inspection. Errors in the range E80 – E99 are fatal errors. If such an error occurs, the kettle cannot be switched off using the keypad, but must be switched off at the power switch.

Error code	Description
E50	Food temperature < -10 ⁰ C Check the sensor and ensure that the sensor wires are not short-circuited.
E51	Food temperature > 130 ⁰ C Check the sensor and ensure that the sensor wires are still connected.
E52	Cooking probe temperature < -10 ⁰ C Check the sensor and ensure that the sensor wires are not short-circuited.
E53	Cooking probe temperature > 130 ⁰ C Check the sensor and ensure that the sensor wires are still connected.
E55	Jacket temperature < -10 ⁰ C Check the sensor and ensure that the sensor wires are not short-circuited.
E56	Jacket temperature > 130 ⁰ C Check the sensor and ensure that the sensor wires are still connected.
E57	Steam temperature < -10 ⁰ C Check the sensor and ensure that the sensor wires are not short-circuited.
E58	Steam temperature > 130 ⁰ C Check the sensor and ensure that the sensor wires are still connected.
E60	Safety stop of water filling using water flow meter, as no signals have been received from the water flow meter. Check the water supply and the water flow meter and its electrical connections.
E61	Safety stop of water filling using water flow meter, as the measured water quantity is below the minimum value permitted by the safety factor. Check the water supply and the water flow meter and its electrical connections.
E62	Safety stop of manual water filling without a water flow meter, as the maximum opening time has been exceeded.

E63	Safety stop of continuous water filling, as the maximum opening time has been exceeded.
E70	The stirrer cannot be switched on, as the frequency inverter is giving an error. Wait until the error disappears by itself. This can last 1 to 10 minutes. Wait until the stirrer motor cools if it has been subjected to a heavy load. This will last slightly longer and the power supply to the kettle should be isolated at the supply isolator for about 30 seconds in order to remove the error. Reset all errors on the frequency inverter by disconnecting the power to the kettle at the dis-connector switch. Check the fuse upstream the frequency inverter. Check that the fan in the bottom of the kettle operates when the stirrer is operating.
E75	A key has been pressed for an abnormally long time. The membrane keypad may be defective. Isolate the power to the kettle for 10 seconds and try again.
E90	The level sensor has detected a low water level in the kettle with a closed system. Add more water.
E91	The level sensor has detected a low water level. Filling with water for the maximum permitted time has not produced a normal water level. Check the water supply to the machine and the strainer, solenoid valve, hoses and level sensor.
E95	Error in internal memory. Execute item 8.0 in the user menu.
E96	Software error. Isolate the power to the kettle for 10 seconds and try again.
E97	Software error. Isolate the power to the kettle for 10 seconds and try again.
E98	Software error. Isolate the power to the kettle for 10 seconds and try again.
E99	The safety contactor has been disconnected. This may be due to either the safety temperature limiter or the safety pressure switch has tripped. Reset safety temperature limiter (dry-boiling thermostat). Two types are used. See service manual. Check the pressure by reading the pressure gauge. Isolate the power to the kettle until the pressure drops below 0.7 bar and switch the kettle on again.

Cleaning

Kettle body and pillars

In the following, cleaning detergent from manufacturer Ecolab is recommended, but equivalent products can be used as well.

 **Always use the protection for hands, eyes, etc. recommended by the detergent manufacturer.**

 **Never use detergent containing chlorine as chlorine will corrode the materials.**

 **Never use a high pressure cleaner to clean the kettle.**

For the kettle and separate parts the following cleaning procedure is recommended:

1. Wash the kettle for remnants of food.
2. Apply detergent manually e.g. Ecolab Sopal or lay out foam e.g. Ecolab Sopal.
3. Leave the detergent to work for the recommended time.
4. Wash thoroughly with water.
5. Disinfect the kettle by applying e.g. Ecolab Sirafan.
6. Leave the product to work for the recommended time.
7. Wash thoroughly with water

The kettle must not be flushed directly with a water jet but must first be washed and then rinsed gently if necessary. Do not allow water to enter the appliance.

Parts of stainless steel can be cleaned with a non-abrasive nylon sponge or similar.

Parts of synthetic material such as the lid, electrical operating handles, membrane keypads, etc. must be cleaned with a cloth.

Note: Extreme care must be taken when cleaning the drain cock/valve and the passage in the kettle.

Note: If the kettle is equipped with a rotatable lid (additional equipment), the lid can be placed in three positions, to ease accessibility for the whole surface.

To rotate the lid, open it and pull down the brim.

Any superficial deposits forming on the surface of the steel which cannot be removed using either normal detergents or a non-abrasive nylon sponge can be removed using an abrasive material with a grain size of 400.



**Never use standard steel wool to clean the kettle.
Stainless steel wool should preferably be used.**

Note: The first time the kettle is taken into use and when the kettle has not been used for a longer period of time, it has to be cleaned before used for cooking. The same applies to the below mentioned loose parts.

Note: The kettle must be cleaned after use.

When the kettle is not be used for a longer period of time or to treat the stainless steel a Ecolab Cromol can be used.

Separate parts

Separate parts such as sieve plate, pouring plate, measuring rod, stirrer tool, scrapers, cooking basket and separate lid must be cleaned after use. When using a dishwasher, detergent such as Ecolab Solid Mega can be used.

Note: When cleaning the stirrer tool, ensure that the inside of the tool is also cleaned This can be done using a tube brush.

After cleaning the above mentioned utensils must be stored hygienically correct in an advised place.

Safe disposal of food

Food must be disposed of according to national and local laws and regulations.

Maintenance

The kettle needs careful maintenance for maximum reliability. Essential maintenance which must be carried out by the owner/user of the machine is described below. Failure to follow these instructions will release the manufacturer from any liability.

⚠ During the heating process, a steam pressure is generated inside the jacket and it is therefore important to exercise caution when maintaining the appliance. This can be ensured by following the instructions in this section and by only using suitably trained service technicians for servicing the kettle.

Monthly maintenance

Note: This maintenance can be undertaken by the daily user.

Activating the safety valve

The safety valve must be operated every month to ensure that it is operating correctly and that it has not become jammed as a result of lime scale deposits, etc.

Check that the pressure inside the kettle is zero using the kettle's pressure gauge before opening and closing the safety valve.

⚠ Take care to avoid discharging steam when the safety valve is opened



Closed



Open

Raise handle fully to open. Lower to close.

Annual maintenance

Note: This maintenance must be carried out by skilled technicians.

- Step 1: Check that the appliance is still firmly attached to the floor.
- Step 2: Check that the top of the kettle is horizontal in the normal position.
- Step 3: If the kettle has been fitted with a hinged lid, check that the lid closes correctly.
- Step 4: Check that all electric operating handles, control lamps, etc. are intact.
- Step 5: Check that there are no loose components and that there is no wear or other circumstances which could affect the safety of the kettle.
- Step 6: Check that no water has seeped into the pillars, where it could cause damage. Any water in the bottom of the pillars must be removed.
- Step 7: Check that the gaskets on the front and rear covers are intact.
- Step 8: Check that the seals between the floor and pillars are intact.
- Step 9: Check that the water installations in the kettle's pillars are not leaking.
- Step 10: This does not apply to steam-heated kettles not fitted with the chilling function.
Check that the controllable non-return valve in the water line to the steam generator is working. See the service instructions for further instructions.
- Step 11: Checking dry-boiling thermostat (electrically- heated kettles only).
There are two types of dry-boiling thermostats. They are located at the rear and bottom of the kettle and marked 'Reset'.
Type 1:
Press the rubber membrane and check thermostat reset button is not jammed. Also check that the rubber membrane around the reset button is not damaged.

Type 2:

Unscrew the plastic cap and check for damage and leaks.



Type 1



Type 2

Step 12: As rubber hoses even under the most optimal conditions has a limited lifespan, it is important to check all hoses for cracks, chinks and rivets and blisters, and the conditions of hose clips. To ensure optimum reliability hoses that show signs of the above mentioned flaws must be replaced.

Step 13: Shut off the water and clean the strainers, which are located before the solenoid valves.

IMPORTANT: It may be necessary to clean the strainers more frequently.

Step 14: Remove any sediment/lime scale deposits in the steam generator and level switch chamber.
This is particularly important on kettles with chilling, as the water in the steam generator is often replaced.

Step 15: Check that the pressure gauge reads 0 bar when the kettle is cold.

Step 16: Check that the vacuum valve is working correctly.
Heat an empty kettle until the pressure reaches 0.8 – 1.0 bar. Then switch off the heat and fill the kettle with cold water, so that it is cooled.
The negative pressure can be read on the pressure gauge and must not exceed -0.3 bar.

Step 17: Check that the pressure gauge reads 0.9 - 1.0 bar when the kettle is empty and has been standing at maximum temperature for approximately 5 minutes.

Step 18: On kettles with a stirrer, check that the stirrer stops when the lid is opened.

Step 19: On kettles fitted with a stirrer and the SlowMix option, check the operation of the safety relay as described in the service instructions.

Step 20: Clean/replace air filter on pillars with ventilation. Not all kettles have pillars with ventilation.

Step 21: Check the safety pressure switch and safety valve as follows.

Testing the safety pressure switch and the safety valve

 If national regulations deviate from the following, the national regulations must always be followed. Check with the local Factory inspection for which regulations has to be followed.

Before the kettle is used for the first time and at least annually thereafter, a test must be performed to ensure that the safety pressure switch and the safety valve are working correctly.

A record must be kept of this test. The enclosed 'Inspection Report' can be used for this purpose.

 This test must only be performed by trained personnel with knowledge of the appliance.

 A separate control pressure gauge must be fitted during the test procedure.

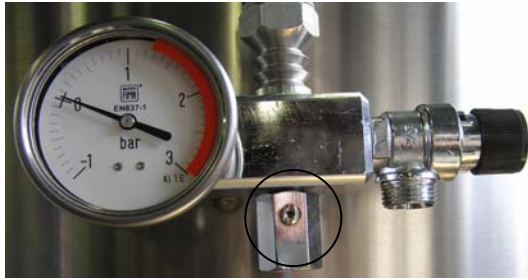
 Take care to avoid discharging steam from the safety valve.

 The pressure inside the kettle must never exceed 1.7 bar. The test must be terminated immediately if the pressure exceeds this value.

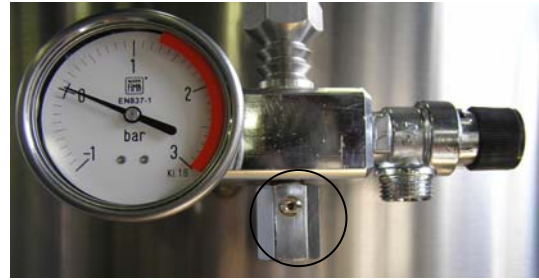
Testing electrically heated kettles

The kettle must be in the vertical position and in heating mode when this test is performed.

Step 1: Install a separate control pressure gauge on the test flange at the rear of the kettle. Open the associated valve. Make sure that the pressure gauge can be observed while the test is being performed.

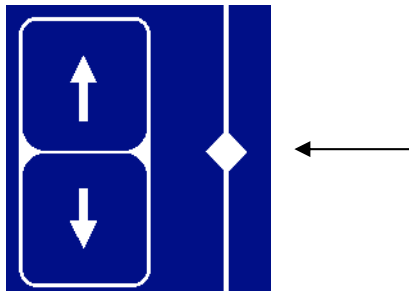


Ball valve open



Ball valve closed

- Step 2: Empty the contents of the kettle and turn the heat to its highest setting. Wait until the pressure in the steam jacket is 0.9 – 1.0 bar.
- Step 3: Press heat function key  (AutoTemp 55) or  key (AutoTemp 11, 15, 31, 35 and 51) and heating on/off key  simultaneously and hold the two keys down throughout the entire process. After 5 seconds, the LED will start to flash rapidly.
Heat will now be supplied to the kettle.
- Step 4: Deactivation of the safety pressure switch is indicated by the temperature flashing in the display. This occurs at approximately 1.2 bar.
- Step 5: Press the hidden key to the right of the arrow keys and also hold this down throughout the rest of the process.



- Step 6: Continue the heating process by holding down all three keys. The safety valve should now activate at around 1.3 bar.
- Step 7: Continue heating and check that the pressure does not exceed 1.43 bar.
- Step 8: Release the hidden key when you are certain that the pressure is no longer rising.
- Step 9: Release the two other keys.

Step 10: Wait for the kettle to cool down. When the safety pressure control activates at approximately 0.8 bar, the safety valve will close. The kettle will then be ready for use again.

Note: If the kettle is switched off before the safety pressure control is engaged error E99 will occur. The procedure is then to switch off the supply to the kettle and wait until the pressure has dropped to below 0.8 bar.

Testing steam-heated kettles

On steam-heated kettles, a check must be performed to ensure that the safety valve and reduction valve on the fixed installation upstream of the kettle is working correctly. The procedure for this test depends on the fixed installation.

A check must also be made to ensure that the safety pressure switch on the kettle is operating correctly. This can only be done by increasing the pressure in the kettle.

Refer also to the regulations for the fixed installation.

Note: The valve on the kettle is an over-pressure valve and must not be considered as a safety valve which **must** be placed in the fixed installation.