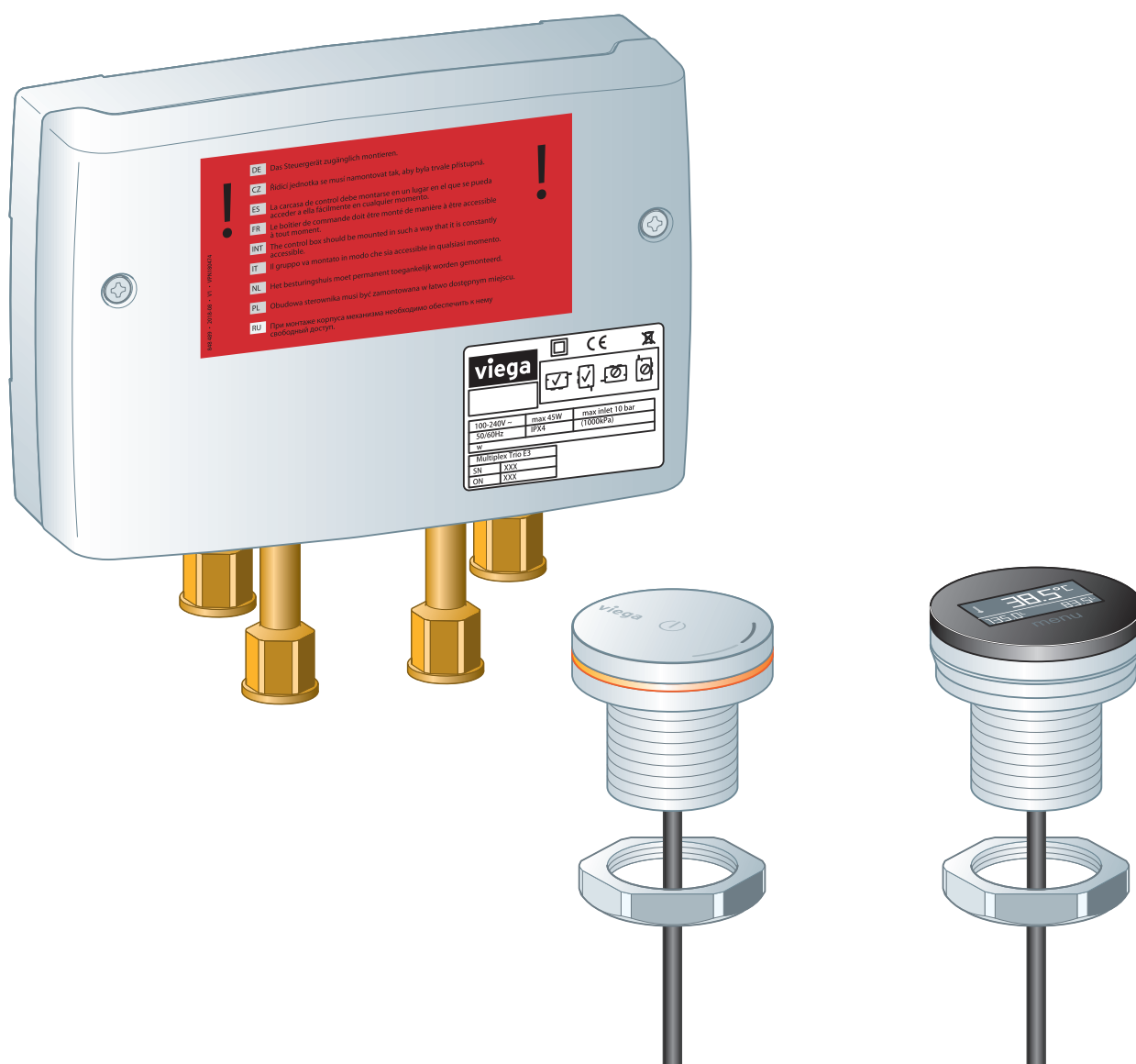


Instructions for Use

Multiplex Trio E3 fitting, electronic mixing unit



for filling a bathtub (electronically controlled), in connection with Multiplex Trio, Multiplex Trio F, Rotaplex Trio or Rotaplex Trio F (optional electric driven)

Model
6146.215

Year built (from)
03/2012

viega

Table of contents

1	About these instructions for use	4
	1.1 Target groups	4
	1.2 Labelling of notes	4
	1.3 About this translated version	5
2	Product information	6
	2.1 Standards and regulations	6
	2.2 Safety advice	7
	2.3 Intended use	8
	2.3.1 Areas of application	8
	2.3.2 Maintenance	8
	2.4 Product description	9
	2.4.1 Overview	9
	2.4.2 Technical data	10
	2.4.3 Functions	11
	2.4.4 Control elements and menus	12
	2.5 Accessories	18
3	Handling	21
	3.1 Assembly information	21
	3.1.1 Mounting conditions	21
	3.1.2 Installation dimensions	23
	3.2 Assembly	23
	3.2.1 Mounting the mixing unit	23
	3.2.2 Mounting the control element	27
	3.2.3 Connecting the electrical drain (optional)	29
	3.3 Control	30
	3.3.1 Factory settings	30
	3.3.2 Setting the water inlet manually	30
	3.3.3 Limiting the water inlet time and temperature	32
	3.3.4 Changing the water inlet	33
	3.3.5 Using personal settings	33
	3.3.6 Electronic operation of the drain	36
	3.3.7 Configuring the menus and control	37
	3.3.8 Cleaning functions	39
	3.3.9 System diagnosis and statistics	41
	3.4 Troubleshooting	43
	3.5 Care and maintenance	45

3.5.1	Care tips	45
3.5.2	Maintenance	46
3.5.3	Changing the filters in the corner valves	46
3.5.4	Replacing the rechargeable battery	47
3.6	Disposal	49

1 About these instructions for use

Trade mark rights exist for this document; for further information, go to viega.com/legal.

1.1 Target groups

The information in this instruction manual is directed at the following groups of people:

- Heating and plumbing experts and trained personnel
- Qualified electricians
- Operators
- Consumers

Individuals without the abovementioned training or qualification are not permitted to mount, install and, if required, maintain this product. This restriction does not extend to possible operating instructions.

The installation of Viega products must take place in accordance with the general rules of engineering and the Viega instructions for use.

1.2 Labelling of notes

Warning and advisory texts are set aside from the remainder of the text and are labelled with the relevant pictographs.



DANGER!

This symbol warns of possible life-threatening injury.



WARNING!

This symbol warns of possible serious injury.



CAUTION!

This symbol warns of possible injury.



NOTICE!

This symbol warns of possible damage to property.



This symbol gives additional information and hints.

1.3 About this translated version

This instruction for use contains important information about the choice of product or system, assembly and commissioning as well as intended use and, if required, maintenance measures. The information about the products, their properties and application technology are based on the current standards in Europe (e.g. EN) and/or in Germany (e.g. DIN/DVGW).

Some passages in the text may refer to technical codes in Europe/Germany. These should serve as recommendations in the absence of corresponding national regulations. The relevant national laws, standards, regulations, directives and other technical provisions take priority over the German/European directives specified in this manual: The information herein is not binding for other countries and regions; as said above, they should be understood as a recommendation.

2 Product information

2.1 Standards and regulations

The following standards and regulations apply to Germany / Europe and are provided as a support feature.

Regulations from section: Application areas

Scope / Notice	Regulations applicable in Germany
Fulfilled requirements in sanitary fittings	EN 1111
Fulfilled requirements in sanitary fittings	EN 15091
Use in potable water installations	DIN 1988
Use in potable water installations	EN 806

Regulations from section: Mounting the mixing unit

Scope / Notice	Regulations applicable in Germany
230-V connection	VDE 0100 Part 701 (IEC 6036-7-701:2006, modified)

Regulations from section: Safety

Scope / Notice	Regulations applicable in Germany
Overflow function	EN 274

Regulations from section: Maintenance

Scope / Notice	Regulations applicable in Germany
Thermal disinfection after 72 hours of non-use	VDI 6023
Thermal disinfection after 7 days	EN 806-5

2.2 Safety advice



DANGER! **Danger due to electrical current**

An electric shock can lead to burns and serious injury and even death.

- Work on the electrical system may only be carried out by trained electricians.
- Switch off the mains voltage before opening the casing.
- Switch off the mains voltage before connecting the mains adapter.



WARNING! **Risk of scalding from hot water**

Excessively hot water can lead to severe scalding, especially in the case of children.

Take the following steps to avoid scalding:

- Do not allow children to play with the control elements unsupervised.
- Disable the temperature safeguard in exceptional cases only.
- Make sure that no one can come into contact with the hot water before carrying out thermal disinfection.



WARNING! **Risk of injury due to control via remote access**

Controlling the equipment via remote access is permissible only if there are no persons standing in the direct operating range.

- The safety shutdown of the supply does not replace the overflow function, see ↪ *'Regulations from section: Safety'* on page 6.
- Before opening the control casing, switch off the mains voltage and take steps to prevent accidental re-activation.
- Lay the cable in the control casing in such a way that it touches nothing.

2.3 Intended use

2.3.1 Areas of application



Potable water heating

Only electronic flowthrough heaters may be used to heat potable water.

Viega recommends the following models:

- Stiebel Eltron DHB-E 18, 21, 24 SL
- Vaillant VED E 24/7
- Flowthrough heaters with comparable features

The product is a mixing fitting for the bathtub with electronic control of water temperature and filling volume. If an electronic drain / overflow fitting is installed, filling and emptying of the bathtub can be regulated using the mixing fitting.

On technical requirements met and the use in potable water installations, see ↗ *'Regulations from section: Application areas'* on page 6.

A drain/overflow, water inlet and a pipe interrupter are required for the complete mounting of the product. Further information on this can be found at ↗ *Chapter 2.5 'Accessories'* on page 18.

2.3.2 Maintenance

Regular maintenance is part of running the system properly ↗ *Chapter 3.5.2 'Maintenance'* on page 46.



Inform the building owner, the operator or end customer of the maintenance obligations.

2.4 Product description

2.4.1 Overview

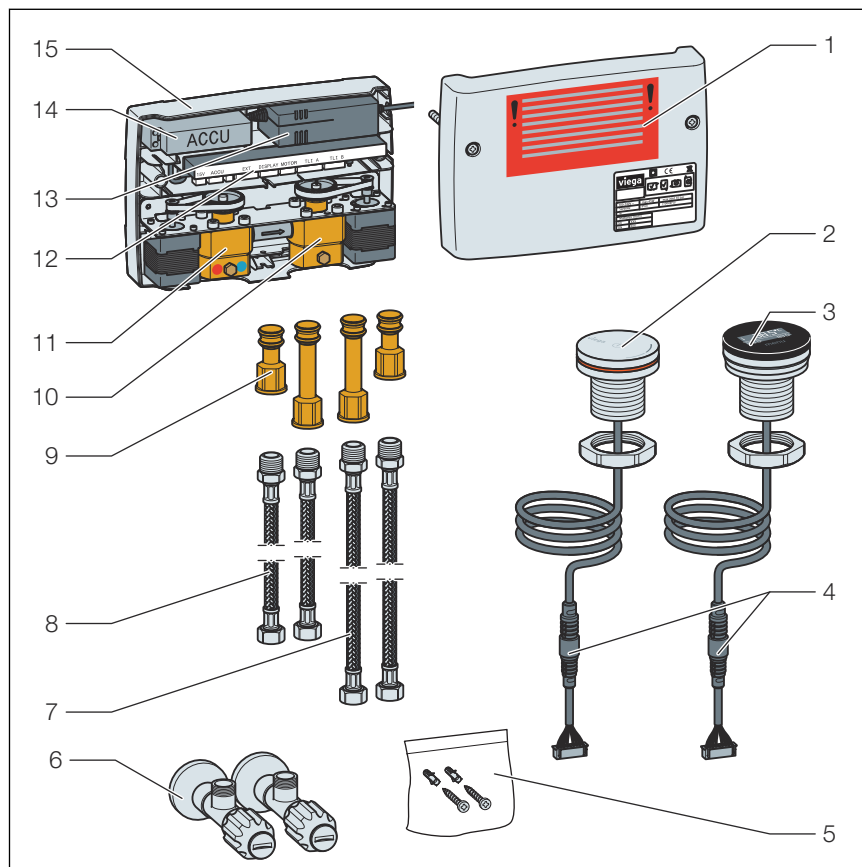


Fig. 1: Components and scope of delivery

- 1 Casing, upper part
- 2 control element with illuminated ring
- 3 Display element
- 4 connection cable with plug connector (extendable as an option)
- 5 Fixing material
- 6 2 corner valves with filter, R $\frac{1}{2}$ x G $\frac{1}{2}$
- 7 Flexible connection hoses R $\frac{1}{2}$ x G $\frac{1}{2}$, (length 520 mm)
- 8 Flexible connection hoses R $\frac{1}{2}$ x G $\frac{1}{2}$, (length 300 mm)
- 9 Connection set for actuator unit
- 10 actuator unit for switching between tub and hand shower
- 11 actuator unit for the hot and cold water mixer
- 12 control with plug contacts for all components
- 13 Mains adapter 230 V, with 3 m connection cable
- 14 battery for emergency operation
- 15 Casing

2.4.2 Technical data

Operating pressure	maximum 1 MPa (10 bar)
Recommended flow pressure	0.1–0.5 MPa (1–5 bar)
Pressure difference between PWC and PWH	maximum 0.1 MPa (1 bar)
Test pressure	1.5 MPa (15 bar) (1.5 times maximum operating pressure)
Dimensions	↪ Chapter 3.1.2 'Installation dimensions' on page 23
Flow capacity	↪ Fig. 2 or ↪ Fig. 3
Warm water temperature	$T_{\max} \leq 60 \text{ °C}$ (from $> 40 \text{ °C}$ upwards, the anti-scalding protection lowers the temperature increase when the control element is turned.) <i>with thermal disinfection:</i> $T_{\max} \leq 85 \text{ °C}$
Power supply	100–240 V AC, 50/60 Hz
Power consumption	Standby operation $< 1 \text{ W}$; $P_{\max} 45 \text{ W}$
Length of the connection cable to the control element	3 m (optionally extendable by another 3 m)
IP Code of electronic mixing unit	IPX4
IP Code of control element	IPX4

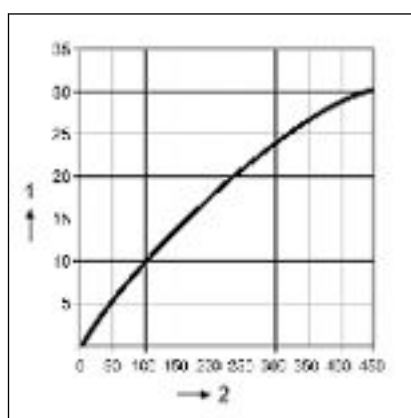


Fig. 2: Rate of flow without accessories (corner valves, filling hose, pipe interrupter)

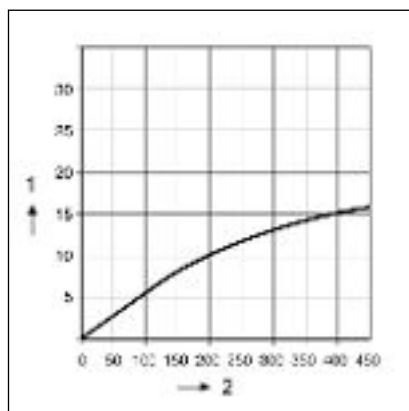


Fig. 3: Rate of flow with accessories (corner valves, filling hose, pipe interrupter)

- 1 - l / min
- 2 - Δp / kPa

2.4.3 Functions

The electronic mixing fitting is intended to fill a bathtub with the individually desired water temperature. For this purpose, the mixing fitting has three memory locations in which the individual preferred settings for water temperature, fill volume, and fill depth of the tub can be saved and used for the next bath.

Basic functions

The electronic mixing fitting has been optimised for controlling electrically operated Viega bathtub drains/overflows. When a manually operated drain and overflow fitting is used, all functions of the mixing fitting can be used, except for the electronic opening and closing of the drain.

The following basic functions at the mixing fitting can be controlled electronically:

- Starting and stopping the water inlet
- Setting the water temperature
- Setting the strength of the water inlet
- Switching between bathtub inlet and hand shower
- Opening and closing the bathtub drain (only with electronically controlled processes; see product portfolio)
- Saving, using, and deleting personal settings

Special functions

Special functions are those functions not required for the daily use of the mixing fitting. Special functions are for example basic settings and maintenance and cleaning functions.

The mixing fitting has the following special functions:

- Limiting the water inlet temperature
- Limiting the water inlet time
- Locking and unlocking extended menu lists

- Diagnosis mode for performing a functionality test
- Performing a thermal disinfection
- Resetting the factory settings
- Select temperature unit °F or °C
- Displaying statistics of various consumption data

Battery emergency operation

The mixing fitting is equipped with a rechargeable battery that supplies power to the mixing fitting in the event of a power failure in order to close the mixing fitting.

The rechargeable battery is immediately recharged after the power supply is restored.

Temperature limitation / scalding protection

The mixing fitting has two functions protecting the user from scalding:

- From a temperature of 40 °C, the temperature setting via the control element is stepped down with factor 1:10. This means that the temperature is increased at a much slower rate so that the user cannot unintentionally set a much higher temperature.

The temperature reduction takes place at the normal rate even if the scalding protection is enabled.

- Via the extended menu list, a maximum water inlet temperature can be specified. To cancel this maximum temperature setting, you must have a key code. A maximum temperature can be set for example to protect children from scalding.

2.4.4 Control elements and menus

Operating status

The electronic mixing fitting differentiates between two operating statuses:

- Operating status [OFF] with water supply **switched off**
- Operating status [ON] with water supply **switched on**

The display element shows various menus depending on the operating mode. In the menus, you can make settings for the mixing unit or activate various functions.

Control element

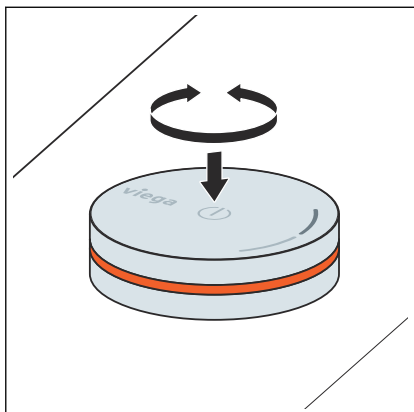


Fig. 4: control element

The control element can be pressed and turned.

Display element

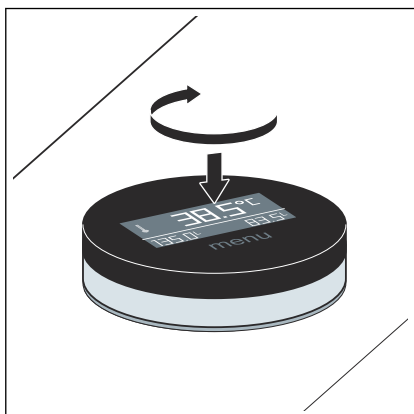
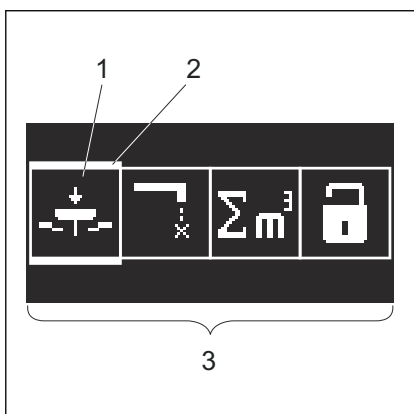


Fig. 5: display element

The display element can be turned so that the user can read it for example while laying in the bathtub. Pressing the display element firmly selects a menu item, for example.

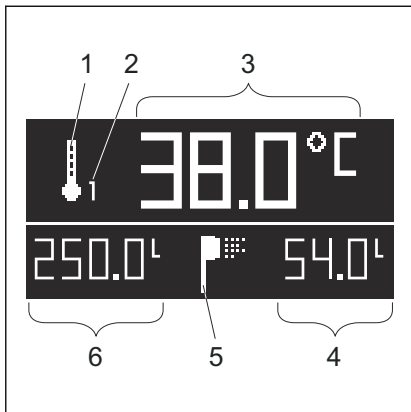
The display element has two different display modes:



- 1 - Function symbol
- 2 - Frame that highlights the selected function
- 3 - Menu bar with function icons

Menu display

This example shows the display element in the operating mode [OFF].



- 1 - Symbol of the active function
- 2 - Active program memory location
- 3 - Target temperature
- 4 - Current fill volume
- 5 - Acknowledge/finding/status symbol
- 6 - Target fill volume according to program memory location

Live display

The live display indicates the current status of the fitting. The example shows the display element in the operating mode [ON]. In this example, the values have the following significance:

When the fitting is in this mode, turn the control element to adjust the water temperature.

For more examples of the live display, see [Chapter 3.3 'Control'](#) on page 30.

Illuminated ring

The illuminated ring of the control element can emit light in different colours. The colour of the illuminated ring shows which setting is being changed, or can be changed by turning the control element:

- Ring lights up turquoise: Movement during menu navigation
- Ring continuously lights up either blue, orange or red: water runs cold (blue ring), warm (orange ring) or hot (red ring).
- Ring flashes either blue, orange or red (in operating mode [ON]): the set water temperature (target temperature) has not been reached yet.
- Ring flashes red five times (in operating status [OFF]): Actual charge of battery below minimum.
- Ring flashes red (in operating status [ON]): Thermal disinfection is running.

Menu structure

The display element shows four different menus, depending on the status of the product. The menus differ in respect of two factors:


- Operating status
- Locking of the extended menu list

For locking or indication of the extended menu, the following two symbols are provided in the menu list in operating status [OFF]:

- locking the extended menu list
- displaying the extended menu list













Operating Menu status	
[ON]	
[OFF]	








The greyed-out symbols are visible in the extended menu list only.

The symbol  is the last item in each menu list. When the symbol is selected, the menu list closes immediately. Otherwise, the menu list closes automatically if the control element remains inactive for five seconds.

Significance of the menu symbols







All menu symbols in these instructions are shown as a black symbol against a white background. The acknowledgment/findings/status symbols, on the contrary, are shown as white symbols against a black background.










Symbol	Meaning
	Water inlet via hand shower.
	Water inlet via bathtub inlet.
	Thickness of water stream
	Saving the settings
	Deleting the settings
	Opening the drain; closing the drain
	Maintenance mode (control element is disabled for 45 seconds)
	Indicating the water consumption
	Limiting the water inlet time
	Limiting the water inlet temperature
	Starting diagnostic mode
	Show statistics

Symbol	Meaning
	Changing the temperature display to degree Fahrenheit or degree Celsius
	Thermal disinfection
	Resetting the fitting to factory settings
	Displaying the extended menu list
	Locking the extended menu list
	Setting a new key code (possible only for 30 minutes after connection to power supply)
	Closing the menu list

Significance of the acknowledgement, findings, and status symbols

In these instructions, all acknowledgement, findings, and status symbols are shown as white symbol against a black background.

Symbol	Meaning
	Findings symbol following diagnosis: no malfunctions
	Findings symbol following diagnosis: flow sensor malfunction
	Findings symbol following diagnosis: temperature sensor malfunction
	Acknowledgement symbol in statistics: total operating hours of the fitting
	Acknowledgement symbol in statistics: number of call-ups of program memory space 1
	Acknowledgement symbol in statistics: number of call-ups of program memory space 2


Symbol	Meaning
	Acknowledgement symbol in statistics: number of call-ups of program memory space 3
	Acknowledgement symbol in statistics: number of thermal disinfections
	Acknowledgement symbol in statistics: number of minutes in battery mode
	Status symbol: Water is supplied according to program memory location 1.
	Status symbol: Water is supplied according to program memory location 2.
	Status symbol: Water is supplied according to program memory location 3.
	Status symbol: Thermal disinfection is running.
	Status symbol: System diagnosis is running.
	Status symbol: Bathtub is filled according to program memory space 1 with a temperature of 40 °C or more (arrow on the left =indicates high inflow temperature).

Structure of the operating instructions

All instructions for operating the mixing fitting are of a uniform structure. Two factors influence the function of the product, and a combination of these factors brings a result. These two factors are the current operating status and the action carried out by the user.

Furthermore, the menu symbol is indicated which symbolises the respective function in the display element.

Example:

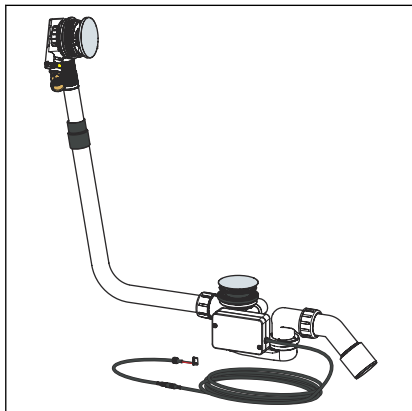
Symbol	
Operating status	[OFF]
Action	Briefly press the control element once.
Result	The water starts to flow. (Automatic stop after max. 99 minutes.)

2.5 Accessories



The accessories shown here are not included in the scope of delivery. If required, it must be purchased separately.

Required accessories

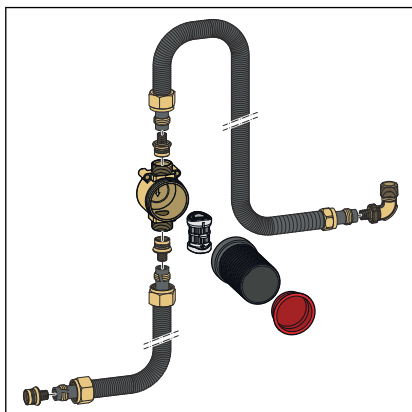


Inlet, drain and overflow

A water inlet and a drain/overflow fitting for the tub are required to be able to install the product completely.

The following four Viega models are optimised for use with an electronic mixing fitting:

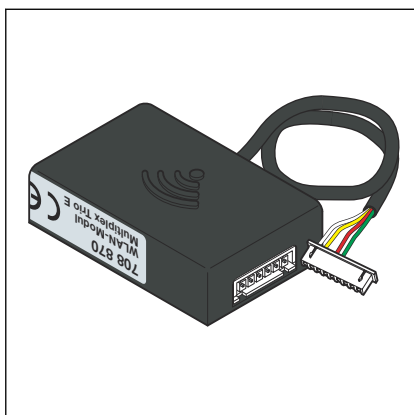
- Multiplex Trio drain / overflow, model 6175.1
- Rotaplex Trio drain / overflow, model 6175.2
- Multiplex Trio F drain / overflow, model 6148.1
- Rotaplex Trio F drain / overflow, model 6148.2



Pipe interrupter

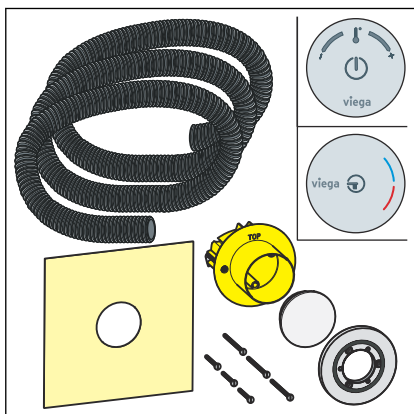
To ensure that no bath water flows back into the potable water installation, a pipe interrupter must be installed, e.g. the connection set with concealed pipe interrupter DN15, model 6161.86. A suitable cover rosette for the pipe interrupter must be purchased separately.

Optional accessories



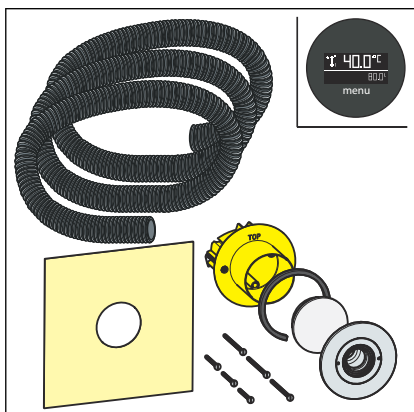
WLAN module

The mixing fitting can be remotely controlled in direct operation with mobile devices (Android, iOS, Windows). For this purpose, you require the Multiplex Trio E WLAN module , model 6146.224.



Extension set for control elements

The extension set model 6146.36 enables installation of a control element on a wall or pre-wall. It contains a concealed socket, an conduit pipe for the connection cable and a fixing set with sealing collar and chrome-plated cover rosette.



Extension set for display element

The extension set model 6146.221 enables installation of a display element on a wall or pre-wall. It contains a concealed socket, an conduit pipe for the connection cable and a fixing set with sealing collar and chrome-plated cover rosette.

**Extension cable**

3 m extension cable for the control element: model 6146.22.

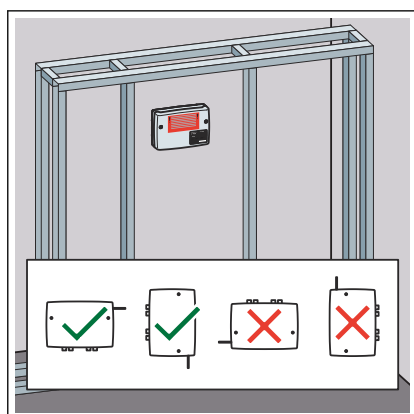
3 m extension cable for the display element: model 6146.222.

3 Handling

3.1 Assembly information

3.1.1 Mounting conditions

Mixing unit

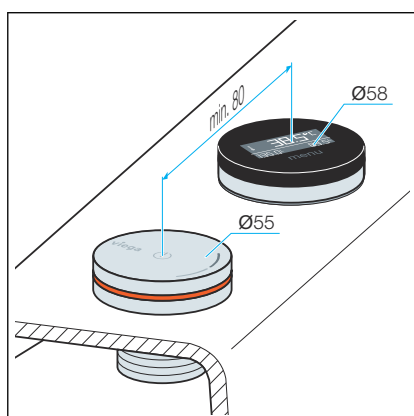


The following requirements exist for the mounting of the mixing unit:

- The mixing unit may only be mounted horizontally or vertically as shown in the illustration.
- The mixing unit must remain accessible for the purpose of maintenance and the top of the casing must be removable.
Mounting can take place in e.g. a side room or in a pre-wall inspection opening.
- A 230 V connection is available as power supply, see [↗ 'Regulations from section: Mounting the mixing unit' on page 6](#).
- The mixing unit must not be so far away from the control or display elements that the connection cable (3 m) is subjected to tensile stress.

The connection cable of the operating or display element can be extended to 6 m if required [↗ Chapter 2.5 'Accessories' on page 18](#).

Control and display elements



The following requirements exist for the mounting of the elements:

- Fixing can take place on an even surface with the dimensions 60 x 60 mm (e.g. in the pre-wall) or on the tub rim.
- When mounting on the tub rim, it must be ensured that the elements are never submerged in water.
Contact with splash water does not present a problem.
- If the elements are to be mounted on the tub rim, Viega recommends having the drill holes made directly by the bathtub manufacturer, if possible.
- A drill hole with a diameter of 38–40 mm is required for fixing the elements.
- There must be clearance of at least 40 mm provided behind or below the mounting area.
- The centres of the drill holes for the elements must be at least 80 mm apart.
- The elements should be easily reachable from both inside and outside the tub.
- The connection cable must be laid free of tensile stress from the installation position of the elements to the mixing unit.

If required, the connection cable can be extended from 3 m to 6 m [↗ Chapter 2.5 'Accessories' on page 18](#).

The following requirements exist for the mounting of the drain / overflow:

- The bathtub is installed.
- The drain pipeline is installed all the way to the bathtub.
- The underside of the bathtub is accessible.

Pipe interrupter

To ensure that no bath water flows back into the potable water installation, a pipe interrupter must be installed in the pipeline between the mixing unit and the bathtub inlet.

The following schematic diagram shows what this should look like:

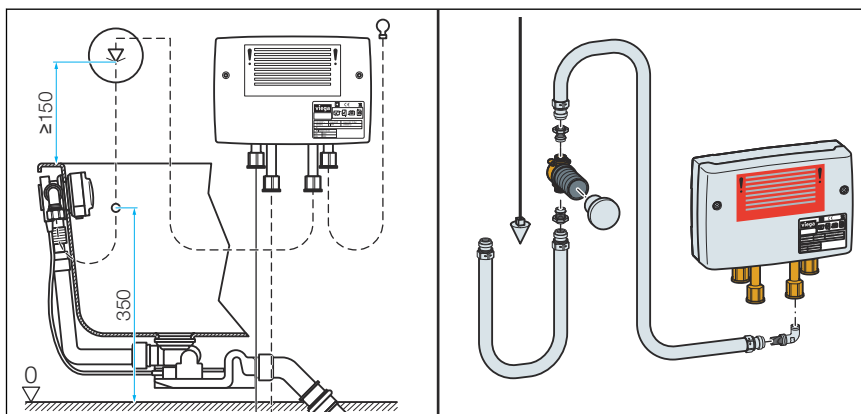


Fig. 6: Mounting scheme with pipe interrupter

It is important that the pipe interrupter is mounted vertically, in the direction of flow and at least 150 mm above the upper edge of the bathtub.



The hand shower must also be protected against bath water flowing back. If no protection is already integrated into the hand shower being used, it may be necessary to install an additional pipe interrupter.

Observe the local standards and regulations.

The pipe interrupter is not included in the scope of delivery and must be ordered separately. Observe the instructions for use of the pipe interrupter.

3.1.2 Installation dimensions

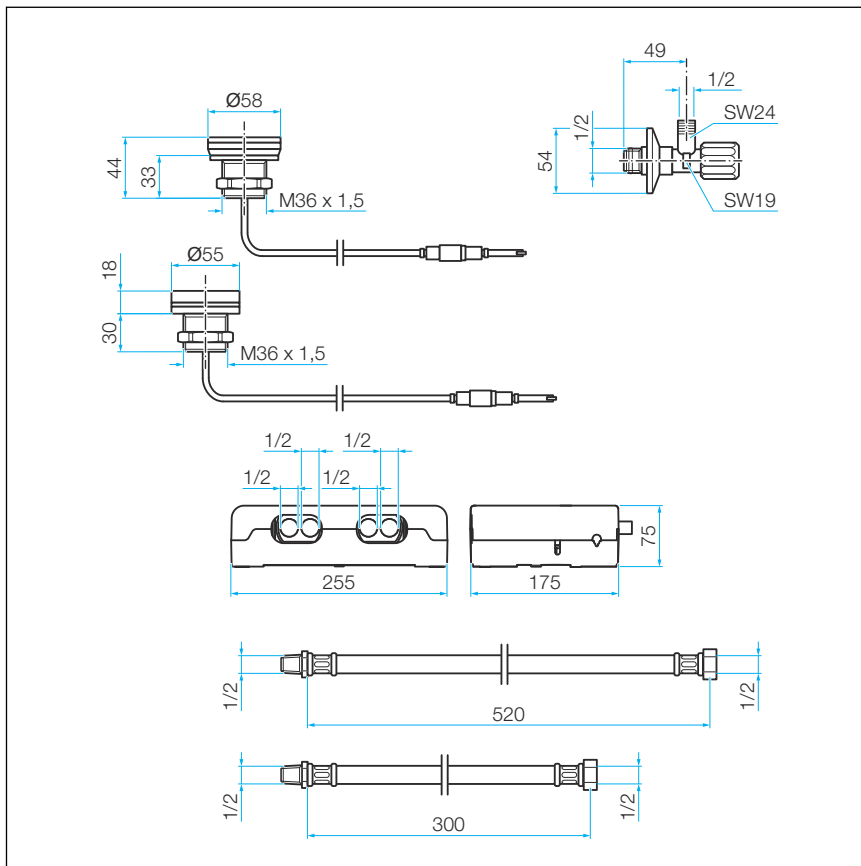


Fig. 7: Dimensions

3.2 Assembly

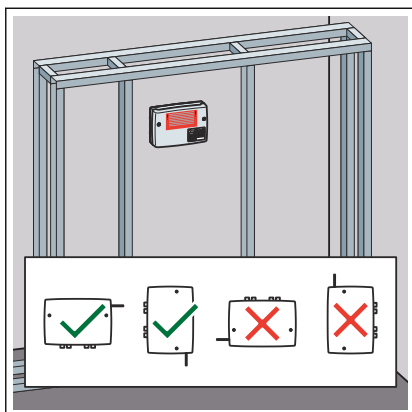
3.2.1 Mounting the mixing unit



DANGER! **Danger due to electrical current**

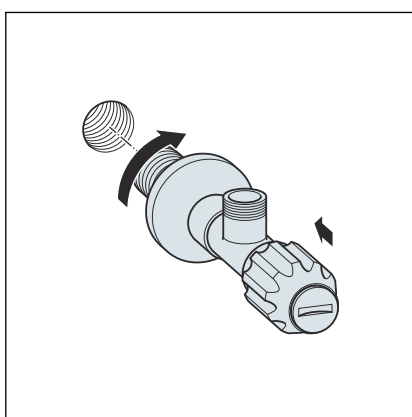
An electric shock can lead to burns and serious injury and even death.

- Only allow electrical work to be carried out by qualified electricians.
- Always de-energise the connection cable before work is commenced.

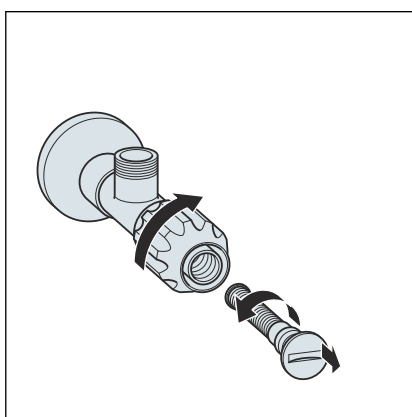

Requirements:

- The installation location is permanently accessible even after mounting, and the casing cover can be removed (e.g. through an inspection opening).
- The installation location is situated in such a way that the installation location of the control elements can be reached with a cable of 3 m length (6 m with extension).
- A 230 V connection is available as power supply, see ⚡ *'Regulations from section: Mounting the mixing unit' on page 6.*
- The mixing unit can be mounted with the connections facing either down or to the left. Other mounting positions or mounting at an angle impair the functionality of the mixing unit.

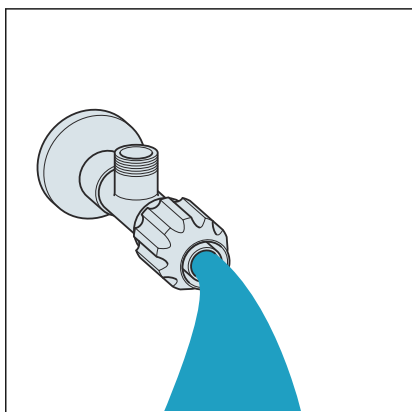
- Mount the corner valves to the hot and cold water installations.

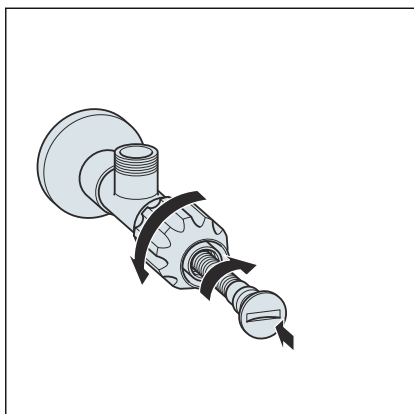


- Unscrew the filter in an anti-clockwise direction.
- Remove the filter.

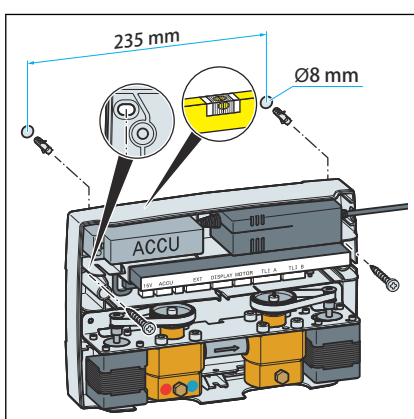


- Open the water inlet for a few seconds to flush the pipe.





► Screw the filter into the corner valve.

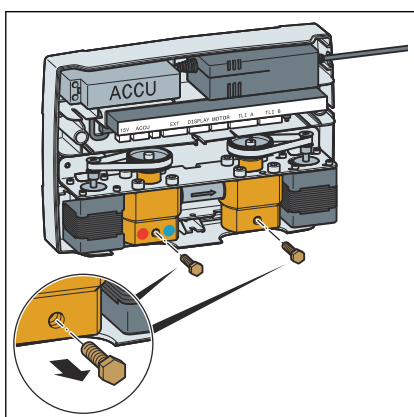


► Set the 8 mm dowels according to the specified dimensions.

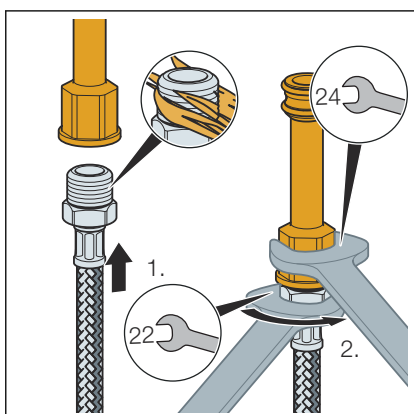
Distance: 235 mm
Drill hole depth: 65 mm

Use a spirit level for horizontal and vertical alignment.

► Screw on the mixing unit.

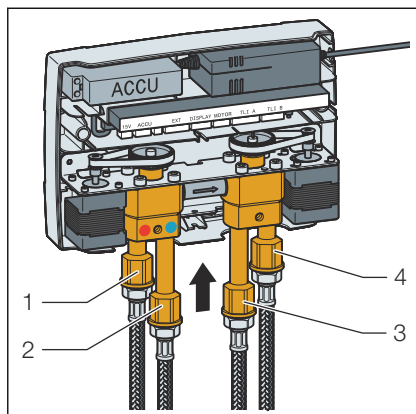


► Unscrew the safety screws.



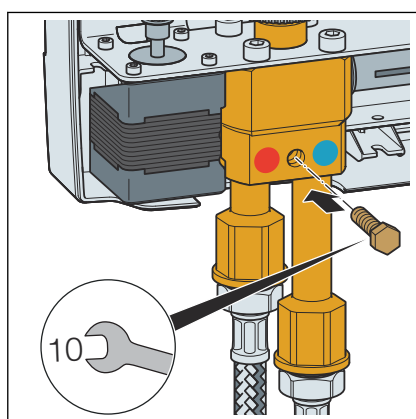
► Seal the hoses.

► Screw the hoses onto the connecting pieces.

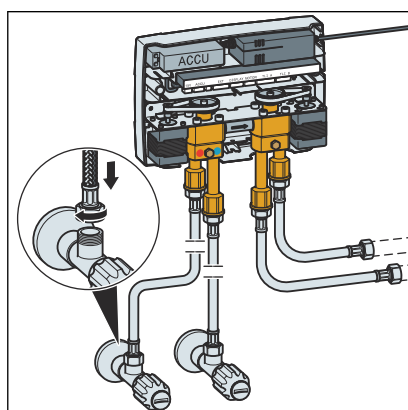


► Attach the connecting pieces with the flexible hoses in the inputs and outputs of the mixing unit.

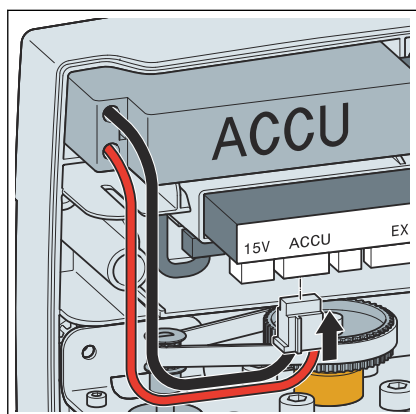
- 1 = Hot potable water connection
- 2 = Cold potable water connection
- 3 = Bathtub connection
- 4 = Hand shower connection



► Tighten the safety screws.

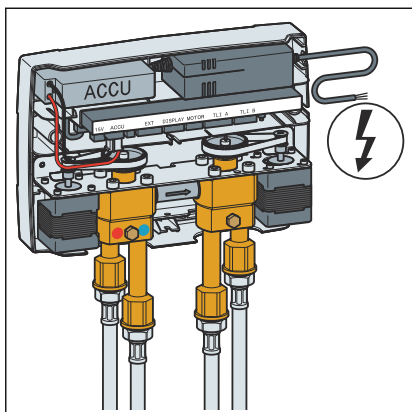


► Connect the hoses of the hot and cold water inputs of the mixing unit to the respective corner valves.



► Connect the rechargeable battery to the control electronics.

Make sure that it is properly aligned. Push the battery in until you feel the plug snap into place.



DANGER! This step may only be carried out by trade professionals!

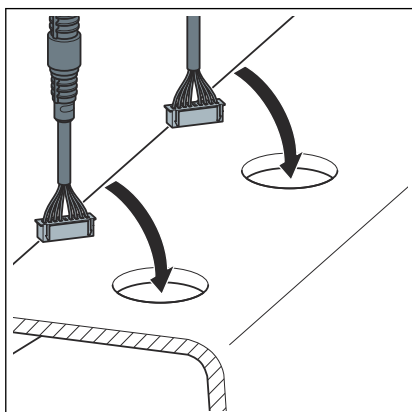
- Connect to the mains.

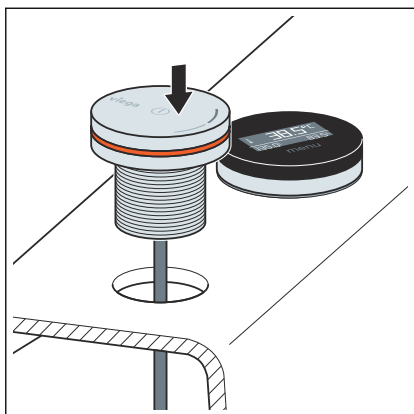
3.2.2 Mounting the control element

The mounting of the control element and the display element is shown here on the bathtub rim by way of example. For mounting them to another surface, e.g. in the pre-wall, the same preconditions and steps apply.

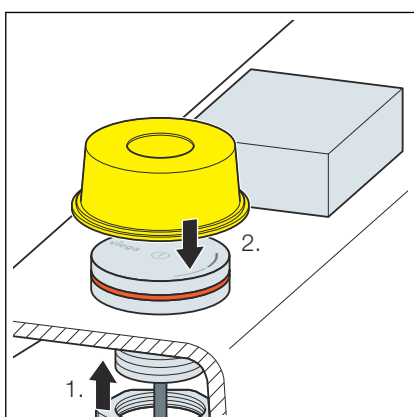
Requirements:

- The planned installation location of the operating element and the display element can be reached with a 3 m long cable (6 m with extension) from the installation location of the mixing unit.
- There must be two drill holes with a diameter of 38–40 mm at the installation site.
- The centres of the drill holes must be at least 80 mm apart.
- There must be clearance of at least 40 mm behind the drill holes.
- Guide the connecting cables of the operating element and the display element through the drill holes.

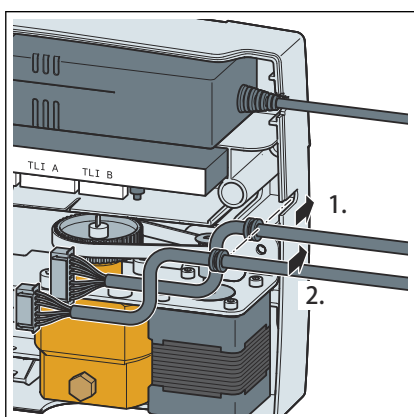




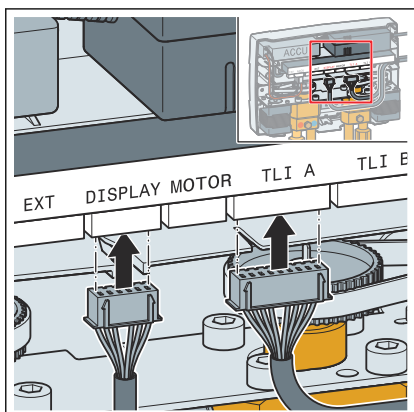
- Insert the operating element and the display element into the drill holes.



- Fasten the operating element and the display element from below with the union nut.
- Place the site protection on the operating element and the display element.



- Lead the cables with cable lead-in into the recess in the right-hand side of the casing of the mixing unit.

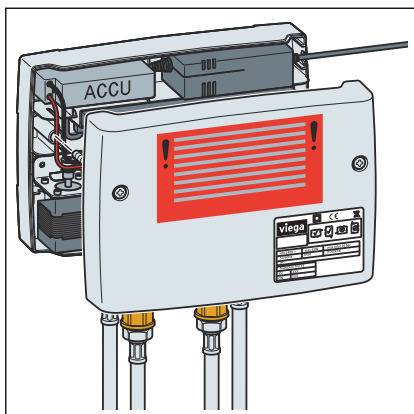


- Connect the plugs of the cables of the control element and the display element with the sockets of the control unit.

Connect the control element with the socket marked „TLI A“.

Connect the display element with the socket marked „DISPLAY“.

The plugs have a groove left and right on one long side which must face forward when plugging in.



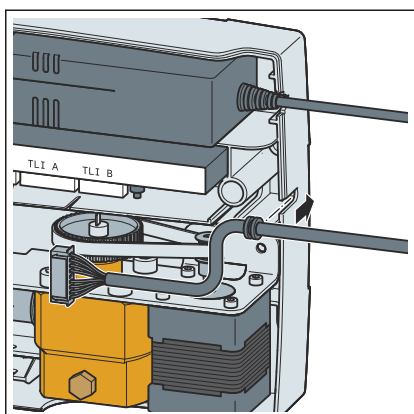
- Set the casing lid on the mixing unit and screw it down.

3.2.3 Connecting the electrical drain (optional)

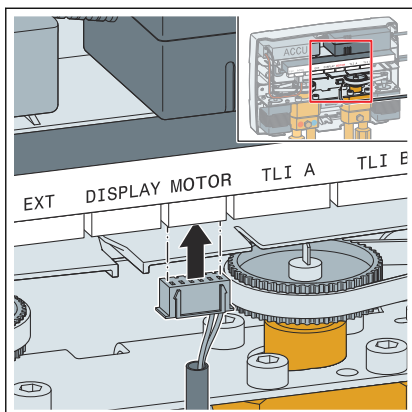
An electrically driven drain and overflow fitting must be used to be able to open and close the drain using the control element. Viega recommends one of the four models mentioned in [Chapter 2.5 'Accessories'](#) on page 18. The motor of these models has a connection through which it is connected to the control of the mixer unit.

Requirements:

- The mixer unit has been mounted.
- The motor-powered drain and overflow fitting has been mounted.
- The mixer unit is accessible and the lid had been removed.
- The motor of the drain and overflow fitting can be accessed from the installation location of the mixing unit using a 3 m cable (5 m with extension).



- Lead the cable with cable lead-in into the recess in the right-hand side of the casing of the mixing unit.



INFO! The drain and overflow fitting must be connected before mains voltage is applied to the mixing unit so that the drain can be detected.

- Connect the plug of the cable with the socket of the control unit marked "Motor".

The plug has a groove left and right on one long side, this should face forward when plugging in.

3.3 Control

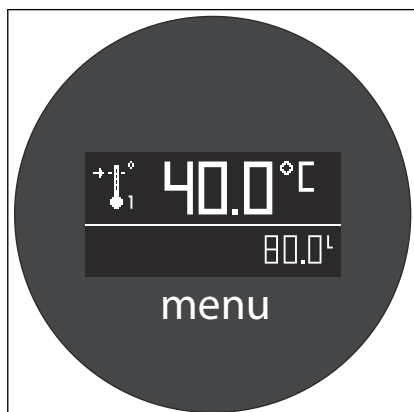
3.3.1 Factory settings

Temperature unit	°C
Memory settings 1, 2 and 3	38 °C, 100 % water stream strength
Water volume	Stop after 45 min.
Temperature limitation of water inlet	Limitation to 80 °C (no mixing in of cold water, water flows in at maximum temperature provided) With thermal disinfection: $T_{\max} \leq 85 \text{ °C}$
Key code	000

3.3.2 Setting the water inlet manually

You can also control the water supply and temperature via the program memory, see [↪ 'Filling the bathtub using the program memory' on page 34.](#)

Starting the water inflow manually



Operating status	[OFF]
Action	Briefly press the control element 1 x.
Result	The water flows in according to the settings of program memory location 1. The operating mode changes to [ON]. The illuminated ring of the control element flashes blue, orange or red, depending on the water temperature. The display shows the current water temperature and inflow volume (see Figure).

Manually stopping the water inflow

Operating status	[ON]
Action	Briefly press the control element 1 x.
Result	The water inlet stops. The operating mode changes to [OFF].

Manually setting the water temperature

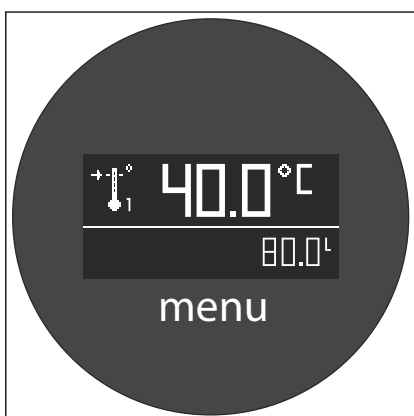


WARNING! **Risk of scalding from hot water**

Unless the maximum water inlet temperature has been limited via the menu, the water temperature can be increased to max. 80 °C. Children may suffer scalding at a temperature of 40 °C and up. In severe cases, scalding may be fatal, just as burn injuries. For this reason, take particular care with water temperatures of more than 40 °C.

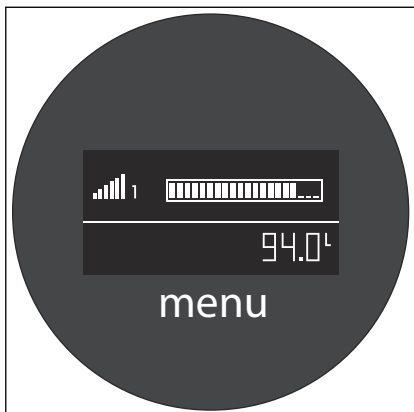
Take the following steps to avoid scalding:


- Beyond a set temperature of 40 °C, the temperature will increase significantly slower when you turn the control element (the rotary movement is stepped down 1:10). Use this scalding protection for a more accurate and careful temperature setting.
- If necessary, limit the water temperature (↪ *Chapter 3.3.3 'Limiting the water inlet time and temperature' on page 32*).
- Lock the extended menu list so that the key code must be entered before the limitation of the water inlet temperature can be unlocked (↪ *'Locking the extended menu list' on page 38*).



Symbol	
Operating status	[ON]
Action	Turn the control element. <ul style="list-style-type: none"> ■ Turn clockwise: warmer (orange illuminated ring) ■ Turn anti-clockwise: colder (blue illuminated ring)
Result	The display shows the current water temperature and inflow volume (see Figure).

Manually setting the water stream strength



Symbol	
Operating status	[ON]
Action	Press and hold the control element while turning it at the same time. Turning clockwise = water stream stronger; turning anti-clockwise = weaker
Result	The display element shows the current water stream strength (cf. illustration).

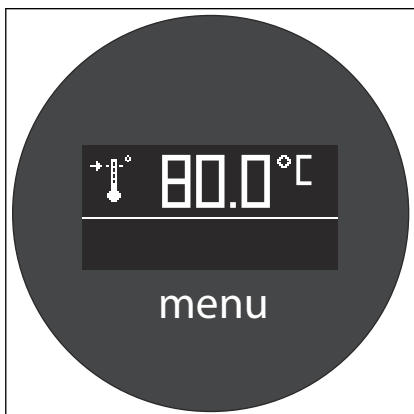
3.3.3 Limiting the water inlet time and temperature



Limiting the water inlet temperature



This setting is only possible via the extended menu list.
First, enable the extended menu list as described in [‘Displaying the extended menu list’ on page 37.](#)

The fitting offers the option to set a limit value for the water inlet temperature. The limit can be between 4 °C and 80 °C. The factory setting for maximum water inlet temperature is 80 °C.



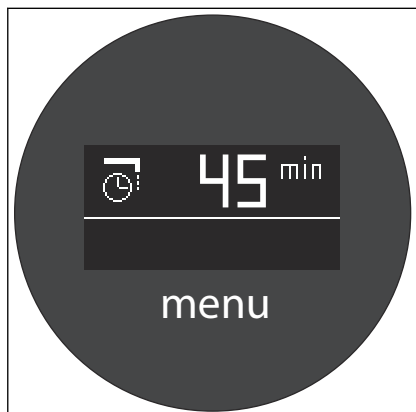
Symbol	
Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol . ■ Briefly press the control or display element. ■ Set the limit value for the water inlet temperature by turning the control element. ■ Briefly press the control element.
Result	The selected value is set as a limit value for the water inlet temperature.

Limiting the water inlet time



This setting is only possible via the extended menu list.
First, enable the extended menu list as described in [‘Displaying the extended menu list’ on page 37.](#)

You can limit the maximum water inlet time. This setting range is between 1 and 99 minutes. If this setting range is limited, it will not be possible later on to increase the water inlet time for the individual program memory spaces beyond this limit.



Symbol	
Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol . ■ Briefly press the control or display element. ■ Select the desired maximum water supply time by turning the control element. ■ Briefly press the control or display element.
Result	You have limited the water inflow inlet to the set value.

3.3.4 Changing the water inlet

Changing between tub faucet and hand shower

Symbol	<p>Depending on the current setting, the display element shows the symbol for the hand shower or the symbol for bathtub filling.</p>
Operating status	[ON]
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol or . ■ Briefly press the control or display element.
Result	The water inflow changes from bathtub filling to hand shower or vice versa.

3.3.5 Using personal settings

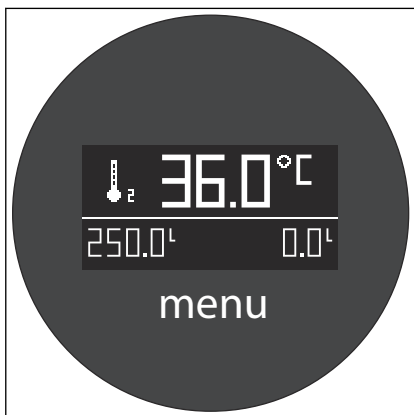
The mixing unit has three program memory locations through which the water supply can take place:

- Briefly press the control element 1 x = program memory location 1
- Briefly press the control element 2 x = program memory location 2
- Briefly press the control element 3 x = program memory location 3

The program memory locations save personal settings for bathtub filling (temperature, water flow volume and water stream strength). When a program memory location is called up, the bathtub fills automatically with the preset values.

The small number next to the thermometer in the display shows the corresponding program memory location (in the example below, program memory location 2).

Filling the bathtub using the program memory




Symbol	
Operating status	[OFF]
Action	Press the control element briefly (1 x, 2 x or 3 x in quick succession) to select the required program memory location (1, 2 or 3).
Result	The bathtub is filled in accordance with the saved settings. The display shows the memory space, the temperature, the programmed water volume (bottom left) and the water volume currently in the tub (bottom right).

Saving personal settings



This setting is only possible via the extended menu list.
First, enable the extended menu list as described in ['Displaying the extended menu list'](#) on page 37.

Symbol	
Operating status	[OFF]


<p>Action</p>	<ul style="list-style-type: none"> ■ Press the control element briefly (1 x, 2 x or 3 x in quick succession) to select the required program memory location (1, 2 or 3). ■ Set the water temperature (turn the control element). <ul style="list-style-type: none"> ■ Turn clockwise = warmer (orange illuminated ring) ■ Turn anti-clockwise = colder (blue illuminated ring) ■ Set the water stream strength (keep the control element pressed and turn it at the same time). ■ Allow the water to flow in to the desired fill depth. ■ Press the display element briefly. <ul style="list-style-type: none"> ■ The menu opens. ■ Turn the control element to select the symbol . ■ Briefly press the control element.
<p>Result</p>	<p>The water inlet stops.</p> <p>The water volume currently in the bathtub and the mean water temperature are saved to the selected memory location.</p>




The saved temperature corresponds to the actual temperature of the bath water and can significantly deviate from the last selected target temperature.

Restoring the factory settings on the program memory



This setting is only possible via the extended menu list. First, enable the extended menu list as described in  'Displaying the extended menu list' on page 37.

<p>Symbol</p>	
<p>Operating status</p>	<p>[OFF]</p>

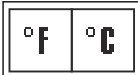


Action	<ul style="list-style-type: none"> ■ Press the control element briefly (1 x, 2 x or 3 x in quick succession) to select the required program memory location (1, 2 or 3). ■ Press the display element briefly. ■ Turn the control element to select the symbol . ■ Briefly press the control element.
Result	<p>The water inlet stops.</p> <p>You have reset the selected memory space to factory settings (also see Chapter 3.3.1 'Factory settings' on page 30).</p>

Changing the unit of the temperature display



This setting is only possible via the extended menu list. First, enable the extended menu list as described in ['Displaying the extended menu list'](#) on page 37.

The display can show temperatures in either Celsius (°C) or Fahrenheit (°F). The display shows one of the two symbols, depending on the current setting.

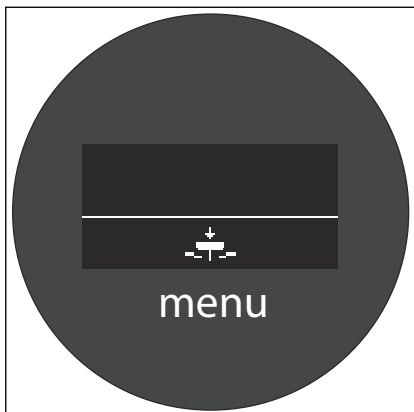
Symbol	
Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol  or . ■ Briefly press the operating or display element.
Result	The display element shows the selected temperature unit.




3.3.6 Electronic operation of the drain



To use this function, an electrically operated drain and overflow must be mounted and connected. Further information can be obtained from your trade professionals.

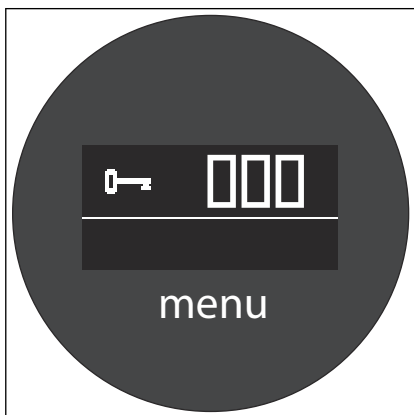
Opening/closing the drain by means of the control element






Symbol	 <p>Depending on the current setting, the display element shows the symbol for opening  or for closing .</p>
Operating status	OFF
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol for opening/closing the drain valve. ■ Press the control or display element.
Result	<p>The drain valve opens or closes.</p> <p>The display shows the corresponding symbol (cf. illustration on the left).</p>

3.3.7 Configuring the menus and control

Displaying the extended menu list





To display the extended menu list, it is necessary to enter the key code. The key code 000 is preset on delivery.

Symbol	
Operating status	OFF
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol . ■ Briefly press the control or display element. ⇒ The key code is requested in the display (cf. illustration on the left). ■ Enter the key code by turning the control element. ■ Briefly press the control or display element.
Result	<p>The extended menu list will be unlocked for approximately 30 minutes.</p> <p>After this, the menu list is locked again automatically to ensure that the protected functions are available to authorized persons only. To restore the lock immediately, select the symbol  by turning and pressing the control element.</p>

Locking the extended menu list

To unlock the extended menu list at a later time, you will need the key code. On delivery, the key code is 000.

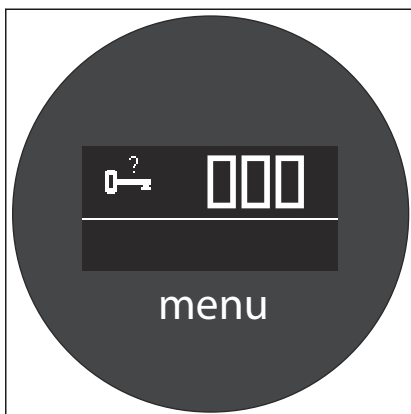
Symbol	
Operating status	OFF
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol . ■ Briefly press the control or display element.
Result	The extended menu list is locked and can only be unlocked by entering the key code.



Setting a new key code



The key code can only be changed 30 minutes after the power supply has been connected. After that, the respective menu item is disabled.

If you need to change the key code, disconnect the fitting briefly, for at least 10 seconds, from the mains and from the rechargeable battery. (This will not reset the other device settings.)



Symbol	
Operating status	OFF
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol . ■ Briefly press the control or display element. ■ Set the desired key code by turning the control element. ■ Briefly press the control or display element.
Result	The new key code is saved.





If you have changed the key code and then forgotten it, you can set a new key code as described above. You do not need to enter the old key code.

Restoring the factory settings on the mixing unit



This setting is only possible via the extended menu list. First, enable the extended menu list as described in [‘Displaying the extended menu list’ on page 37](#).

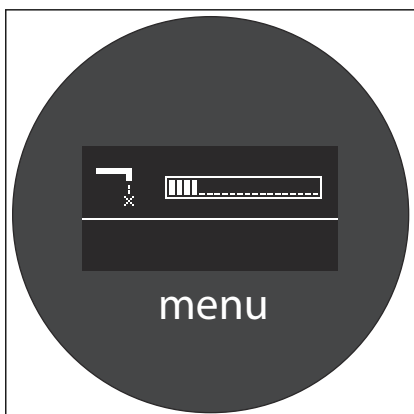
It is possible to reset the fitting completely to factory settings. For the full factory settings, refer to [Chapter 3.3.1 ‘Factory settings’ on page 30](#).



Symbol	
Operating status	OFF
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol . ■ Briefly press the control or display element.
Result	All settings have been reset to the factory settings.


3.3.8 Cleaning functions

Care mode

In care mode, the electronic mixing unit is disabled for 45 seconds. This allows you to clean the control and display elements, for example, without inadvertently initiating a function.



Symbol	
Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol . ■ Briefly press the operating or display element.
Result	The control element is disabled for 45 seconds. For this period of time, the illuminated ring flashes green. The display element shows a progress bar (see figure on the left).

You can disable the care mode before expiry of the 45 seconds by selecting the  symbol in the menu.

Thermal disinfection



WARNING! **Risk of scalding from hot water**

Unless a temperature safeguard has been set, the water temperature can be increased to max. 80 °C. Children may suffer scalding at a temperature of 40 °C and up. In severe cases, scalding may be fatal, just as burn injuries. For this reason, proceed with particular caution when carrying out thermal disinfection.

Take the following steps to avoid scalding:

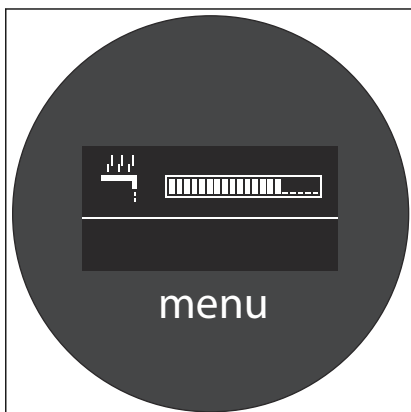
- Ensure that nobody is standing close to the fitting and that splattering of the hot water is excluded.
- Change the key code so that only authorized persons can perform the thermal disinfection. ↪ *'Setting a new key code' on page 38*
- After completed disinfection, run some cold water so that no hot water remains in the pipes.
- You can abort thermal disinfection at any time by pressing and releasing the control element.





This setting is only possible via the extended menu list.

First, enable the extended menu list as described in ↪ *'Displaying the extended menu list' on page 37.*

Thermal disinfection is a five-minute program, and ensures that germs in the mixing unit are removed by hot water. The mixing unit is flushed through at the maximum supply temperature. The least amount of water is used.



Symbol	
Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol . ■ Briefly press the operating or display element.
Result	<p>Thermal disinfection starts.</p> <p>The display element shows a progress bar (see figure on the left).</p> <p>During thermal disinfection, the illuminated ring of the control element flashes red as a warning.</p>

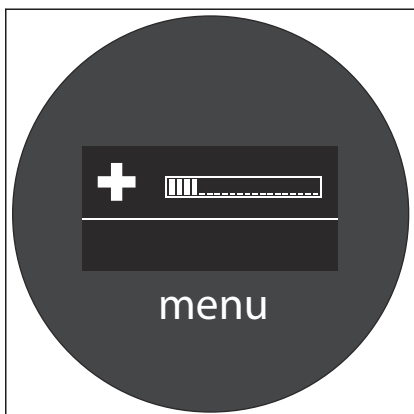
3.3.9 System diagnosis and statistics

Using the diagnosis mode



This setting is only possible via the extended menu list. First, enable the extended menu list as described in ['Displaying the extended menu list' on page 37](#).

The fitting can carry out an automatic system diagnosis. The sensors for temperature and volumetric flow are tested.



Symbol	
Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol . ■ Briefly press the operating or display element.
Result	<p>The automatic system diagnosis starts.</p> <p>The display element shows a progress bar (cf. illustration).</p>

During the analysis, the illuminated ring of the control element shows which component of the product is being checked right now.

Indication during the diagnosis:

- Illuminated ring inactive: cartridge position is being checked and calibrated
- Illuminated ring red: hot water ON
- Illuminated ring green: water OFF
- Illuminated ring: cold water ON

Indication of the findings

After completion of the diagnosis, the findings are indicated in the bottom centre of the display. The following results of a diagnosis can be indicated:

Symbol	Findings
	No malfunctions
	Temperature sensor malfunction
	Malfunction of the volumetric flow sensor

Show statistics





This setting is only possible via the extended menu list.







First, enable the extended menu list as described in ['Displaying the extended menu list' on page 37](#).

The recorded data can be output via a statistics function.

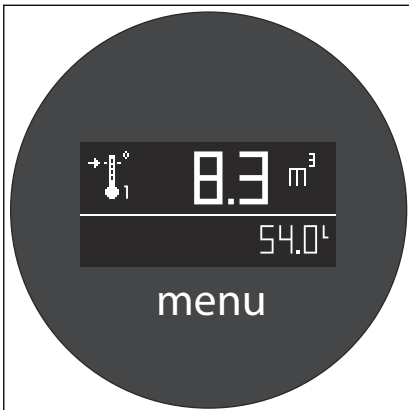
For legal reasons, the statistical data cannot be deleted.

Symbol	
Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol . ■ Briefly press the operating or display element.
Result	The display element successively shows the various statistical values.

They are indicated by one symbol each which stands for the type of the currently shown statistical value, and by one value.

Symbol	Indicated value
	Total number of operating hours of the fitting (with a maximum deviation of ten hours)
	Number of call-ups of personal settings with indication of the respective number (with a maximum deviation of ten call-ups)
	
	
	Number of thermal disinfections carried out
	Number of minutes in battery mode (with a maximum deviation of ten minutes)

Indicating the water consumption



You can have two water consumption values displayed:

- The entire fill volume since the mixing unit was commissioned is shown in m³ in the top line.
- The last fill volume in litres is shown in the bottom line.

Symbol	
Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Press the display element briefly. ⇒ The menu opens. ■ Turn the control element to select the symbol ■ Briefly press the operating or display element.
Result	The water consumption is indicated in the display (see Figure).

3.4 Troubleshooting

Error	Cause	Troubleshooting
The device is not functioning.	The device is not connected to the mains	Connect the device to the mains
	Failure of mains power supply	Check the terminal box
	Power pack not connected to control electronics	Check or establish the connection
	Operating and display element not connected	Check or establish the connection
The device switches the water inlet off too early.	Saved inlet time is set too short	Set a longer inlet time ↪ <i>'Manually setting the water temperature' on page 31</i>
	Hot and cold water connections mixed up	Exchange the connections
The water temperature is not as desired.	Hot and cold water pipes mixed up	Exchange the connections
	Hot or cold water valve not fully open	Fully open the corner valves
	Connection hoses kinked	Check laying of the hoses
	Connection lines clogged	Flush the lines Clean the filter
	Reservoir empty	Check reservoir

Error	Cause	Troubleshooting
	Flowthrough heater not connected	Check or establish the connection
	Temperature sensor not connected or defective	Carry out the "System diagnosis" function ↻ 'Using the diagnosis mode' on page 41
	Motor for temperature control not connected or defective	Carry out the "Diagnosis" function ↻ 'Using the diagnosis mode' on page 41
	Toothed belt came off or defective	Check toothed belt
	Pressure difference between cold and hot water inlet too great ($\Delta > 0.1$ MPa, 1 bar)	Adjust pressure
No water flow	Hot or cold water valve not fully open	Fully open the valves
	No water supply	Check main tap
	Supply hoses kinked	Check the laying of the supply hoses
	Filter clogged	Clean the filter
	The device is not connected to the mains	Connect the device to the mains
	Failure of mains power supply	Check the terminal box
	Mains adapter not connected to control	Connect 2-pole plug with control electronics
	Operating and display element not connected	Check or establish the connection
The water flow is not as desired.	Hot or cold water valve not fully open	Fully open the valves
	Supply hoses kinked	Check the laying of the supply hoses
	Filter clogged	Clean the filter
	Motor for water flow not connected, or defective	Check connection and function
	Toothed belt came off or defective	Check toothed belt
	Saved flow is too small	Reset the function "Factory settings" ↻ 'Restoring the factory settings on the mixing unit' on page 38
Constant water flow	Motors not calibrated	Carry out the "Diagnosis" function ↻ 'Using the diagnosis mode' on page 41
	Valves do not close	Carry out the "Diagnosis" function ↻ 'Using the diagnosis mode' on page 41

Error	Cause	Troubleshooting
The water is turned off after a certain period of time.	On-time limit reached	Adjusting the on-time limit ↪ <i>'Limiting the water inlet time'</i> on page 32
	Individually saved filling volume reached	Carry out the function "Deleting the saved settings" ↪ <i>'Restoring the factory settings on the program memory'</i> on page 35
The illuminated ring of the control element flashes green.	Care mode active	Wait 45 seconds or deactivate care mode via the menu ↪ <i>'Care mode'</i> on page 39
No operation during power failure	Battery not connected	Connect battery to controller (ACCU)
	Battery empty	Recharge battery for at least 24 hours
	Battery defective	Replace battery
The casing is moist or wet.	Impermissible installation situation	see label on cover
	Inlets and outlets of valves not properly sealed	Check the sealing, re-seal of necessary
	Condensate at the valve bodies	no measures required
The control unit (with cable connection) does not react.	The control unit is not connected properly.	Check the connection
	The control unit is defective	Replace the control unit
	The rotating knob does not turn smoothly	Remove and clean the rotating knob
Only cold water from the hand shower	The preset is at the factory setting "cold"	Change the preset to the desired temperature
The saved filling volume is not correct.	Flow sensor soiled	Clean flow sensor
	Flow sensor defective or not connected	Carry out the "Diagnosis" function ↪ <i>'Using the diagnosis mode'</i> on page 41

3.5 Care and maintenance

3.5.1 Care tips

Normal soap or a mild cleaning agent can be used for regular maintenance and prevention of lime scale on the control elements. Use no scouring agent or abrasive objects.

Strong stains can be removed using typical household cleaner. Rinse the detergent very thoroughly with clear water after the prescribed dwell time. There should be no residue on the components.

3.5.2 Maintenance

Replacing the rechargeable battery

If the rechargeable battery is not sufficiently charged (e.g. due to age), the mixing unit will close and can no longer be used. The control element then flashes red five times.

Viega recommends replacing the battery every 3–5 years, depending on use.



Viega recommends replacing the battery every 3–5 years, depending on use.

For a description of the replacement of the battery, see [Chapter 3.5.4 'Replacing the rechargeable battery'](#) on page 47.

Changing the filter in corner valves

Depending on the local water quality, the filters in the corner valves must be cleaned or replaced regularly. At commissioning, specify a maintenance interval which is in keeping with the local water quality.

For a description of the filter replacement, see [Chapter 3.5.3 'Changing the filters in the corner valves'](#) on page 46.

System diagnosis

Some of the causes for malfunctions can be identified by system diagnosis. Since the system diagnosis tests important (also safety-relevant) functions of the fitting, carry out a system diagnosis regularly.

Viega recommends running a system diagnosis every 18 months. When the device is used very often, reduce the interval correspondingly.

Thermal disinfection

To prevent germ infestation of the water even with infrequent use of the bathtub, Viega recommends carrying out a thermal disinfection in the following cases and intervals:

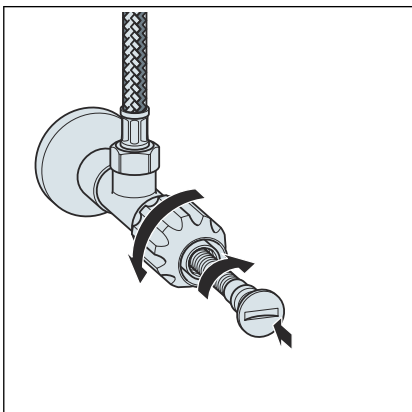
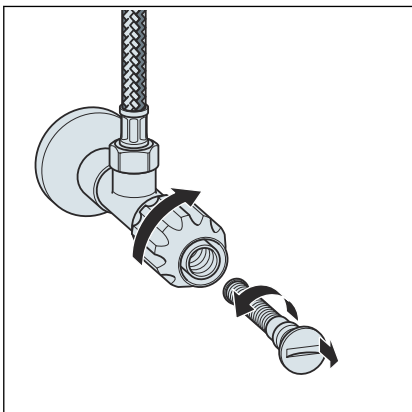
- after the bathtub has not been used for 72 hours, see ['Regulations from section: Maintenance'](#) on page 6
- otherwise after 7 days at the latest, see ['Regulations from section: Maintenance'](#) on page 6

3.5.3 Changing the filters in the corner valves

Depending on the local water quality, the filters in the corner valves need to be changed regularly.

Requirements:

- The corner valves are accessible (e.g. through a revision opening).
- Turn off the water supply to the mixing unit.
- Unscrew the filter in an anti-clockwise direction.
- Remove the filter.



- Insert the new filter.
- Tighten the filter clockwise.
- Turn the water supply to the mixing unit back on.

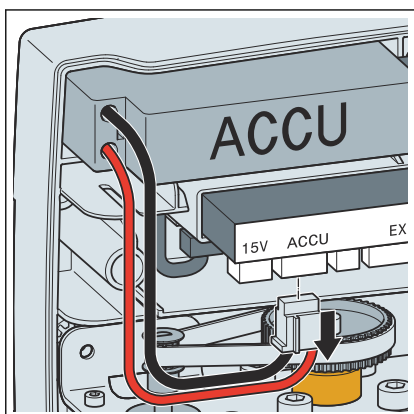
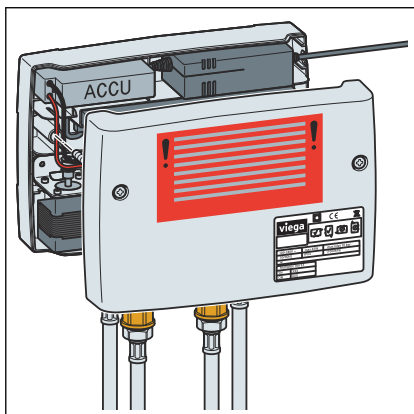
3.5.4 Replacing the rechargeable battery



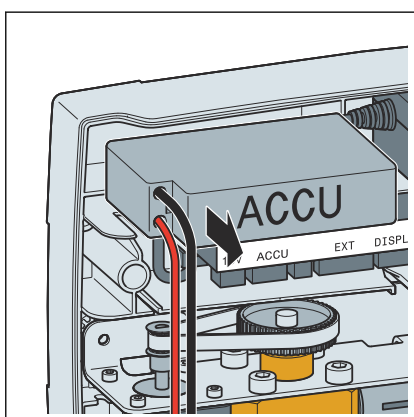
Viega recommends replacing the battery every 3–5 years, depending on use. If the rechargeable battery is not sufficiently charged (e.g. due to age), the mixing unit will close and can no longer be used.

Requirements:

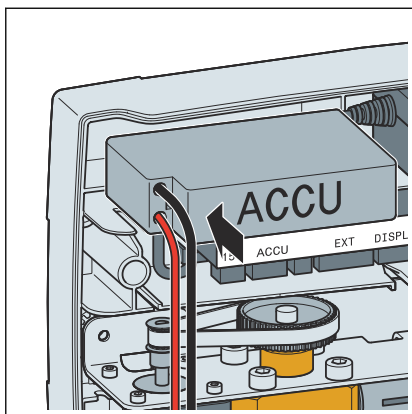
- The mixing unit is accessible (e.g. through a revision opening).
- The lid of the mixing unit can be removed.
- A spare battery is available.
- Loosen the screws of the casing cover and store them.
- Remove the casing cover.



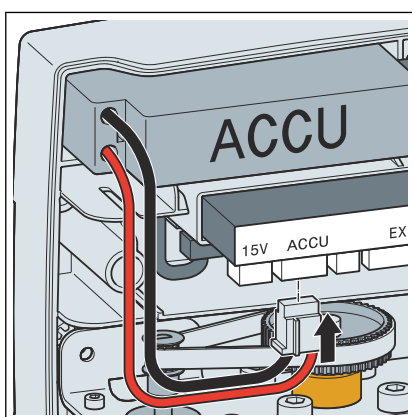
- Pull the plug straight out of the control.



- Remove the rechargeable battery from the mixing unit and dispose of it properly.

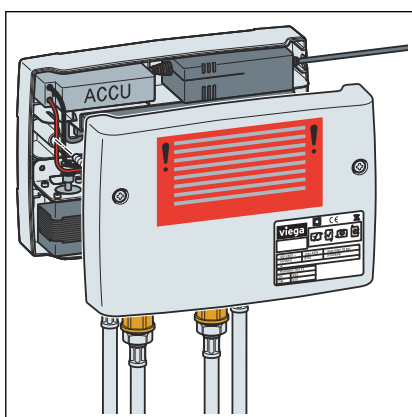


➤ Insert the new rechargeable battery.



➤ Connect the rechargeable battery to the control electronics.

Make sure that it is properly aligned. Push the battery in until you feel the plug snap into place.



➤ Place the casing cover on the mixing unit and refasten it.

3.6 Disposal

Separate the product and packaging materials (e. g. paper, metal, plastic or non-ferrous metals) and dispose of in accordance with valid national legal requirements.



Viega GmbH & Co. KG
service-technik@viega.de
viega.com

INT • 2023-05 • VPN180383

