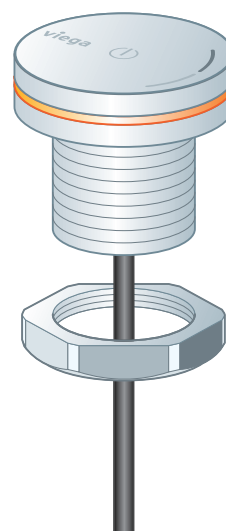
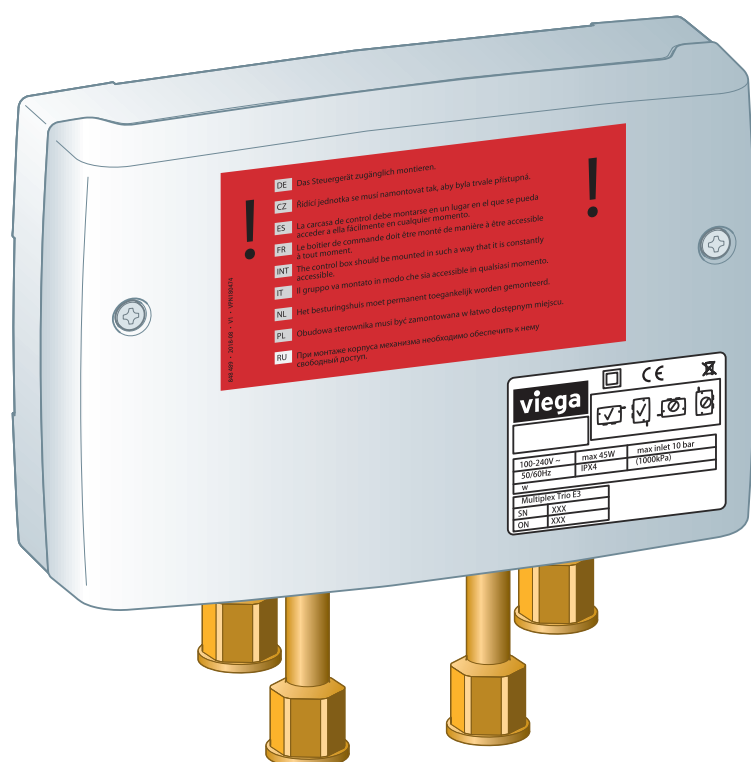


Instructions for Use

Multiplex Trio E 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

Year built (from)
01/2010

viega

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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 14.

2.3.2 Maintenance

Regular maintenance is part of running the system properly ↗ *Chapter 3.5.2 'Maintenance'* on page 35.



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

2.4 Product description

2.4.1 Overview

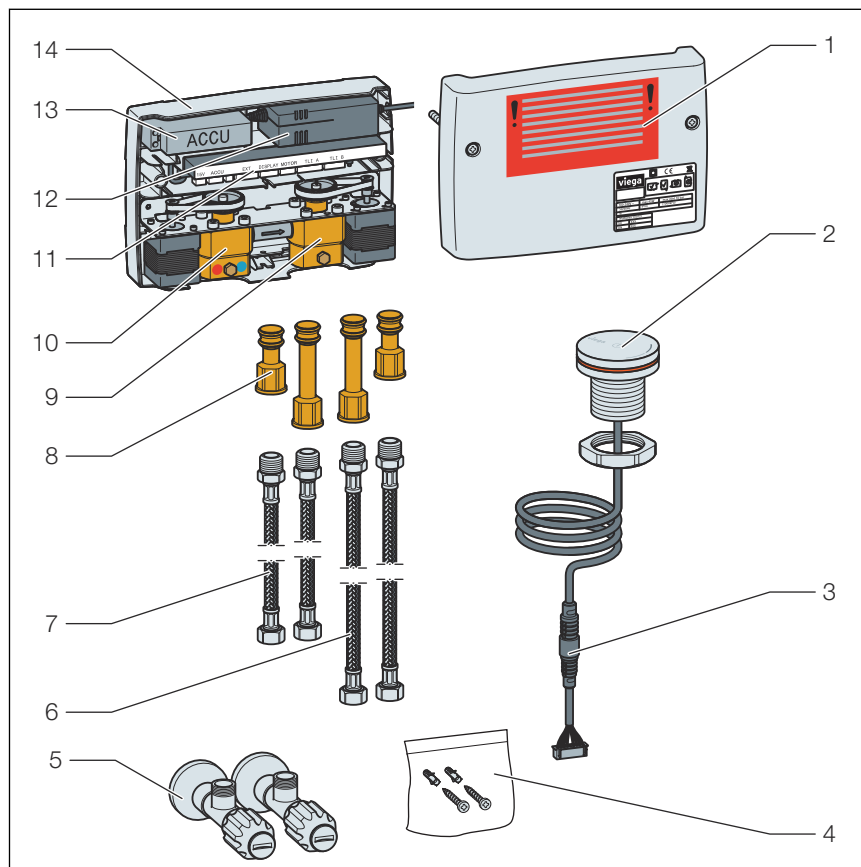


Fig. 1: Components and scope of delivery

- 1 Casing, upper part
- 2 Control element
- 3 connection cable with plug connector (extendable as an option)
- 4 Fixing material
- 5 2 corner valves with filter, R $\frac{1}{2}$ x G $\frac{1}{2}$
- 6 Flexible connection hoses R $\frac{1}{2}$ x G $\frac{1}{2}$, (length 520 mm)
- 7 Flexible connection hoses R $\frac{1}{2}$ x G $\frac{1}{2}$, (length 300 mm)
- 8 Connection set for actuator unit
- 9 actuator unit for switching between tub and hand shower
- 10 actuator unit for the hot and cold water mixer
- 11 control with plug contacts for all components
- 12 Mains adapter 230 V, with 3 m connection cable
- 13 battery for emergency operation
- 14 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 19
Flow capacity	↪ Fig. 2 or ↪ Fig. 3
Warm water temperature	$T_{\max} \leq 60 \text{ }^{\circ}\text{C}$ (from $> 40 \text{ }^{\circ}\text{C}$ upwards, the anti-scalding protection lowers the temperature increase when the control element is turned.) <i>with thermal disinfection:</i> $T_{\max} \leq 85 \text{ }^{\circ}\text{C}$
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

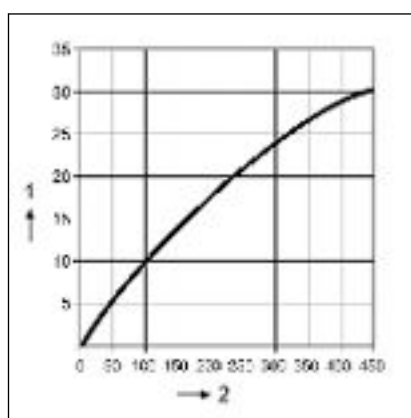


Fig. 2: Rate of flow without accessories (corner valves, filling hose, pipe interrupter)

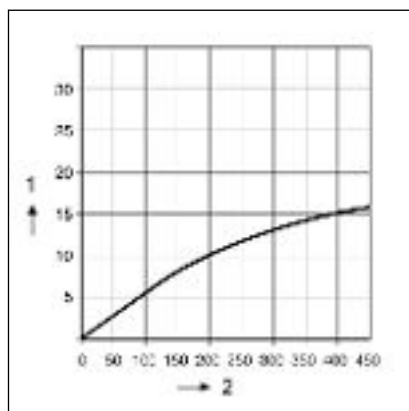


Fig. 3: Rate of flow with accessories (corner valves, filling hose, pipe interrupter)

- 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:

- Diagnosis mode for performing a functionality test
- Performing a thermal disinfection
- Resetting the factory settings

- Enabling the safeguarding function for locking "Thermal disinfection" and "Reset to factory settings"
- Unlocking the temperature safeguard
- Cleaning mode for short-term disabling of the control element, e.g. for cleaning
- Automatic opening and closing of the drain set if the respective Viega drain set has been mounted (motor-driven drain plug)

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.
- Thermal disinfection can be disabled via the option lock. This function can for example be used 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 available functions depend on the current operating status.

Control element

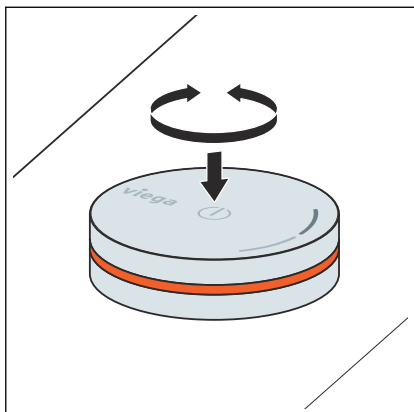


Fig. 4: control element

The control element can be pressed and turned.

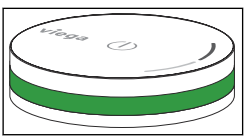
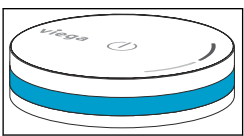
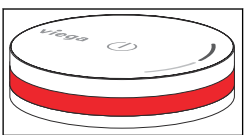
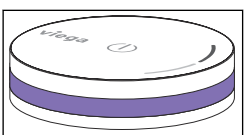
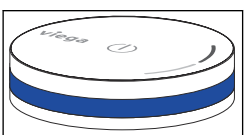
Keep pressed long = Illuminated ring indicates different menu functions.

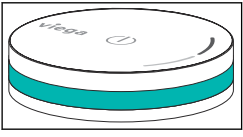
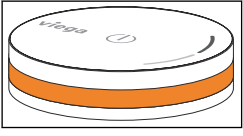
Press briefly = Water flows in / water inlet stops

Turn = Make various settings (e.g. change water temperature).

Menu structure

Pressing and holding the control element calls up the menu. As long as you keep control element A pressed, the different menu functions are displayed one after the other. The menu functions are distinguished by different colours on the illuminated ring. Each colour signifies a different menu function (see table below).

Colour of the illuminated ring		Function
Green		Standby mode
Light blue		Changing between bathtub inlet and hand shower
Red		Overcoming the 38 °C temperature safeguard / thermal disinfection
Purple		Saving personal settings
Dark blue		Deleting personal settings

Turquoise		Enabling the function lock: flash once = functions available flash twice = Functions locked
Amber		Diagnosis mode



Red flashing of the illuminated ring in operating mode [OFF] indicates: The battery charge has dropped below minimum, and the bathtub fitting cannot be controlled any more (see [Chapter 3.5.4 'Replacing the rechargeable battery'](#) on page 36).

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.

Example:

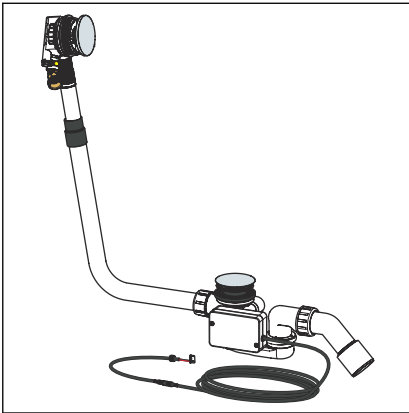
Operating status	[OFF]
Action	Briefly press the control element once.
Result	The water starts to flow. (Automatic stop after max. 45 minutes.)

2.5 Accessories



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

Required accessories

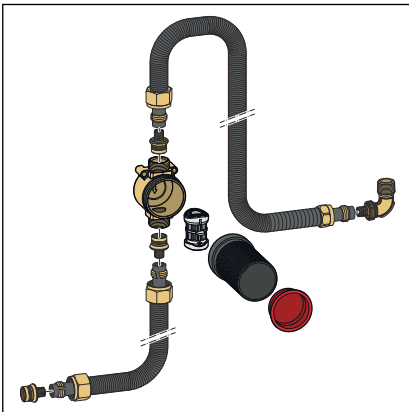


Inlet, drain and overflow

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:

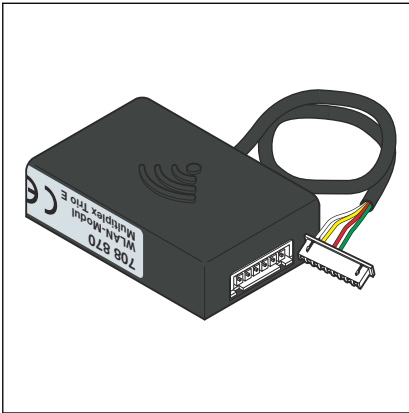
- Multiplex Trio drain / overflow, model 6175.1
- Rotaplex Trio drain / overflow, model 6175.2
- Multiplex Trio F drain / overflow, model 6148.1
- Rotaplex Trio F drain / overflow, model 6148.2



Pipe interrupter

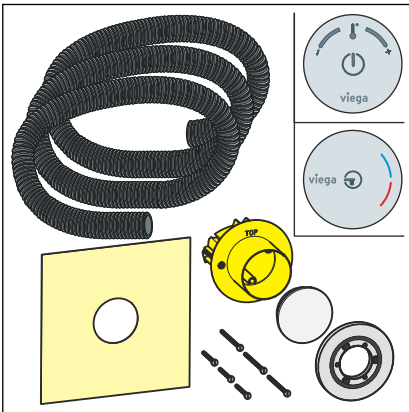
To ensure that no bath water flows back into the potable water installation, a pipe interrupter must be installed, e.g. the connection set with concealed pipe interrupter DN15, model 6161.86. A suitable cover rosette for the pipe interrupter must be purchased separately.

Optional accessories



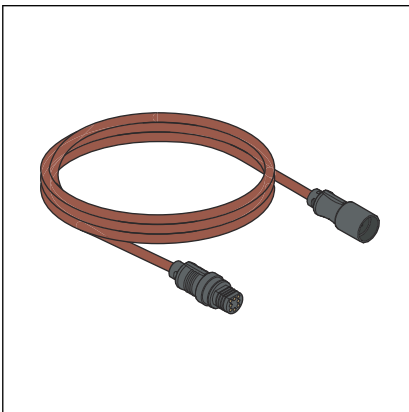
WLAN module

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 cable

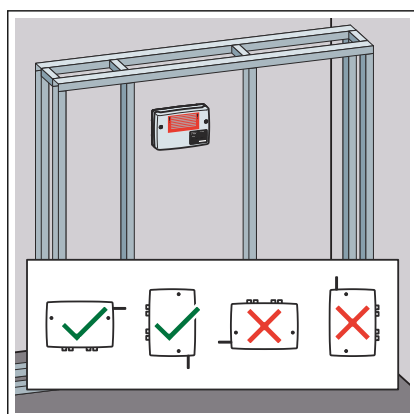
3 m extension cable for the control element: model 6146.22.

3 Handling

3.1 Assembly information

3.1.1 Mounting conditions

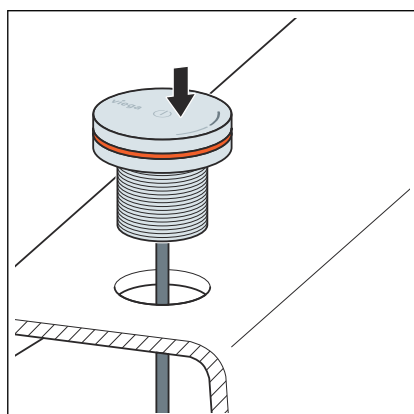
Mixing unit



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 element that the connection cable (3 m) is subjected to tensile stress.
If required, the connection cable of the control element can be extended to 6 m ↪ *Chapter 2.5 'Accessories' on page 14.*

Control element



The following requirements exist for the mounting of a control element:

- The element should be easily reachable from both inside and outside the tub.
- 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.
- A drill hole with a diameter of 38–40 mm is required for fixing an element.
- If mounting is to take place on the tub rim, Viega recommends having the drill holes made by the manufacturer, if possible.
- There must be clearance of at least 40 mm provided behind or below the mounting area.
- The connection cable must be laid free of tensile stress from the installation position of an element to the controller unit.
If required, the connection cable can be extended from 3 m to 6 m ↪ *Chapter 2.5 'Accessories' on page 14.*
- 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.

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:

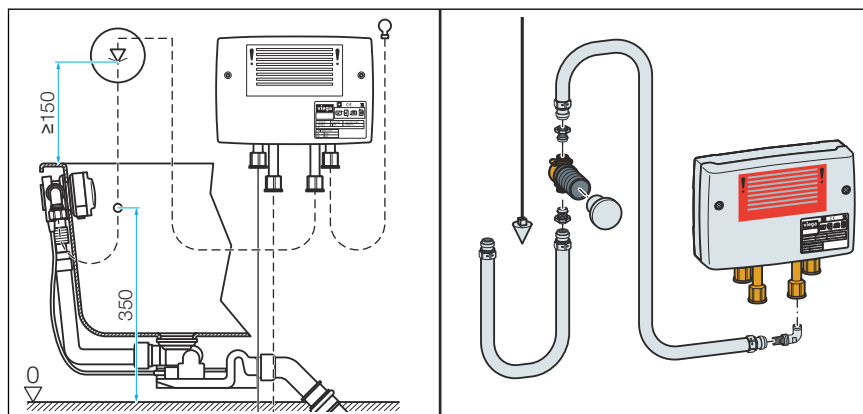


Fig. 5: Mounting scheme with pipe interrupter

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

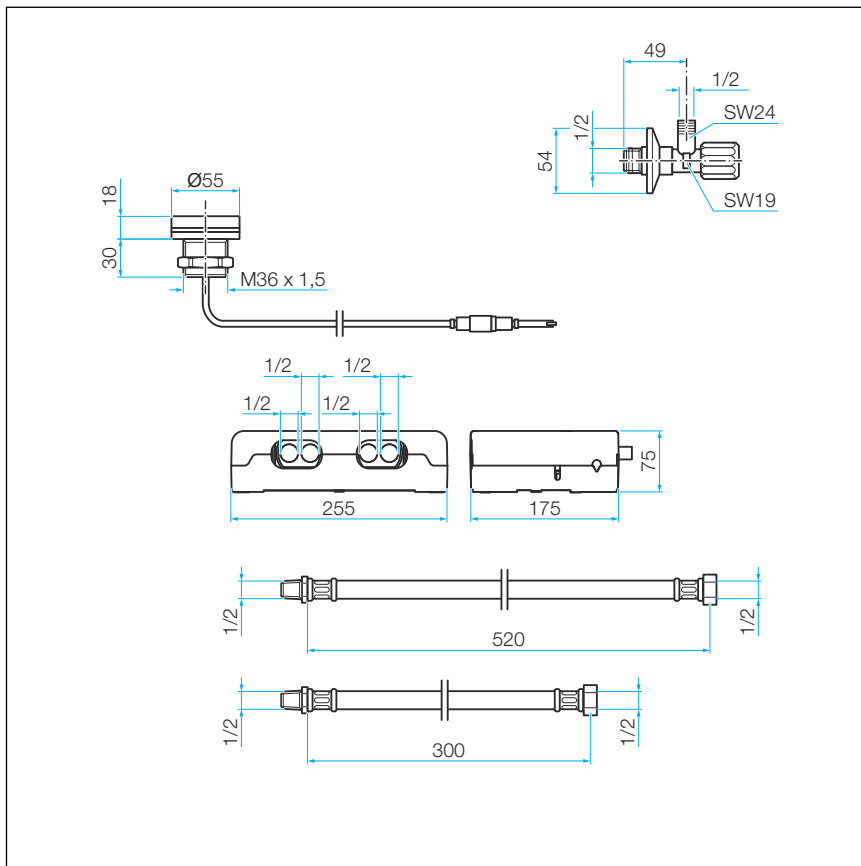


Fig. 6: Dimensions

3.2 Assembly

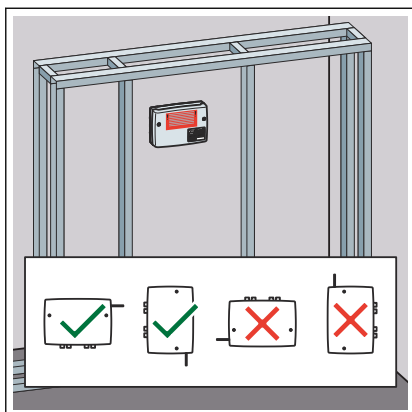
3.2.1 Mounting the mixing unit



DANGER! **Danger due to electrical current**

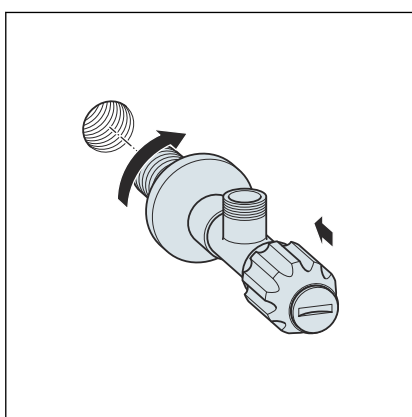
An electric shock can lead to burns and serious injury and even death.

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

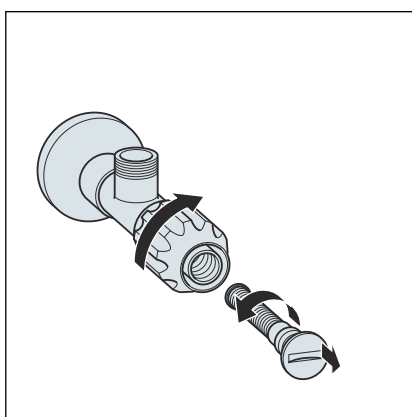

Requirements:

- 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.

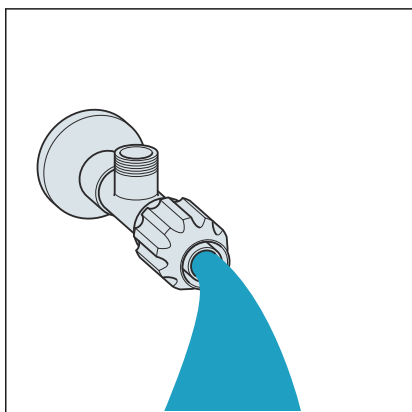
- Mount the corner valves to the hot and cold water installations.

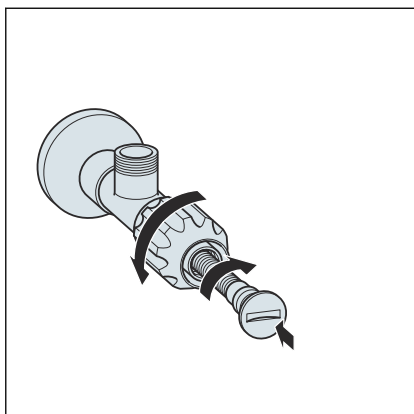


- Unscrew the filter in an anti-clockwise direction.
- Remove the filter.

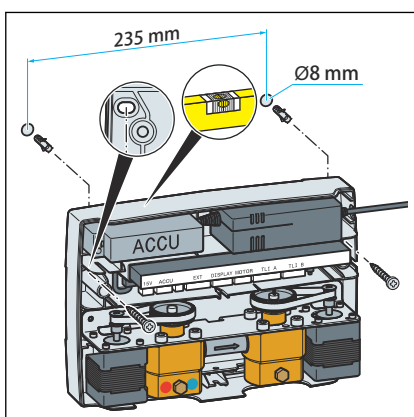


- Open the water inlet for a few seconds to flush the pipe.





► Screw the filter into the corner valve.

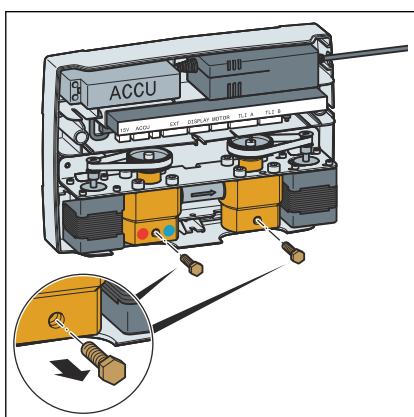


► Set the 8 mm dowels according to the specified dimensions.

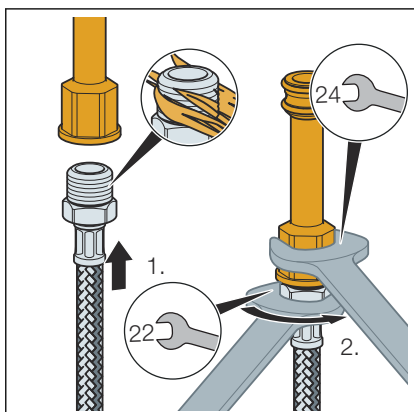
Distance: 235 mm
Drill hole depth: 65 mm

Use a spirit level for horizontal and vertical alignment.

► Screw on the mixing unit.

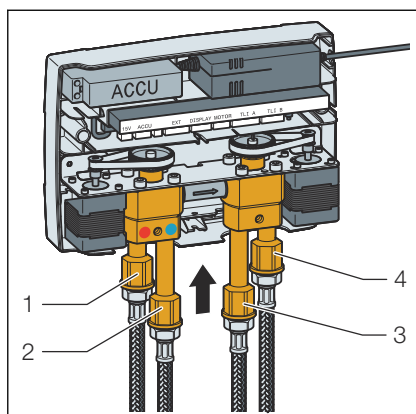


► Unscrew the safety screws.



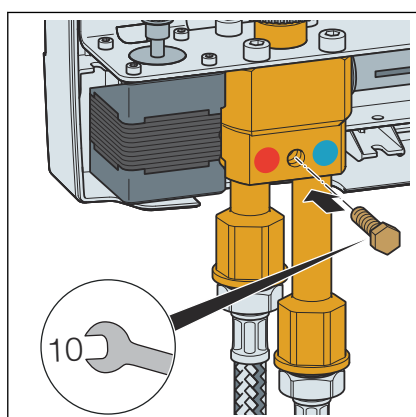
► Seal the hoses.

► Screw the hoses onto the connecting pieces.

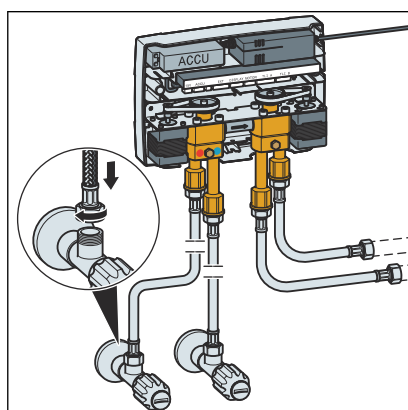


► Attach the connecting pieces with the flexible hoses in the inputs and outputs of the mixing unit.

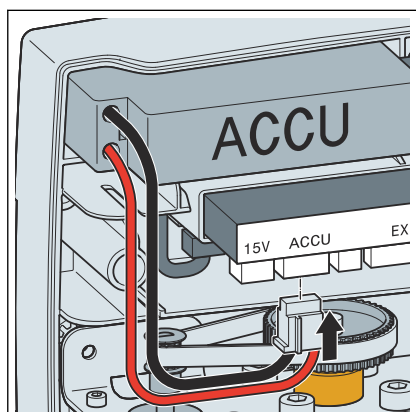
- 1 = Hot potable water connection
- 2 = Cold potable water connection
- 3 = Bathtub connection
- 4 = Hand shower connection



► Tighten the safety screws.

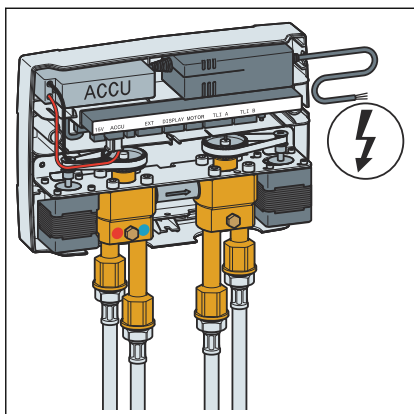


► Connect the hoses of the hot and cold water inputs of the mixing unit to the respective corner valves.



► 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!

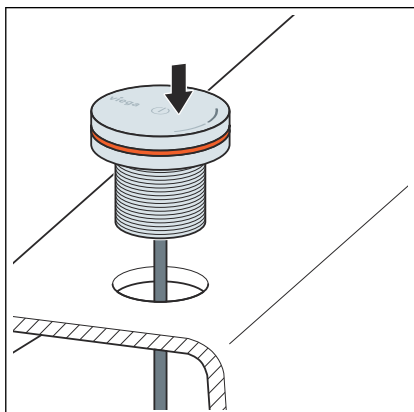
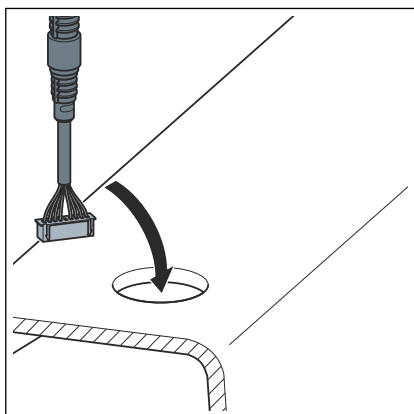
- Connect to the mains.

3.2.2 Mounting the control element

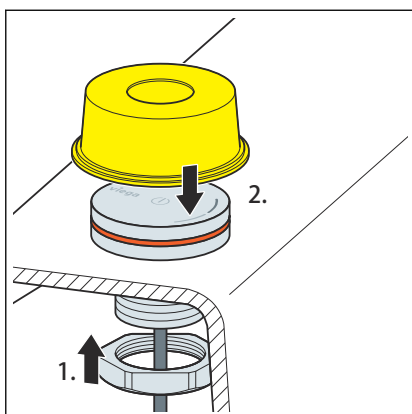
Mounting of the control element is shown here at the bathtub rim by way of example. For mounting it at another surface, e.g. in the pre-wall, the same steps and preconditions apply.

Requirements:

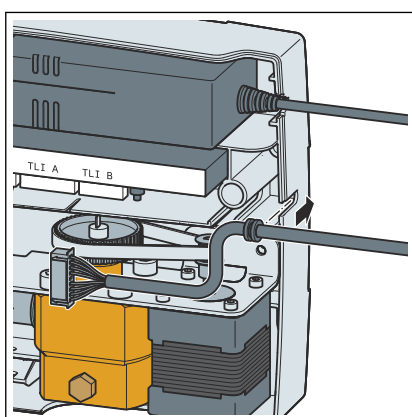
- The planned installation location of the control element can be reached from the installation location of the mixing unit with a cable of 3 m length (6 m with extension).
- At the installation location, there is a drill hole with a diameter of 38–40 mm.
- Behind the drill hole, there is a clearance of at least 40 mm.
- Guide the connection cable of the control element through the drill hole.



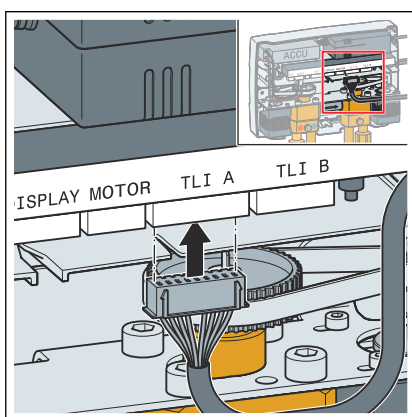
- Insert the control element in the drill hole.



- Fasten the control element from below with a union nut.
- Place the site protection on the control element.

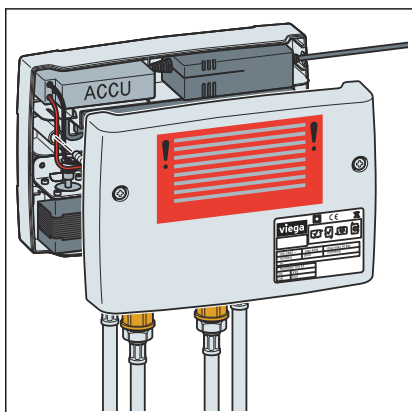


- Lead the cable with cable lead-in into the recess in the right-hand side of the casing of the mixing unit.



- Connect the plug of the cable to the control element with the connection of the control unit marked „TLI A“.

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



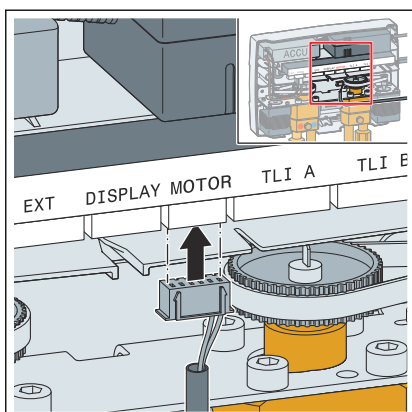
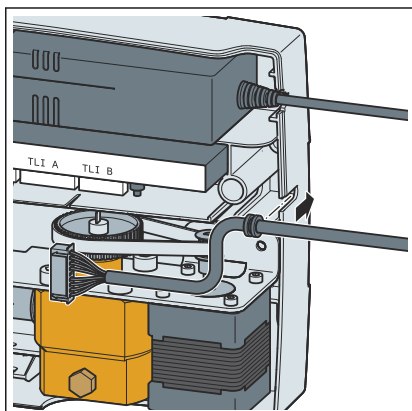
- Set the casing lid on the mixing unit and screw it down.

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 14. 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

Program memory locations

The electronic mixing fitting has three program memory locations to which the users can save their individual settings. The individual settings include the water temperature, the strength of the water stream and the water volume defined via the inflow time.

The program memory locations are assigned the following values in the factory setting:

- Program memory location 1: 12 °C, 100 % water stream strength, 45 min inflow time
- Program memory location 2: 25 °C, 100 % water stream strength, 45 min inflow time
- Program memory location 3: 38 °C, 100 % water stream strength, 45 min inflow time

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 28](#).

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.

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



The fitting has a temperature safeguard at 40 °C to exclude scalding. For information on how to bypass the temperature safeguard, see [🔗 Chapter 3.3.3 'Disabling the temperature safeguard' on page 27](#).

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	You have changed the water temperature.

Manually setting the water stream strength

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 water stream strength is changed.

3.3.3 Disabling the temperature safeguard



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

At water temperatures of 40 °C and up, there is the risk of scalding, in particular for children. At significantly higher temperatures, severe injuries from scalding may occur. To prevent such injuries, the mixing unit comes with a temperature safeguard permanently preset to 40 °C.

Comply with the following measures to prevent scalding:

- After disabling the temperature safeguard, proceed with particular caution when increasing the temperature.
- Only disable the temperature safeguard if a direct contact with the water at the water outlet is excluded, and if there are no small children or handicapped persons in the bathtub.
- Children must always be supervised in the bathtub so that they cannot accidentally disable the temperature safeguard.

Operating status	[ON]
Action	<ul style="list-style-type: none"> ■ Turn the control element clockwise until the LED flashes orange fast. ■ Press and hold the control element until the LED emits red light. ■ Release the control element. ■ Continue to turn the control element clockwise.
Result	You can now set a temperature beyond 40 °C.

3.3.4 Changing the water inlet

Changing between tub faucet and hand shower

Operating status	[ON]
Action	<ul style="list-style-type: none"> ■ Keep the control element pressed until the illuminated ring emits turquoise light. ■ Release the control 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.

Filling the bathtub using the program memory

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.

Saving personal settings

Operating status	[OFF]
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). ■ 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. ■ Keep the control element pressed until the illuminated ring emits purple light. ■ Release the control element.
Result	<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

Operating status	[OFF]
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). ■ Keep the control element pressed until the illuminated ring emits dark blue light. ■ Release 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 25).</p>

Returning all settings to factory settings

Use this function to reset all settings to delivery state (see [Chapter 3.3.1 'Factory settings'](#) on page 25).

Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Keep the control element pressed until the illuminated ring emits dark blue light for the second time. ■ Release the control element.
Result	<p>The illuminated ring flashes twice to confirm successful reset.</p> <p>You have returned all settings to factory setting.</p>

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

Operating status	OFF
Action	<ul style="list-style-type: none"> ■ Keep the control element pressed until the illuminated ring emits blue light for the first time (after approx. 2 seconds). ■ Release the control element.
Result	The drain valve opens or closes.

3.3.7 Using the function lock

Enabling/disabling the function lock

While the function lock is enabled, the functions "Thermal disinfection" and "Reset to factory settings" are blocked. The function lock serves as a child protection or safeguard against unauthorised use.

Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Keep the control element pressed until the illuminated ring emits turquoise light. ■ Release the control element.
Result	<p>The control element flashes once: Functions are available.</p> <p>The control element flashes twice: Functions are blocked.</p>

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 element, for example, without accidentally triggering a function.

Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Keep the control element pressed until the illuminated ring emits green light. ■ Release the control element.
Result	The control element is disabled for 45 seconds. For this period of time, the illuminated ring emits green light.

You can disable the care mode before expiry of the 45 seconds by pressing the control element once more until the illuminated ring goes out.

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.
- 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.

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.

Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Keep the control element pressed until the illuminated ring emits red light. ■ Release the control element.
Result	<p>Thermal disinfection starts.</p> <p>During thermal disinfection, the illuminated ring of the control element flashes red as a warning.</p> <p>To interrupt thermal disinfection, press the control element once.</p>

3.3.9 System diagnosis and statistics

Using the diagnosis mode

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

Operating status	[OFF]
Action	<ul style="list-style-type: none"> ■ Keep the control element pressed until the illuminated ring emits orange light. ■ Release the control element.
Result	The automatic system diagnosis starts.

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

Display during analysis:

- Illuminated ring inactive: automatic adjustment of the valves
- Illuminated ring red: hot water valve opens fully (caution: risk of scalding!)
- Illuminated ring green: hot water valve closes fully
- Illuminated ring blue: cold water valve opens fully
- Illuminated ring inactive: cold water valve closes fully

Indication of the findings

After completion of all analysis steps, the illuminated ring of the control element indicates the findings.

The following findings can be displayed:

- Illuminated ring flashes amber twice: device functions properly
- Illuminated ring flashes amber three times: temperature sensor defective – check the connection and replace
- Illuminated ring flashes amber four times: flow sensor defective – check the connection and replace

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
	Control element (TLI) 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 26</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
	Flowthrough heater not connected	Check or establish the connection
	Temperature sensor not connected or defective	Carry out the "System diagnosis" function ↻ <i>'Using the diagnosis mode' on page 32</i>
	Motor for temperature control not connected or defective	Carry out the "Diagnosis" function ↻ <i>'Using the diagnosis mode' on page 32</i>
	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

Error	Cause	Troubleshooting
	Failure of mains power supply	Check the terminal box
	Mains adapter not connected to control	Connect 2-pole plug with control electronics
	Control unit (TLI) 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" ↻ <i>'Returning all settings to factory settings'</i> on page 29
Constant water flow	Motors not calibrated	Carry out the "Diagnosis" function ↻ <i>'Using the diagnosis mode'</i> on page 32
	Valves do not close	Carry out the "Diagnosis" function ↻ <i>'Using the diagnosis mode'</i> on page 32
The water is turned off after a certain period of time.	On-time limit reached	The maximum inlet time is 45 minutes.
	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 29
The illuminated ring of the control element flashes green every 2 seconds.	Care mode active	Wait for 45 seconds, or press the control element until the green light goes out
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

Error	Cause	Troubleshooting
	The control unit is defective	Replace the control unit
	The rotating knob does not turn smoothly	Remove and clean the rotating knob

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 36.

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 36.

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:

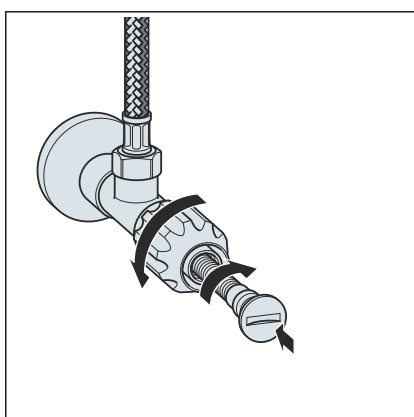
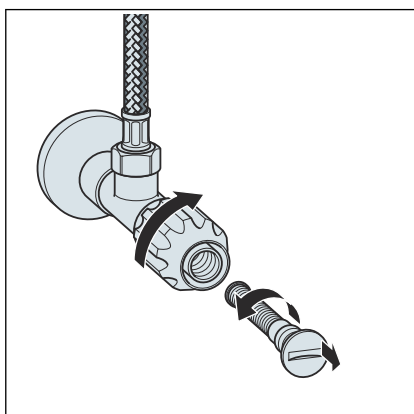
- after the bathtub has not been used for 72 hours, see ↪ *'Regulations from section: Maintenance' on page 6*
- otherwise after 7 days at the latest, see ↪ *'Regulations from section: Maintenance' on page 6*

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.

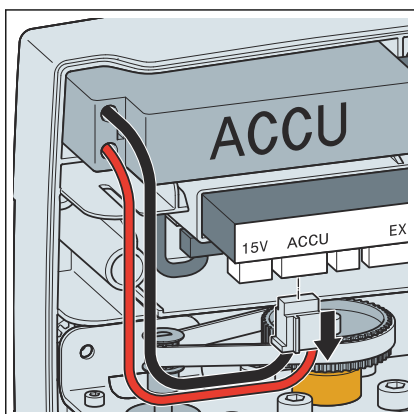
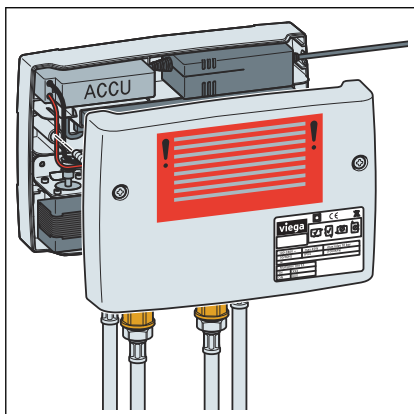
3.5.4 Replacing the rechargeable battery



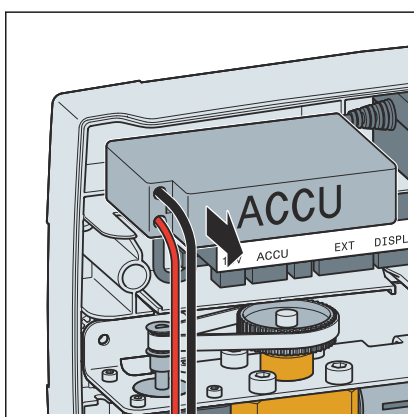
Viega recommends replacing the battery every 3–5 years, depending on use. If the rechargeable battery is not sufficiently charged (e.g. due to age), the mixing unit will close and can no longer be used.

Requirements:

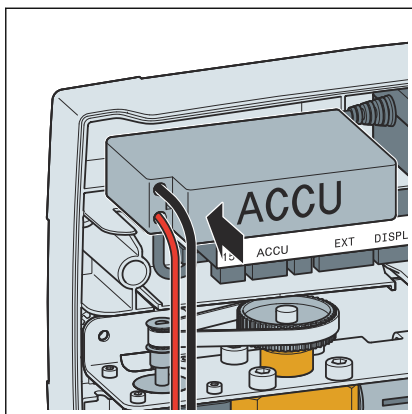
- The mixing unit is accessible (e.g. through a revision opening).
- The lid of the mixing unit can be removed.
- A spare battery is available.
- Loosen the screws of the casing cover and store them.
- Remove the casing cover.



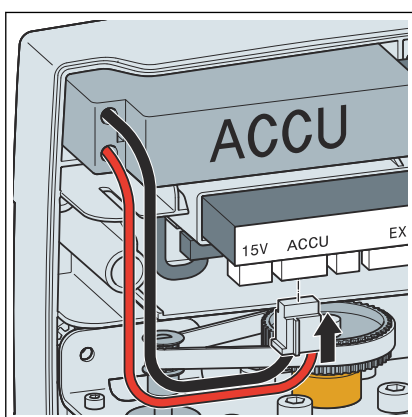
- Pull the plug straight out of the control.



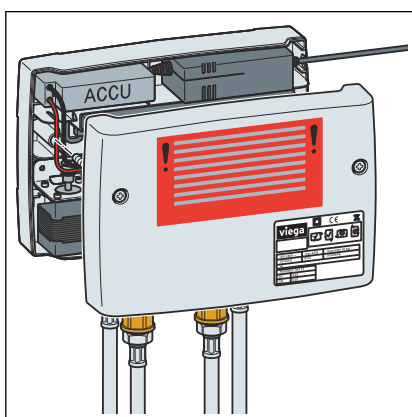
- Remove the rechargeable battery from the mixing unit and dispose of it properly.



- 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.



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