

Instructions for Use

WC flush actuation



for concealed cistern 2H, combination with WC flush plates
Visign for Public 1, Visign for Style 10, 13, 14 and Standard, flush
actuation via on-site potential-free contact

Model
8350.31

Year built (from)
05/2012

viega

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1 About these instructions for use

Trade mark rights exist for this document, further information can be found at viega.com/legal.

1.1 Target groups

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

- Heating and sanitary professionals and trained personnel
- Qualified electricians
- Operators
- Consumers

It is not permitted for individuals without the abovementioned training or qualification 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 against possible life-threatening injury.



WARNING!

This symbol warns against possible serious injury.



CAUTION!

This symbol warns against possible injury.



NOTICE!

This symbol warns against possible damage to property.



Notes give you additional helpful tips.

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. National regulations can be found on the relevant web site of your country at viega.com/standards.

Regulations from section: Fields of application / Mounting conditions

Scope / Notice	Regulations applicable in Germany
suitable masonry walls	EN 1996-1-1
Protection area for installation of the power pack in shower and bath rooms	VDE 0100-701

Regulations from section: Technical data

Scope / Notice	Regulations applicable in Germany
Electrical approvals	EN 60950
Electrical approvals	EN 60335
Electrical approvals	EN 61558

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 electrics may only be carried out by trained electricians.

2.3 Intended use

2.3.1 Areas of use

WCs in barrier-free sanitary rooms should be equipped with flush actuators that can be easily reached by users and carers. For this purpose, the flush plate of the WC can be combined with a radio-controlled or cabled sensor using an electronic flush actuation. A sensor such as this can be fitted on e. g. the handles of the WC or in any position in the room.



An electrical connection must be planned for the electronic actuation in the area of the cistern when planning.

Only the large flush volume can be actuated with electronic actuation.

Hygiene+ function

Flushes can be actuated at certain times via the Hygiene+ function to prevent stagnation in the drinking water lines.

Suitable cisterns

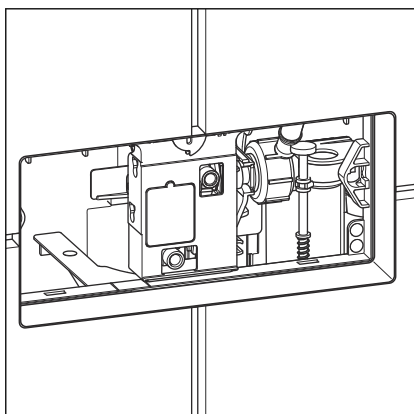
Installation is only possible in the following Viega concealed cisterns:

- Cistern model 2H

Ascertain which model is installed before mounting. The following information will help you to determine the model of the cistern installed:

Cistern 2H

The revision shaft of this cistern is found at a height of approx. 1 metre on the front.



Suitable manual flush plates

Mounting of the electronic flush actuation is only possible with the following WC flush plates:

Product range	Name within the product range	Model number
Standard	1	8180.1
Visign for Public	1	8326.1
Visign for Style	10, 13, 14	8315.1, 8333.1, 8334.1

2.4 Product description

2.4.1 Overview

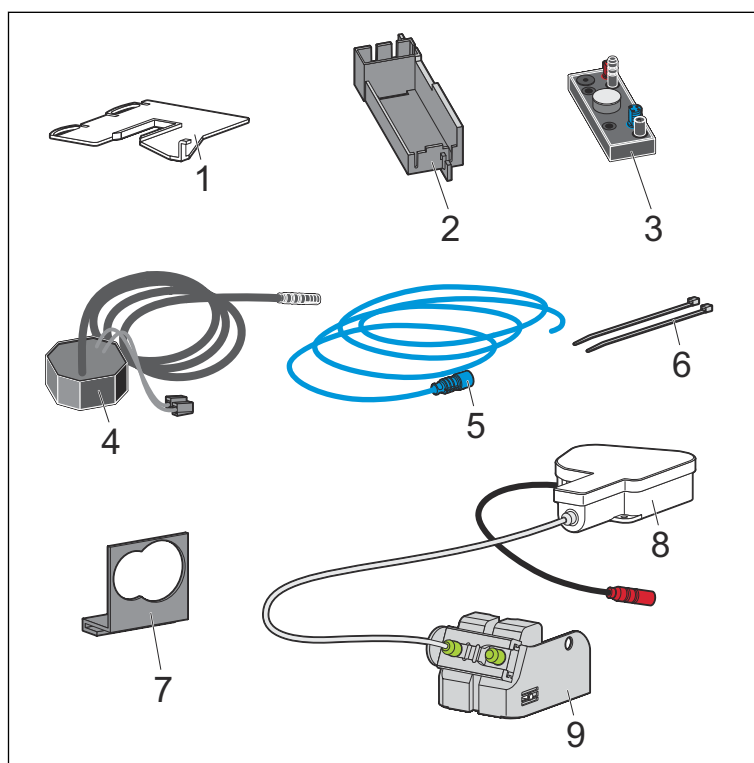


Fig. 1: Scope of delivery

- 1 fixing panel for motor
- 2 holder for control (for cistern 2H)
- 3 Control
- 4 power pack 230 V
- 5 connection cable external button
- 6 cable tie
- 7 holder for battery compartment
- 8 drive unit
- 9 Bowden cable unit

2.4.2 Technical data

The product has the following technical data:

Flush volume

The flush volumes for the **manual flush actuation** are:


- Small flush volume: 3–4 litres
- Large flush volume: 6–9 litres

With **electronic actuation**, only the large flush volume of 6 or 9 litres can be actuated.

Electronics

Input (power pack)	100–240 V AC, 50–60 Hz, 180 mA
Output (power pack)	6.5 V DC, 920 mA



Electrical approvals see section  'Regulations from section: Technical data' on page 5.

Hygiene+ function

Intervals	24 / 72 / 168 hours
Hygiene flush volumes	6 / 9 litres

2.4.3 Operating mode

Electronic actuation of a flush

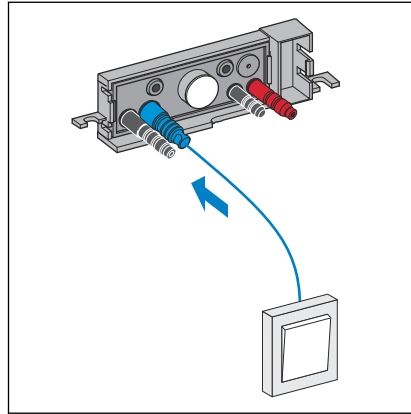


Fig. 2: Actuation of the flush via an external sensor

A signal is sent to control the flush actuation through an external sensor, e. g. a button or photo sensor.

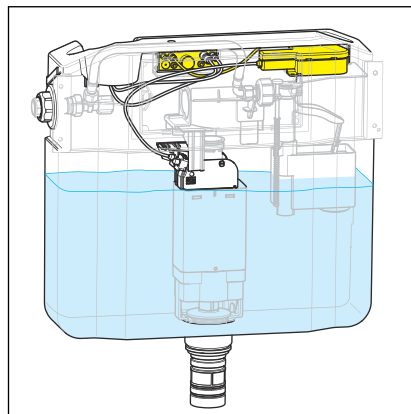


Fig. 3: Signal transmission from the control to the motor

The control transmits the electronic signal to the drive unit.

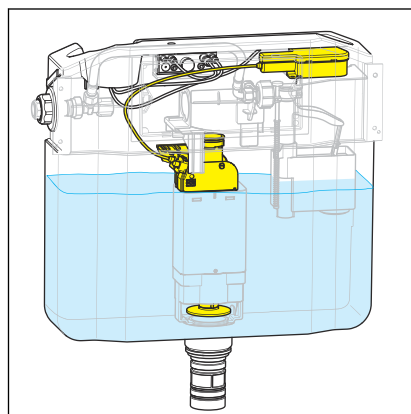


Fig. 4: The motor operates the Bowden cable

The motor opens the drain valve via the Bowden cable.

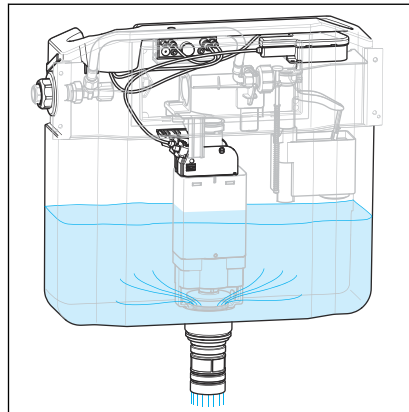


Fig. 5: The water flows into WC via the open drain valve

As long as the drain valve is open, the set flush volume will flow into the WC.

Hygiene+ function

Stagnation can lead to the build up of germs (e. g. legionella) in drinking water pipes. It is important to rinse the pipeline regularly to prevent the build up of bacteria. The Viega Hygiene+ function was developed for this reason.

Flushes can be actuated at certain times with the Hygiene+ function. Interval and flush volume will be set as required and saved by the control. All settings remain saved during a power cut.

2.4.4 System expansions

The system's range of functions can be expanded through the connection of accessories onto the control.

Radio controlled actuation

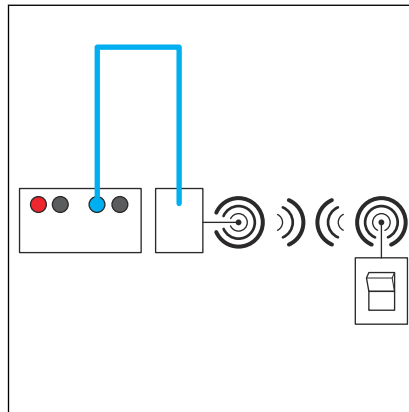
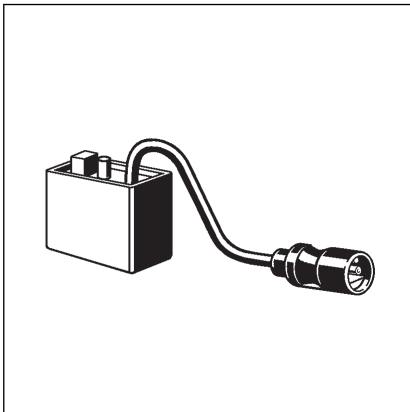


Fig. 6: Connection of the radio receiver

One requires the following accessories to be able to connect a radio receiver – instead of a cable-connected external sensor – as shown:

Signals to actuate the flush (e. g. on support hinged handles) sent by HEWI radio transmitters can be received by the radio receiver model 8350.35.



Additional external sensors

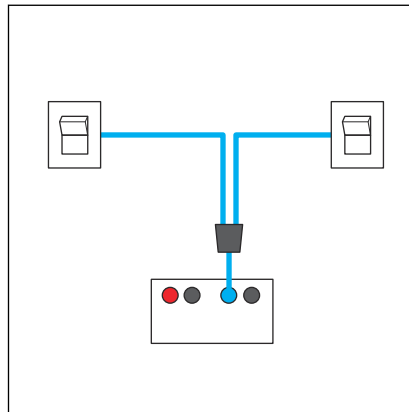
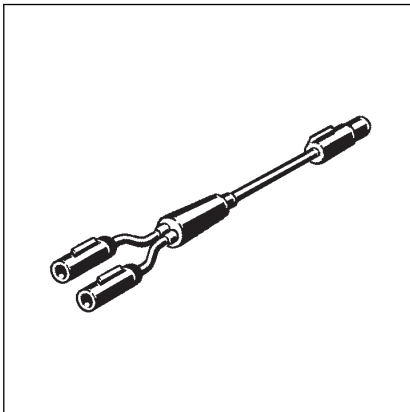
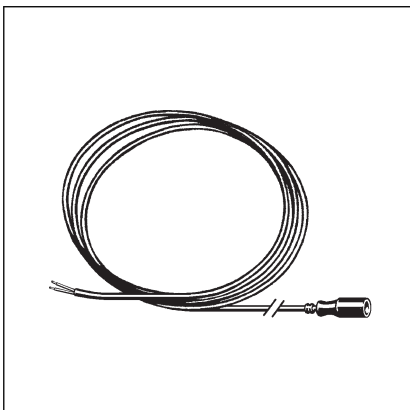


Fig. 7: Connection of a second external button

One requires the following accessories to be able to connect an additional external sensor as shown:



Multiple sensors can be connected at the same time using the extension cable adapter model 8350.36. This is how e. g. two external, cable-connected buttons can be connected.



Additionally required: 1 connection cable sensitive.

Buttons, switches or photo sensors for actuating the flush can be connected to the control on site via the connection cable sensitive model 8355.90.

Additional radio controlled actuation

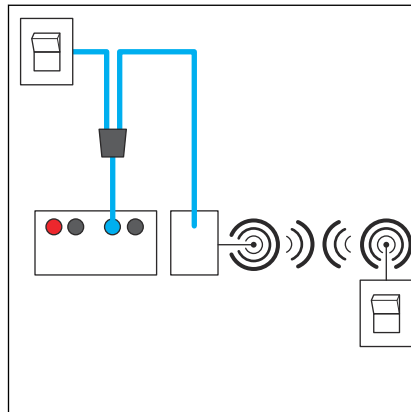
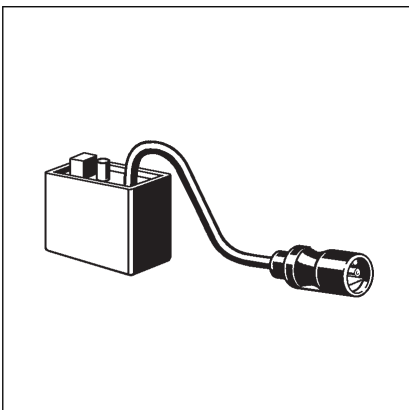
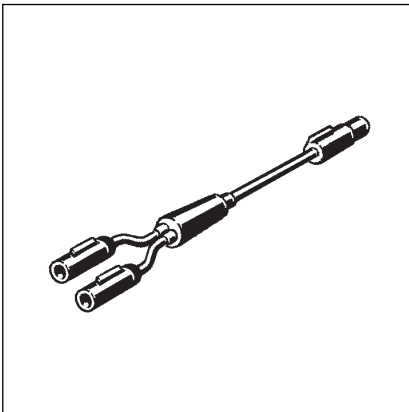


Fig. 8: Connection of radio and cable sensors

One requires the following accessories to be able to connect a radio controlled actuator alongside an external sensor as shown:

Multiple sensors can be connected at the same time using the extension cable adapter model 8350.36. This is how e. g. a button can be combined with a radio controlled actuation.



Signals to actuate the flush (e. g. on support hinged handles) sent by HEWI radio transmitters can be received by the radio receiver model 8350.35.

Redundant power supply

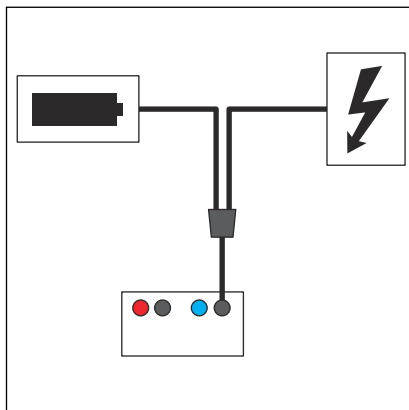
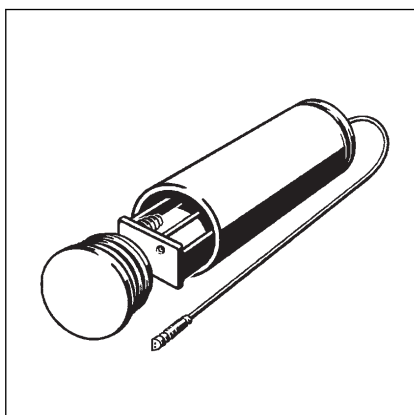


Fig. 9: Connection of the redundant power supply

To create a redundant power supply with an additional battery compartment as shown, you will need the following accessories:

The battery compartment can be connected for a redundant power supply using the adapter model 8355.91. The battery compartment is included in the adapter's scope of delivery.



2.4.5 Setting options

Flush settings



For electronically actuated flush cycles (including Hygiene + flushes), only large flush volumes of 6 or 9 litres can be actuated for technical reasons although the programming also provides for smaller flush volumes. If smaller flush volumes are set, the flush is always actuated with the smallest flush volume of 6 litres.

Flush volume

This criterion relates exclusively to the flush volume for flush cycles actuated electronically. The flush volume for hygiene flushes is set separately.

The following settings are possible:

- 4.5 litre flush volume (the flushes are always with the smallest flush volume of 6 l) for technical reasons
- 6 litre flush volume (factory setting)
- 9 litre flush volume

The Hygiene+ interval

The following settings are possible:

- Hygiene+ function deactivated (factory setting)
- Hygiene flush 24 hours after the last use
- Hygiene flush 72 hours after the last use
- Hygiene flush 168 hours after the last use

Hygiene+ flush volume

The following settings are possible:

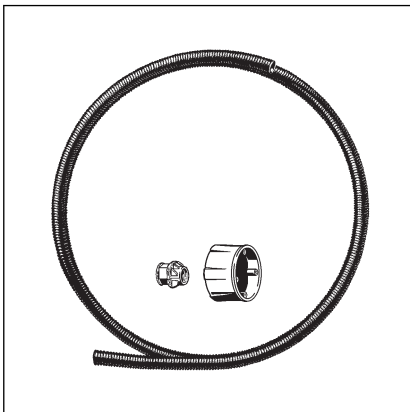
- Hygiene+ flush volume 3 litres (factory setting) (For technical reasons, the flushes occur with the smallest possible flush volume of 6 l)
- Hygiene+ flush volume 6 litres
- Hygiene+ flush volume 9 litres

2.5 Accessories

Required accessories

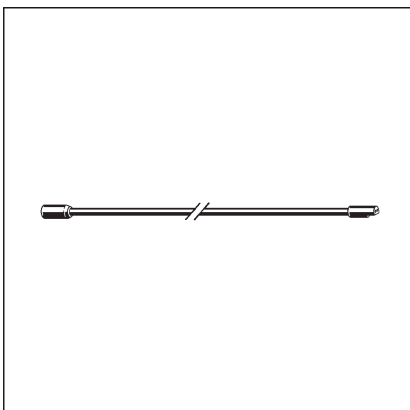
You require a flush plate so that the flush can be actuated directly at the WC. The Viega models that can be used are found at [↗ 'Suitable manual flush plates'](#) on page 7.

Optional accessories



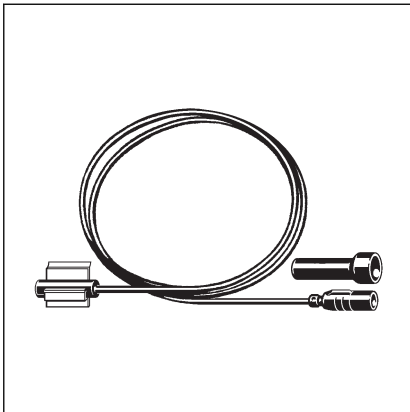
Installation set

The set model 8350.14 contains a hollow wall socket to house the power pack and an empty pipe with the right clip to connect the cistern (2H).



Extension cable

2 metre cable model 8352.690 for the extension of the power supply to a maximum of 4.75 metres in length.



Programming set

This programming set is required to change the flush setting or activate the Hygiene+ function. It contains a connection cable with a programming contact and a magnetic pin. The programming contact is mounted behind the panel and connected to the blue terminal on the control. The programming can then take place using the magnetic pin.

3 Handling

3.1 Assembly information

3.1.1 Mounting conditions

The model may only be used for the models mentioned in [Chapter 2.3.1 'Areas of use' on page 6](#).

Installation position of the power pack

The power pack should be mounted in an easily accessible place to allow subsequent access.

Before beginning to tile, a concealed socket should be installed for the power pack with protective pipe to the cistern (installation set ['Optional accessories' on page 15](#)).

If necessary, the power pack cable can be extended to a length of 4.75 metres (two extension cables ['Optional accessories' on page 15](#)).

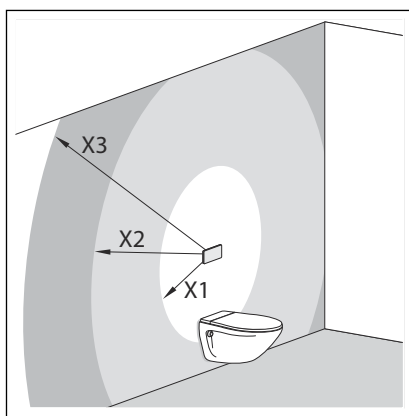


Fig. 10: Installation position of the power pack

X1 max. 0.75 m

X2 max. 2.75 m with an extension cable (article number 628 505)

X3 max. 4.75 m with two extension cables (article number 628 505)



An extension of the mains supply by more than 5 metres can lead to a situation in which the power is not sufficient to actuate the flush.

Protected zone

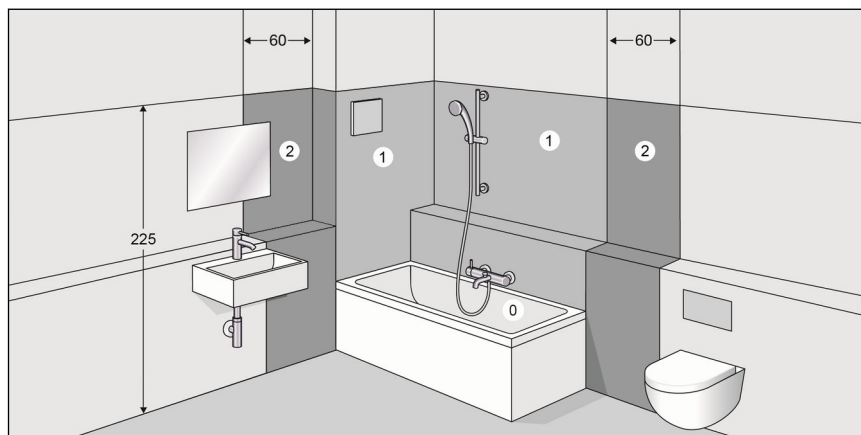


Fig. 11: Protected zones

According to the applicable regulations, installation of the power pack in the protected zones 0 and 1 of shower rooms and bathrooms is not permitted, see [☞ 'Regulations from section: Fields of application / Mounting conditions' on page 5.](#)

Viega recommends installing the power pack outside of the protected zones 0-2.

External sensors (optional)

If external sensors are to be connected to the control, their connection cables or empty pipes must be laid in the cistern before tiling is begun.

3.1.2 Required material and tools

Material

The following material is required for mounting:

- a suitable flush plate [☞ 'Suitable manual flush plates' on page 7](#)
- Programming set [☞ 'Optional accessories' on page 15](#)
- if necessary, empty pipe from power pack into the cistern
- if necessary, accessories for the extension of the system [☞ Chapter 2.4.4 'System expansions' on page 10](#)

Tool

The following tools are required for mounting:

- flat screwdriver
- spanner (SW 19)
- knife (cutter)

3.2 Assembly

3.2.1 Mounting the power pack



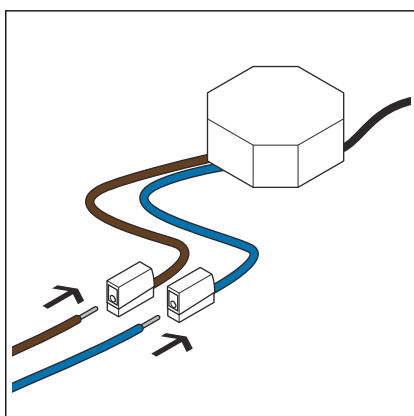
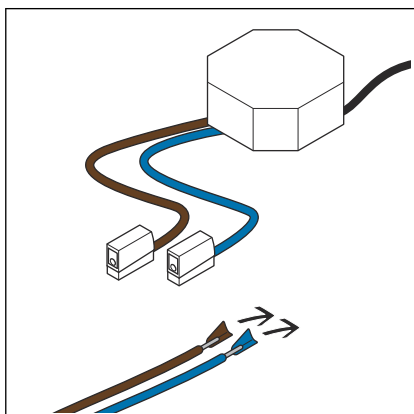
DANGER! **Danger due to electrical current**

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:

- A 230 V mains connection is available on site.
- The installation position of the power pack complies with the requirements in acc. with ⚡ 'Installation position of the power pack' on page 17.
- The connection cable is de-energised.
- Remove approx. 1 cm of the insulation on the connection cable.

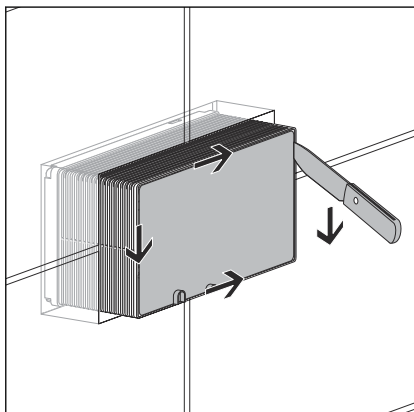


- Push the connection cable into the terminals.

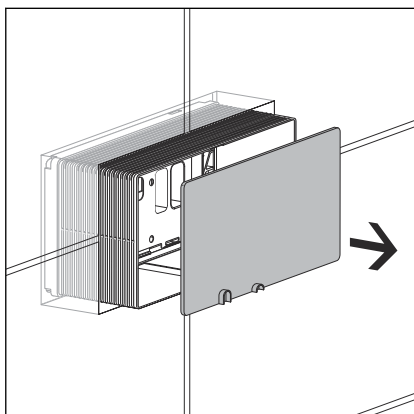
3.2.2 Preparing the installation

Requirements:

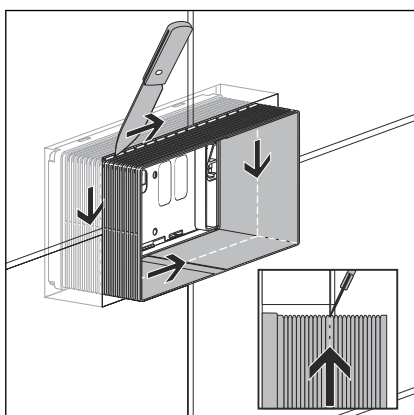
- The cistern is fitted into the pre-wall.
- If external sensors are to be connected, the cables must be laid through to the cistern.
- The electrical connection is laid all the way into the cistern.
- The pre-wall is tiled.
- Cut into shaft cover.

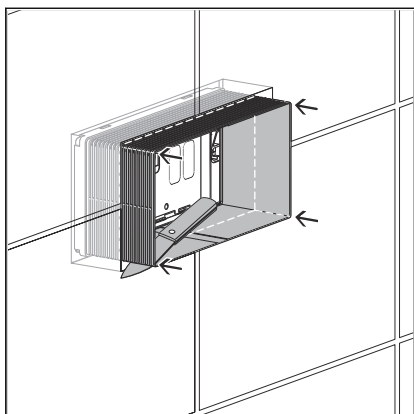


- Remove shaft cover.

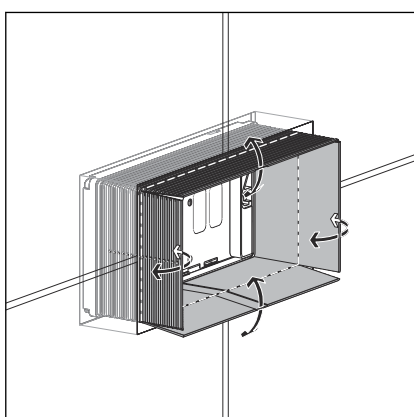


- Score the revision shaft along the edge of the tiles with a knife. Angle the knife to do this so that the cut is made flush to the surface of the wall.

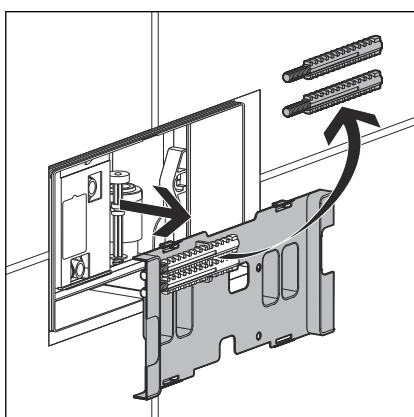




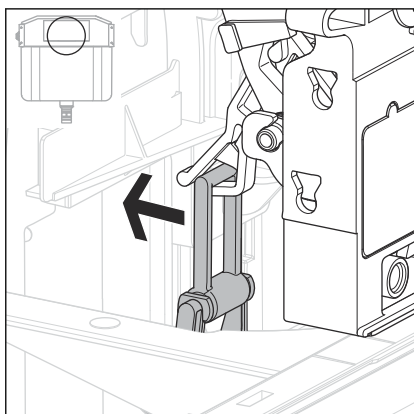
- Cut the corners of the revision shaft vertically through to the wall surface.



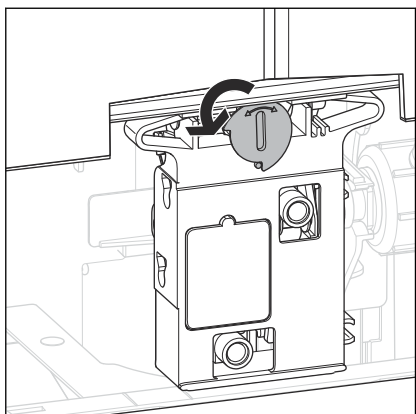
- Bend out and pull down the sides of the revision shaft.
The edge of the revisions shaft must be flush with the wall surface.



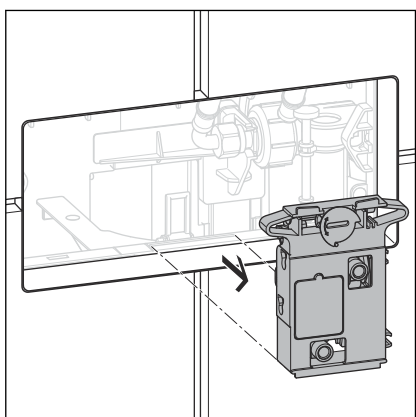
- Remove cistern cover.
- Remove and keep the threaded bolts from the cistern cover.
- Dispose of cistern cover.



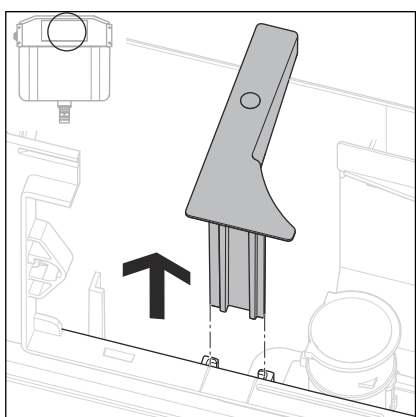
- Press the bow backwards from the mounting of the mechanism.



- ▶ Turn the mechanism's lock by 90° in an anti-clockwise direction.
- ◻ The mechanism is unlocked and can be removed.



- ▶ Remove and keep mechanism.

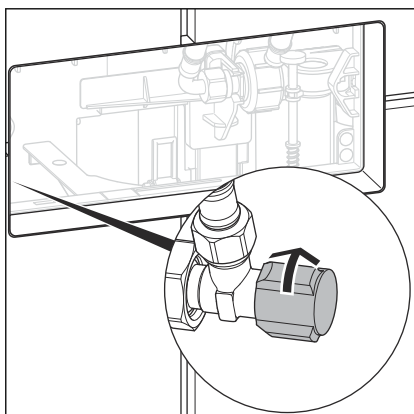


- ▶ Remove and keep spacer.

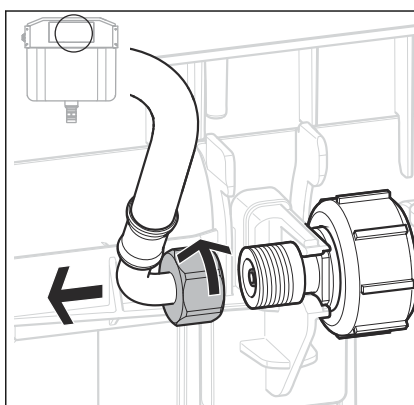
3.2.3 Mounting the flush actuation (cistern 2H)

Requirements:

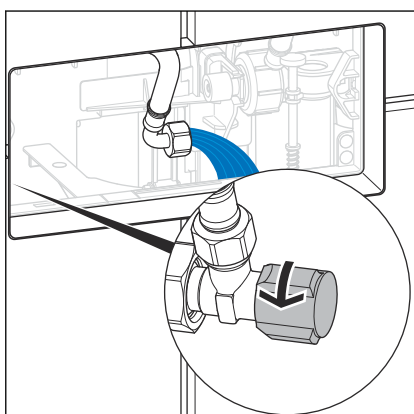
- The revision shaft is shortened in such a way that it is flush with the upper edge of the tiles.
- Mechanism and spacer are removed.
- Close corner valve.



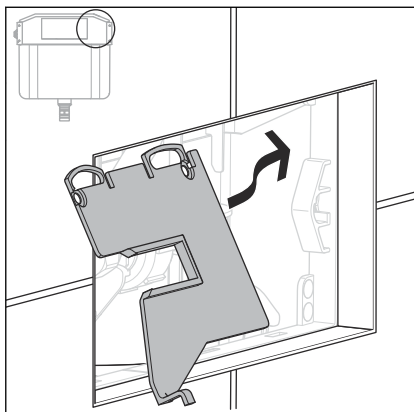
- Loosen flexible hose on the filling valve (size 19).



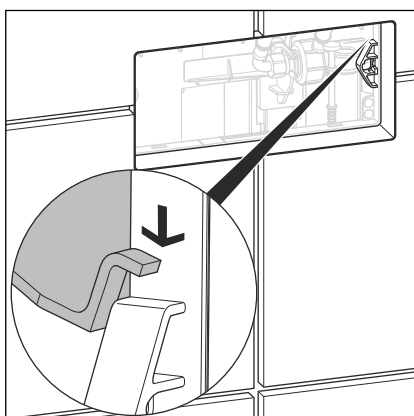
- Open the corner valve for a few seconds to rinse the pipe.
- Re-close corner valve.



Mounting the drive unit

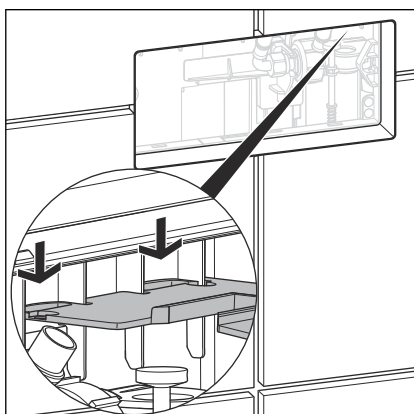


- Lead the panel into the cistern at an angle.



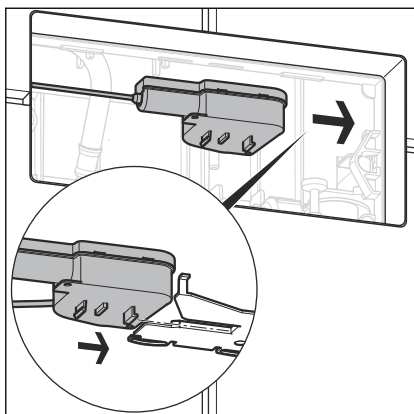
- Align the right side of the holding panel with the shaft frame of the cistern.

The hook on the right side of the holding panel must be positioned on the projection of the shaft frame.

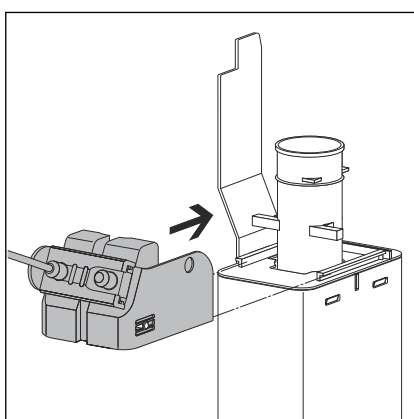


- Align the holding panel horizontally.

The bow on the left side of the holding panel must be firmly positioned between the vertical fins of the back wall.

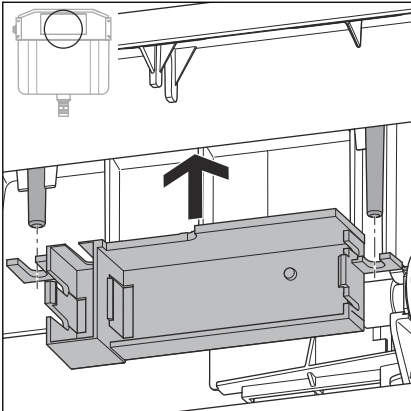


- Push the drive unit onto the holding panel.
The drive unit must be secure in the guiding rail.

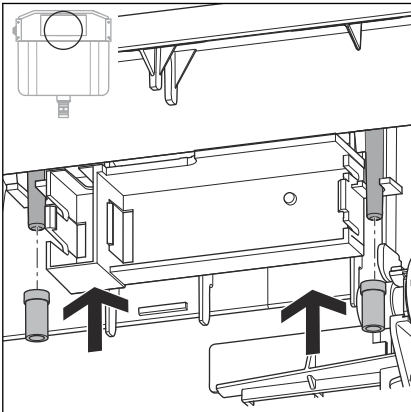


- Push the Bowden cable unit onto the drain valve from the left.
The Bowden cable unit must be felt to click into place on the drain valve.

Mounting the holder for control



► Position the holder on the domes.

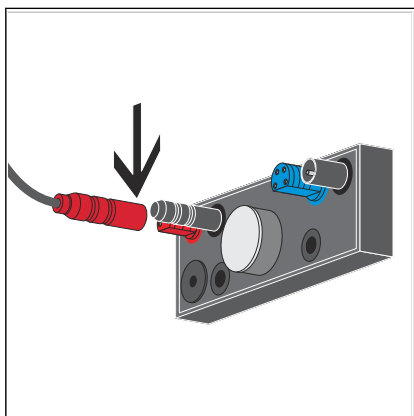


► Push rubber plugs onto the dome to secure the holder.

Connecting the control

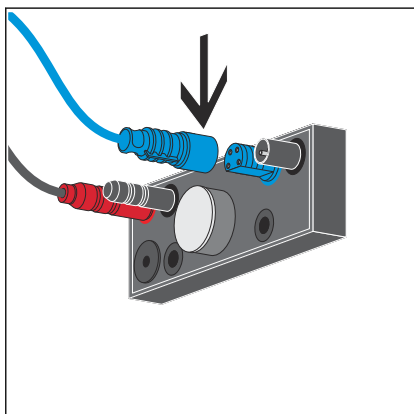


Observation of the prescribed connection sequence is required. The power supply must always be connected last, to ensure that all of the connected components function.



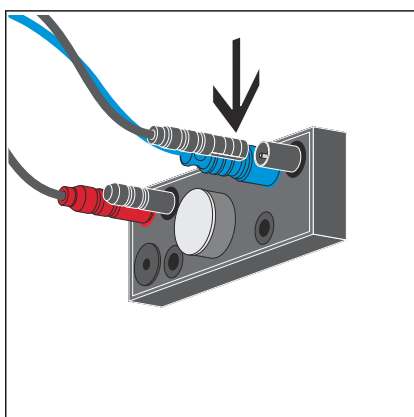
INFO! Mounting is much easier if the plug is inserted into the control outside of the cistern.

- Connect the red plug of the Bowden cable unit motor to the red connection of the control.



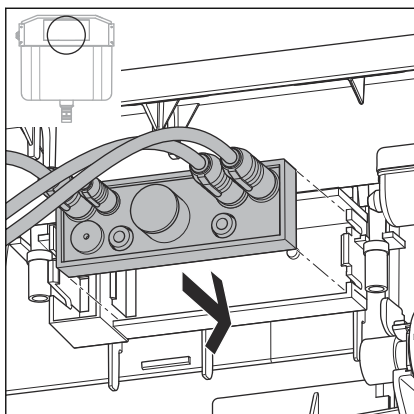
- Connect the blue connection cable from the sensor to the blue connection of the control.

Also observe section ↗ **Chapter 3.2.4 'Connecting external sensors'** on page 32.



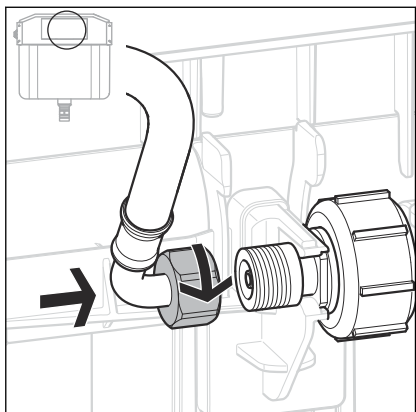
- Connect the black cable of the power supply to the outer right connection of the control.

INFO! Settings for the control can also already be made at this point. The programming set is easier to connect if the control is not yet installed in the cistern. ↗ **Chapter 3.3 'Commissioning'** on page 33

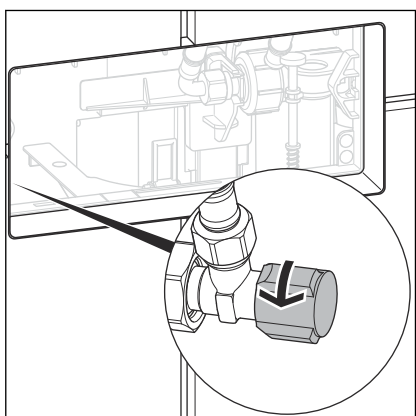


- Insert the control into the bracket in the cistern.
- Fit the cable into the upper part of the cistern and fix with the cable ties supplied. The cable must not obstruct any moving parts in the cistern.

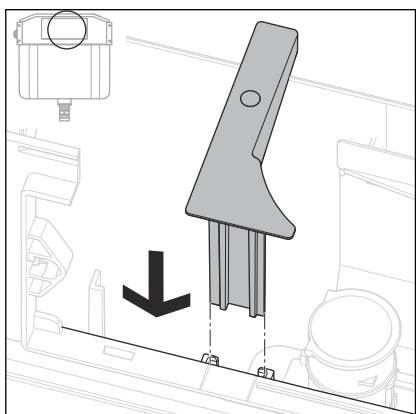
Connecting the water supply pipe



➤ Connect the flexible hose onto the filling valve.

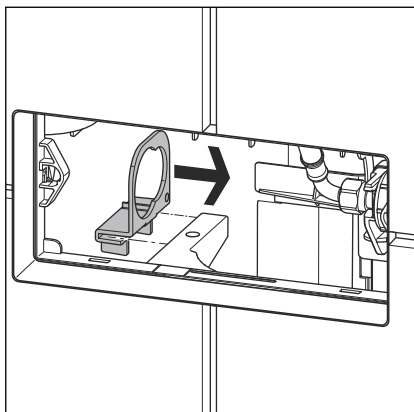


➤ Open corner valve.

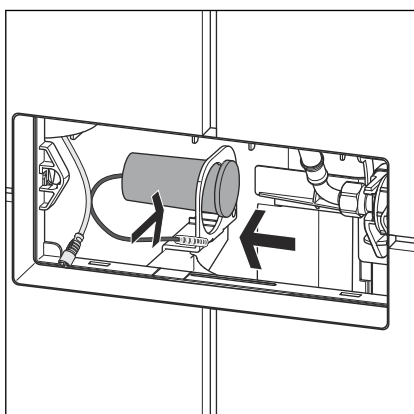


➤ Insert spacer.

Mounting the battery compartment (optional)



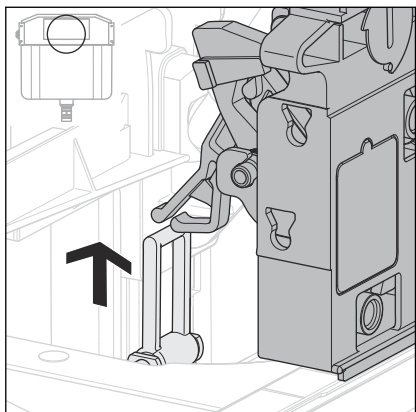
- Push the holder for the battery compartment onto the spacer from the left.



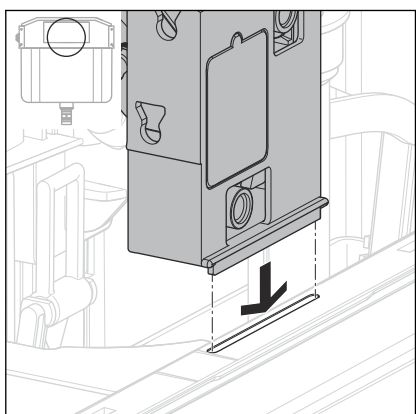
- Push the battery compartment through the large opening into the holder.
- Push the battery compartment into the smaller opening.

The battery compartment must be clicked into place directly behind the cover in the holder.

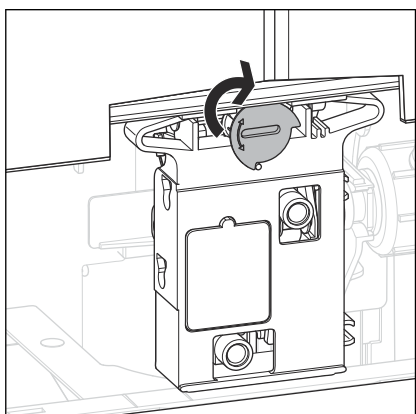
Mounting the mechanism



- ▶ Hang the mechanism in the bow of the drain valve.



- ▶ Insert mechanism.
The mechanism must sit exactly in the recesses of the cistern.



- ▶ Turn the mechanism's lock by 90° in a clockwise direction.
□ The mechanism is locked.



As the next step, fitting of the flush plate as per the instruction manual supplied.

3.2.4 Connecting external sensors



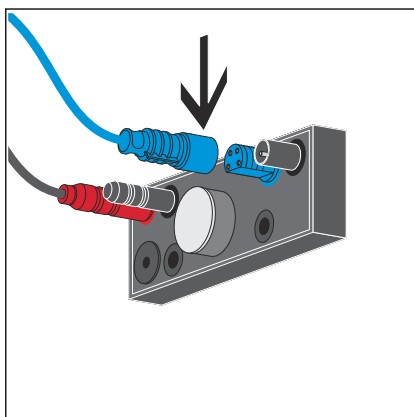
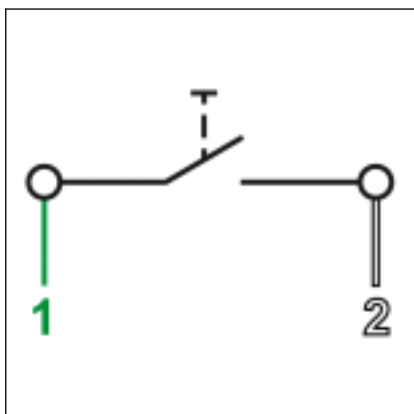
NOTICE!
Damage to property due to excess voltage

If you apply voltage to the connection cable for the external button, you will damage the control.

- Do not apply any external voltage!

Requirements:

- Button with locking function or potential-free contact (closure time at least 350 ms) available
- Connection cable model 8355.90 available
- Connect the contact to actuate the large flush volume between the green (1) and white cable (2).
- Isolate the brown cable.



- Connect the connection cable to the control.

3.3 Commissioning

3.3.1 Setting the flush

Programming lock

Programming the control can be carried out for 30 minutes after the supply voltage is applied. The control returns to normal operation after 30 minutes – programming is now blocked. If the settings have to be changed after this time, the control must be disconnected from the power supply for at least 10 seconds.

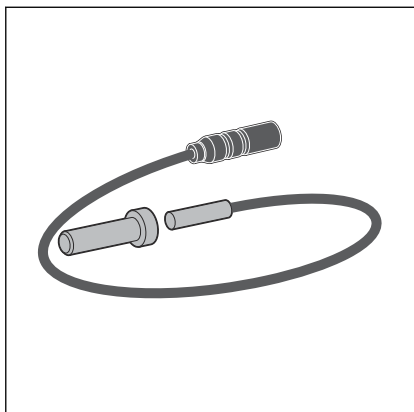


The programming set required to program the device is not included in the scope of delivery. It can be purchased separately as accessory. ↪ *'Optional accessories'* on page 15

Observe the following features during programming:

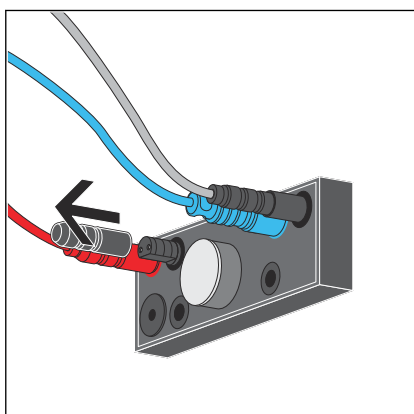
- Only one value can be set per programming step.
- The settings are retained, even if there is an interruption in the power supply.
- The programming process can be cancelled without a change of the settings by holding the magnet key in front of the programming contact until no acoustic signal has sounded for more than two seconds.

Setting the flush volume

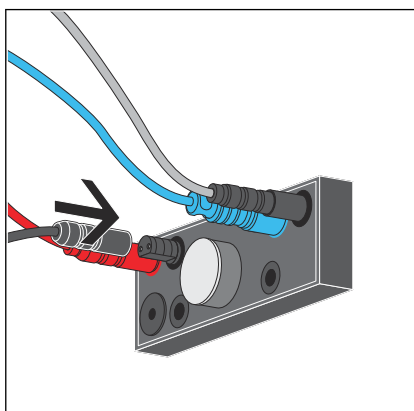


Requirements:

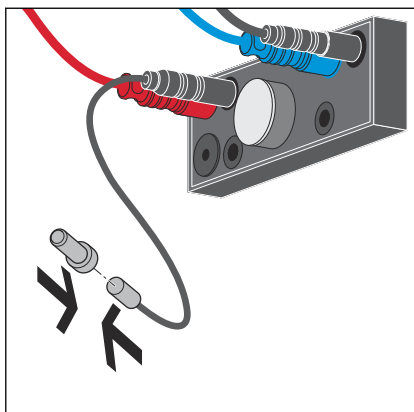
- The revision shaft is open and the control can be accessed.
- The programming lock of the control is not active.
- The programming set is available.



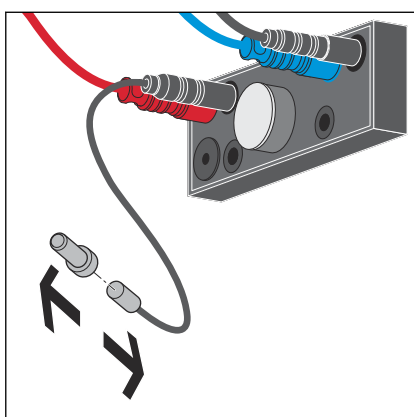
- Remove the protective cap of the programming connection from the control.



- Connect the cable of the programming contact to the control.



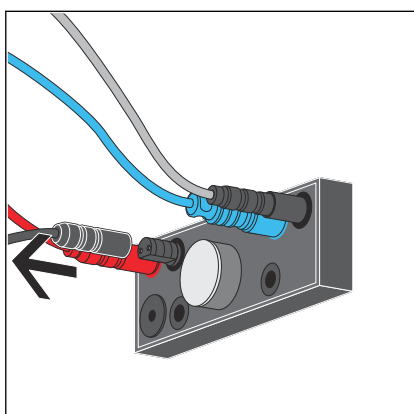
- Hold the magnetic key over the programming contact.
- In the following, signals sound to show which setting is active.



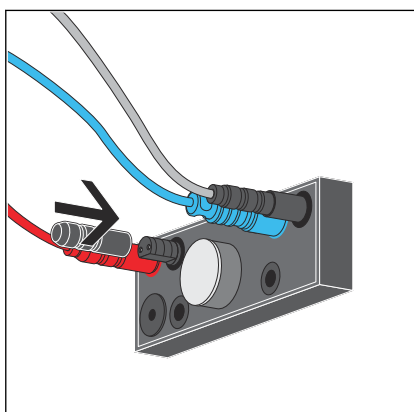
- Remove magnetic key to enable setting.
- The following values can be set by removing the magnetic key:

Remove magnetic key after	Setting
1st acoustic signal	Flush volume 6 l
2nd acoustic signal	Flush volume 6 l (factory setting)
3rd acoustic signal	Flush volume 9 l

- A double acoustic signal is sounded as confirmation. The setting has been changed successfully.



- Remove the cable of the programming contact.



- Place a protective cap onto the contact.

3.3.2 Setting Viega Hygiene+ function

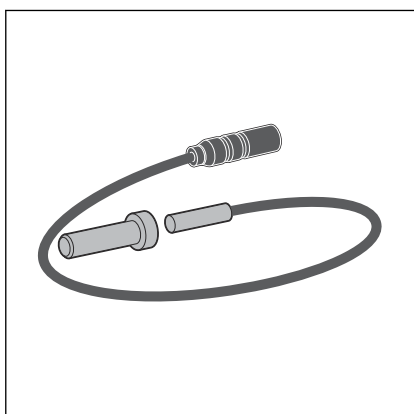
The Hygiene+ function is deactivated when delivered. If you wish to use the Viega Hygiene+ function, you must program the following settings.



The flush volume for the Viega Hygiene+ function can only be selected if the Viega Hygiene+ function has been activated by choosing a flushing interval.

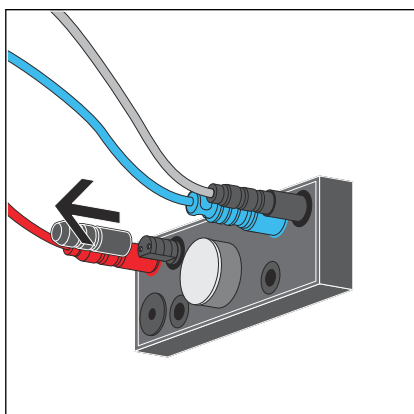
If no flush volume is selected after activating the Viega Hygiene+ function, the flush volume is set automatically to the minimum volume.

Setting the flush interval

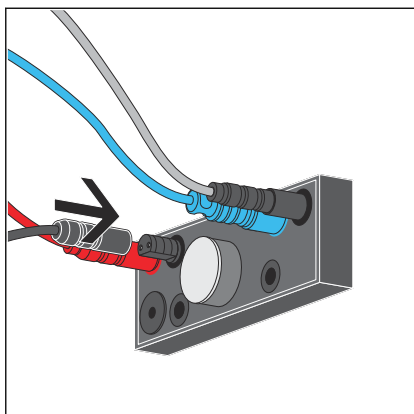


Requirements:

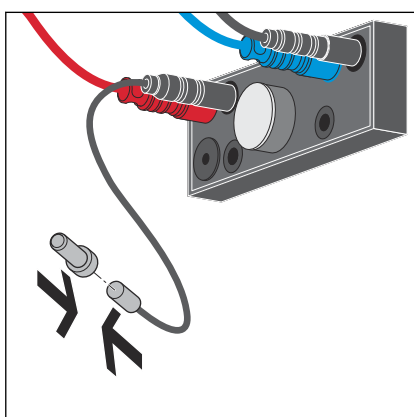
- The revision shaft is open and the control can be accessed.
- The control programming block is not active ☞ 'Programming lock' on page 33.
- The programming set is available.



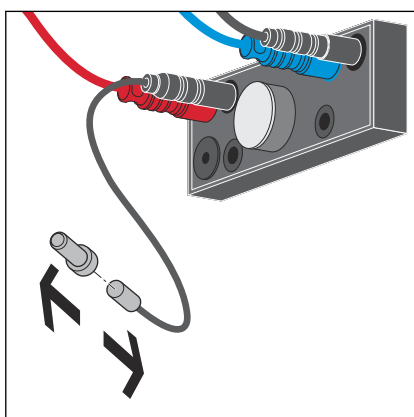
- Remove the protective cap of the programming connection from the control.



- Connect the cable from the programming contact onto the control.



- Hold the magnetic key in front of the programming contact.
 - ◻ In the following, signals sound to show which setting is active.



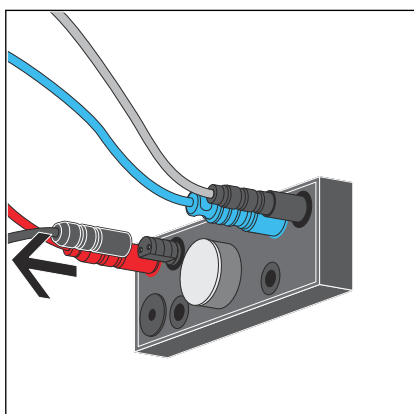
- Remove magnetic key to enable setting.

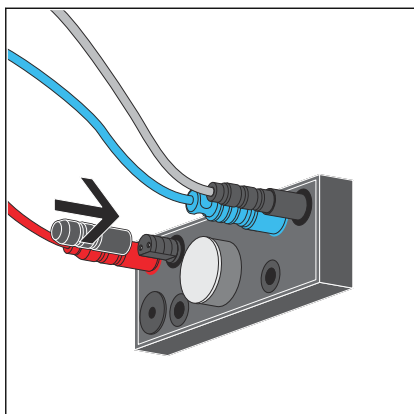
The following values can be set by removing the magnetic key:

Remove magnetic key after	Setting
8th acoustic signal	Hygiene+ flush volume 6 l (factory setting, if Hygiene+ is active)
9th acoustic signal	Hygiene+ flush volume 6 l
10. Acoustic signal	Hygiene+ flush volume 9 l

- ◻ A double acoustic signal is sounded as confirmation. The setting has been successfully changed.

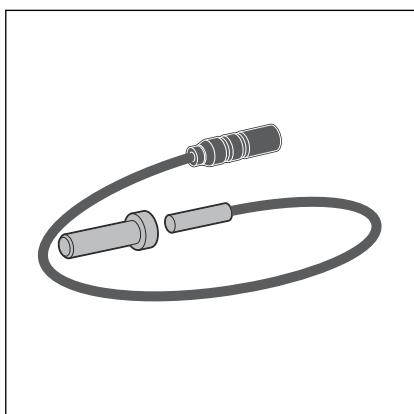
- Remove the cable of the programming contact.





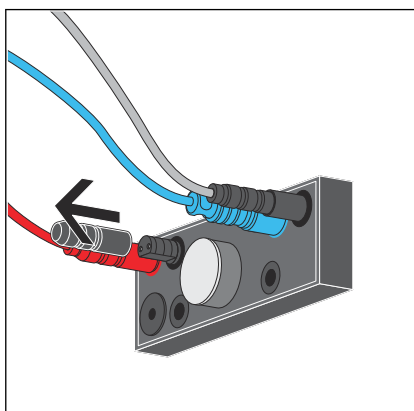
- Place a protective cap onto the contact.

Setting Hygiene+ flush volume

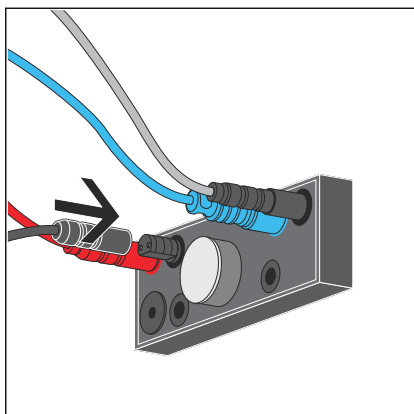


Requirements:

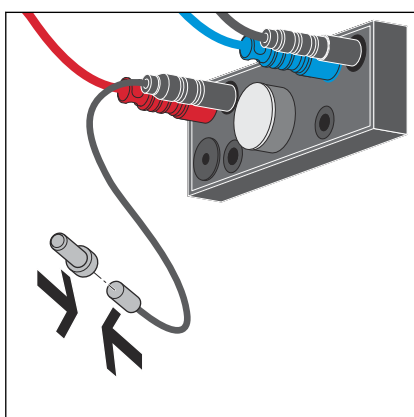
- The revision shaft is open and the control can be accessed.
- The programming lock of the control is not active ☞ 'Programming lock' on page 33.
- The programming set is available.
- The Hygiene+ interval is set.



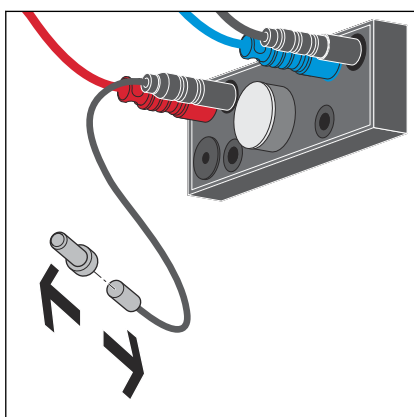
- Remove the protective cap of the programming connection from the control.



- Connect the cable from the programming contact onto the control.



- Hold the magnetic key in front of the programming contact.
 - ◇ In the following, signals sound to show which setting is active.

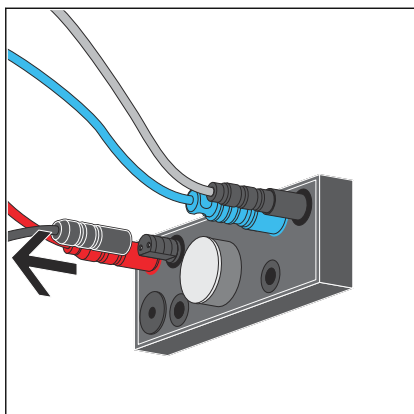


- Remove magnetic key to enable setting.

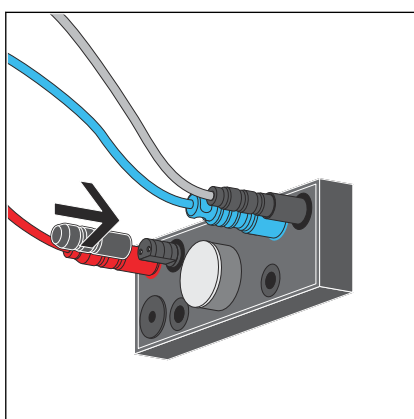
The following values can be set by removing the magnetic key:

Remove magnetic key after	Setting
4th acoustic signal	Hygiene flushing function: OFF (factory setting)
5th acoustic signal	Hygiene flush performed 24 hours after the last flush
6th acoustic signal	Hygiene flush 72 hours after the last use
7th acoustic signal	Hygiene flush 168 hours after the last use

- ◇ A double acoustic signal is sounded as confirmation. The setting has been successfully changed.



➤ Remove the cable of the programming contact.



➤ Place a protective cap onto the contact.

3.4 Faults, faults and remedy

Error	Cause	Remedy
WC does not flush	Power supply failure	Actuate manual flush
	Cistern is not yet completely full	Wait until the cistern is sufficiently full
	No water in cistern, corner valve is closed	Open corner valve
	Control defect	Replace control
	Plug connection power pack / control not made	Create plug connection ↗ 'Connecting the control' on page 27
	Plug connection drive unit / control not made	Create plug connection ↗ 'Connecting the control' on page 27
WC flush runs through	Dirty seal in filling valve	Check seal, replace if necessary
	Dirty seal in drain valve	Check seal, replace if necessary
	Plug sequence drive unit / control incorrect	Check plug connection, observe coloured marking ↗ 'Connecting the control' on page 27
manual actuation is not working	The mechanism is not connected to the bow	Hang the mechanism in the bow

3.5 Care and maintenance

3.5.1 Care tips

The flush actuation requires no care.



When maintaining the flush plate, heed the instructions of the flush plate manual.

3.5.2 Replacing the battery

Cistern 2H

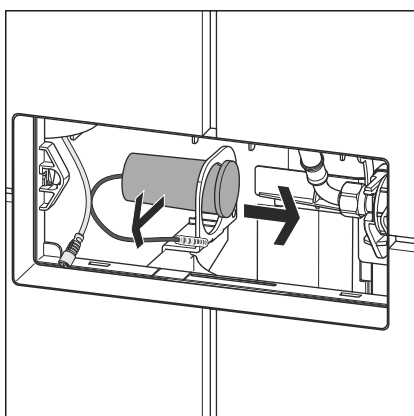


Only for use of a battery compartment for redundant power supply.

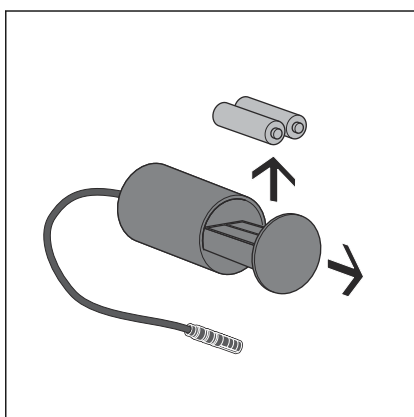
Requirements:

- The flush plate has been removed.
- The mechanism has been removed (compare [Chapter 3.2.2 'Preparing the installation'](#) on page 20).
- Free access to the cistern can be gained through the revision shaft.
- Remove battery compartment from the holder.

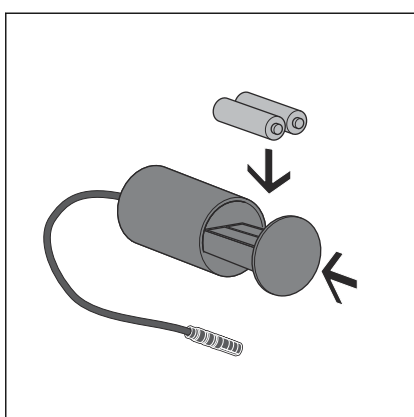
Press the battery compartment back into the fixture and pull it to the right.

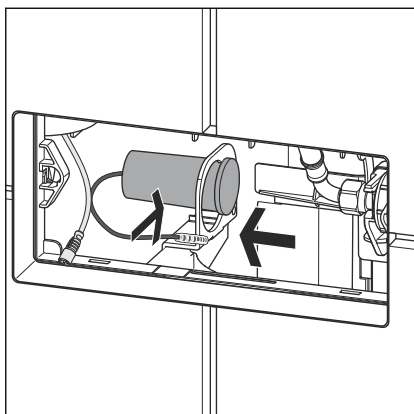


- Open battery compartment and remove flat battery.



- Insert new battery and close battery compartment.





- Push the battery compartment through the large opening into the holder.
- Push the battery compartment into the smaller opening.
The battery compartment must be clicked into place directly behind the cover in the holder.
- Replace and lock mechanism.
- Mount flush plate according to manual.

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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