

Wattmix

Wattmix control station with 2-pump technology

Installation and Operation Manual



Contents

1 Important basic information.....	3	6 Technical data	11
1.1 Limitation of liability	3	6.1 3-way mixer.....	11
1.2 Operator's responsibilities	3	6.2 3-way mixer with bypass 30	11
1.3 Documentation.....	3	6.3 Circulating pump.....	11
1.3.1 Content and structure.....	3	6.4 Characteristic curves	12
1.3.2 Notation concept used in the documentation	3	7 Decommissioning, recommissioning	13
1.4 Target group.....	3	7.1 Decommissioning	13
1.5 Replacing wear parts	3	7.2 Recommissioning	13
2 Safety	4	8 Dismantling and disposal	13
2.1 Important safety information.....	4	8.1 Dismantling.....	13
2.2 Correct use	4	9 Disposal	14
2.2.1 Area of use.....	4	9.1 Safety	14
2.2.2 Safety-related environmental conditions	4	9.2 Disposal	14
2.3 Compliance with the operating instructions	4	10 Warranty.....	14
2.4 Residual hazards and safety measures.....	4		
3 Overview of components.....	5		
4 Installation and first commissioning.....	6		
4.1 Safety	6		
4.2 Installation	6		
4.3 First commissioning	7		
5 Maintenance.....	8		
5.1 Safety	8		
5.2 Maintenance intervals	8		
5.3 Maintenance work.....	8		
5.3.1 Dismantling the 3-way mixer	8		
5.3.2 Fitting the 3-way mixer.....	9		
5.3.3 Dismantling the circulating pump.....	10		
5.3.4 Fitting the circulating pump.....	10		

1 Important basic information

1.1 Limitation of liability

The contents of these operating instructions have been created in accordance with applicable laws and standards. The device has been developed in line with the state of the technological art¹.

The manufacturer accepts no liability for damage resulting from:

- Failure to observe/comply with the operating instructions
- Deliberate misuse
- Incorrect use
- Use of untrained specialist personnel (for maintenance and repair work, etc.)
- Technical modifications to the device that have not been discussed with the manufacturer
- Use of spare parts that have not been approved by the manufacturer

1.2 Operator's responsibilities

The safety, accident prevention and environmental protection regulations applicable to the domain of the device's use must be complied with.

This particularly includes:

- The operator must ensure that these operating instructions are available throughout the Wattmix control station's lifetime.
- The operator must ensure that the maintenance intervals described in these operating instructions are complied with.
- The operator must regularly arrange a check of the functionality and intactness of all safety equipment.

NOTE Installation and operation of the Wattmix control station must comply with country-specific standards and guidelines.

1.3 Documentation

1.3.1 Content and structure

These operating instructions are part of this device. They contain instructions and information regarding the safe use of the device and must be made available to all users for the device's entire life cycle.

These operating instructions are designed for use by trained professionals.

1.3.2 Notation concept used in the documentation

▲ DANGER Dangerous situation that is certain to cause serious injury or death if it is not avoided

▲ WARNING Dangerous situation that could cause serious injury or death if it is not avoided (e.g. misuse, disregard of instructions, etc.).

▲ CAUTION Dangerous situation that could cause mild to moderate injury if it is not avoided

NOTE Refers to information that does not relate to physical injury, e.g. reference to material damage

▲ Alerts the user to an instruction regarding general safety

■ Alerts the user to an instruction regarding action to be taken

→ Alerts the user to the consequences of an action

1.4 Target group

These operating instructions are designed for use by trained professionals.

The operator of this device must ensure suitable and safe conditions in line with the requirements of these operating instructions.

Professionals – trained professionals who are aware of the dangers of the Wattmix control station and who are familiar with the technology used in the device. Professionals are trained and capable of installing, maintaining and repairing the device.

1.5 Replacing wear parts

Be aware that the Wattmix control station contains parts which, depending on how frequently and how much they are used, will be subject to technology-related wear and tear, even if they are cared for and maintained properly. This particularly relates to mechanical parts and parts that come into contact with hot water and steam, such as hoses, gaskets, valves, etc.

Wear-related defects naturally do not represent faulty workmanship and are therefore not covered by the warranty or any guarantee; regardless of this, faults and malfunctions must only ever be rectified by trained professionals. Contact your dealer for more information.

¹ We reserve the right to make technical changes!

2 Safety

2.1 Important safety information

- ▲ Read these operating instructions carefully before use.
- ▲ Only connect the Wattmix control station to an energy supply that matches the mains voltage specifications described on the Wattmix control station rating plate.
- ▲ The energy supply to the Wattmix control station must be disconnected before any maintenance, cleaning or repair work is carried out.
- ▲ Maintenance, cleaning and repair work must only be carried by trained professionals.
- ▲ In the event of damage to the Wattmix control station or if its function becomes impaired, the Wattmix control station must no longer be used. In this instance, contact your dealer immediately.
- ▲ Note the maintenance instructions and intervals.
- ▲ Protect the Wattmix control station against the effects of weather.
- ▲ Never use the Wattmix control station outdoors.
- ▲ For your own safety and to ensure the Wattmix control station's long service life, only use original spare parts..
- ▲ The device must only be used in accordance with the descriptions set out in the section entitled Correct use.

2.2 Correct use

2.2.1 Area of use

The Wattmix control station has been built in accordance with the state of the technological art and in line with recognised safety technology regulations. No liability is accepted for any damage caused by misuse, incorrect use, incorrect connections or inadequate maintenance / repair not carried out by trained professionals. All warranty services will also be rendered null and void in such situations.

The Wattmix control station is designed for the distribution of hot water in closed heating circuits. It is a ready-to-install, compact heat control station and can optionally be mounted sideways or directly below the wall-mounted boiler.

The Wattmix control station is not intended for use by individuals (including children) who have limited physical, sensory or mental capacities or who lack the technical knowledge and/or experience to do so.

2.2.2 Safety-related environmental conditions

- ▲ The Wattmix control station must not be installed and operated outdoors.
- ▲ The components are not UV resistant.
- ▲ The installation site of the Wattmix control station must be chosen so that maintenance and repair work can be carried out when required.

2.3 Compliance with the operating instructions

NOTE Read the operating instructions carefully before use. In addition to the instructions contained in these operating instructions, regional requirements (e.g. accident prevention guidelines) also apply to the safe operation of this device. The operator of the device must make this information available.

2.4 Residual hazards and safety measures

⚠ GEFAHR Electrical energy!

Danger of death by electric shock!

- Do not touch any voltage-carrying cables or components with wet hands.
- When handling electrical current, always comply with accident prevention guidelines.

⚠ WARNUNG Hot water!

Severe scalding possible.

- Fit suitable scald protection (such as a safety fitting or thermostatic mixer tap) to every drawingoff point.

Further information about scald protection can be found in DIN 1988, Sheet 2, Point 4.2.

⚠ WARNUNG Hot surfaces!

Severe scalding possible.

- Do not touch any pipes or components during operation.
- Allow the Wattmix control station to cool down first before carrying out any maintenance, cleaning or repair work.
- Wear heat-resistant safety gloves when carrying out work on hot components.

⚠ CAUTION Working on the device by inadequately trained specialist personnel!

Potential physical and material damage.

- Maintenance, cleaning and repair work must only be carried by trained professionals.

3 Overview of components

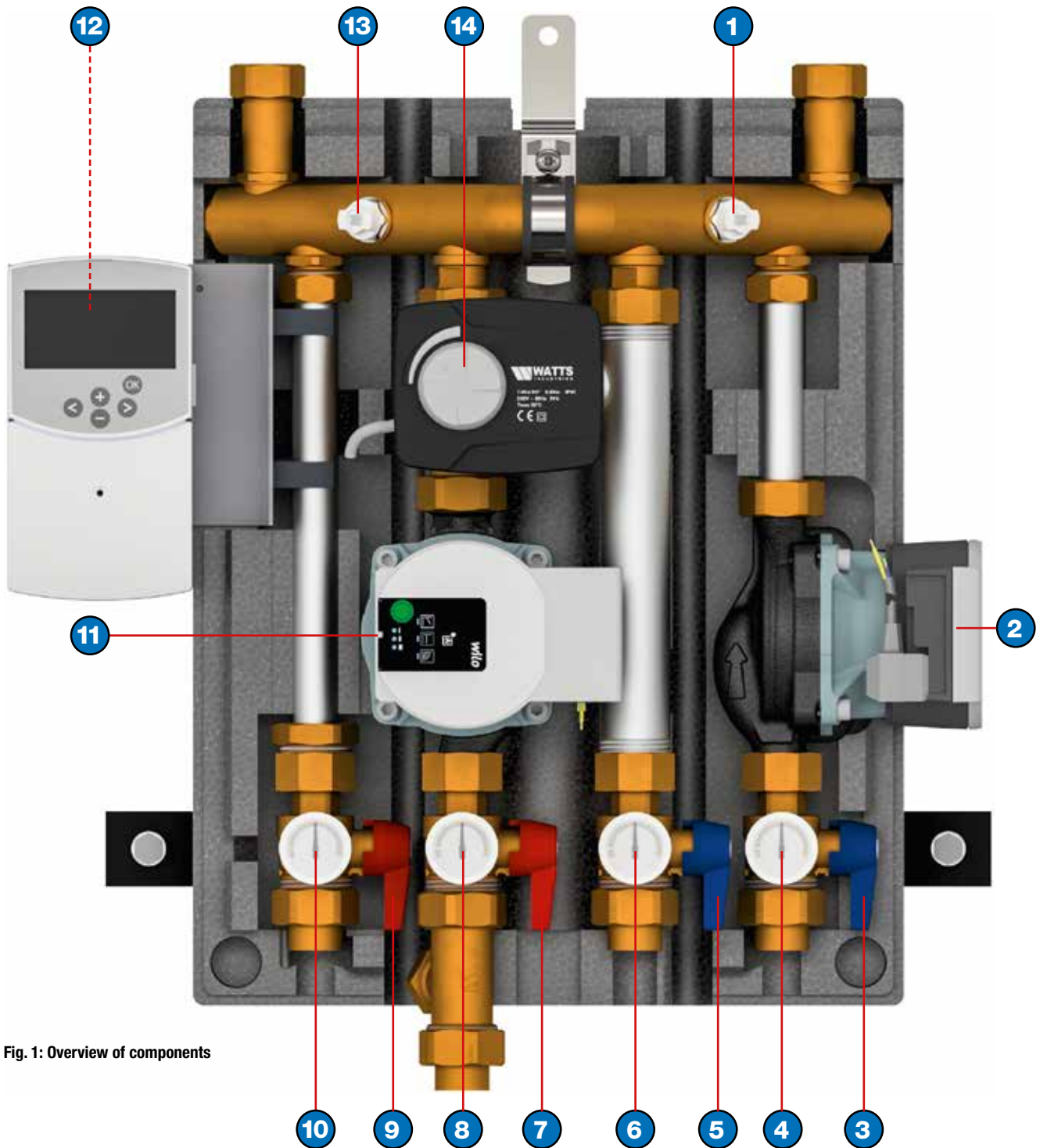


Fig. 1: Overview of components

- | | | | |
|--|--|--|-----------------------------------|
| 1 Bleeder screw | 5 Mixed heating circuit return ball valve | 9 Unmixed heating circuit supply ball valve | 13 Bleeder screw |
| 2 Circulating pump | 6 Thermometer | 10 Thermometer | 14 3-way mixer with bypass |
| 3 Unmixed heating circuit return ball valve | 7 Mixed heating circuit supply ball valve | 11 Circulating pump | |
| 4 Thermometer | 8 Thermometer | 12 Controller* | |

* not included in delivery in some countries (optionally available)

4 Installation and first commissioning

4.1 Safety

CAUTION Material damage!

The Wattmix control station is not spray- or drip-proof.

- Only install the Wattmix control station in a dry location.

NOTE Wattmix control station must only be installed and commissioned by a qualified professional.

- Installation and operation of the heating system must comply with country-specific standards and guidelines!
- Do not make any modifications to components (e.g. pumps, valves, etc.), supply or return lines and / or safety equipment that could impair the operational safety of the Wattmix control station.
- Ensure that the Wattmix control station's energy supply is always freely accessible.

4.2 Installation

- Remove the front cover on the Wattmix control station.
- Draw on the drilling points for installing the Wattmix control station (see Fig. 3 on page 7).
- Drill the holes in accordance with the screw and dowel size.
- Fit the wall bracket.
- Position the Wattmix control station and secure it using the screws supplied.

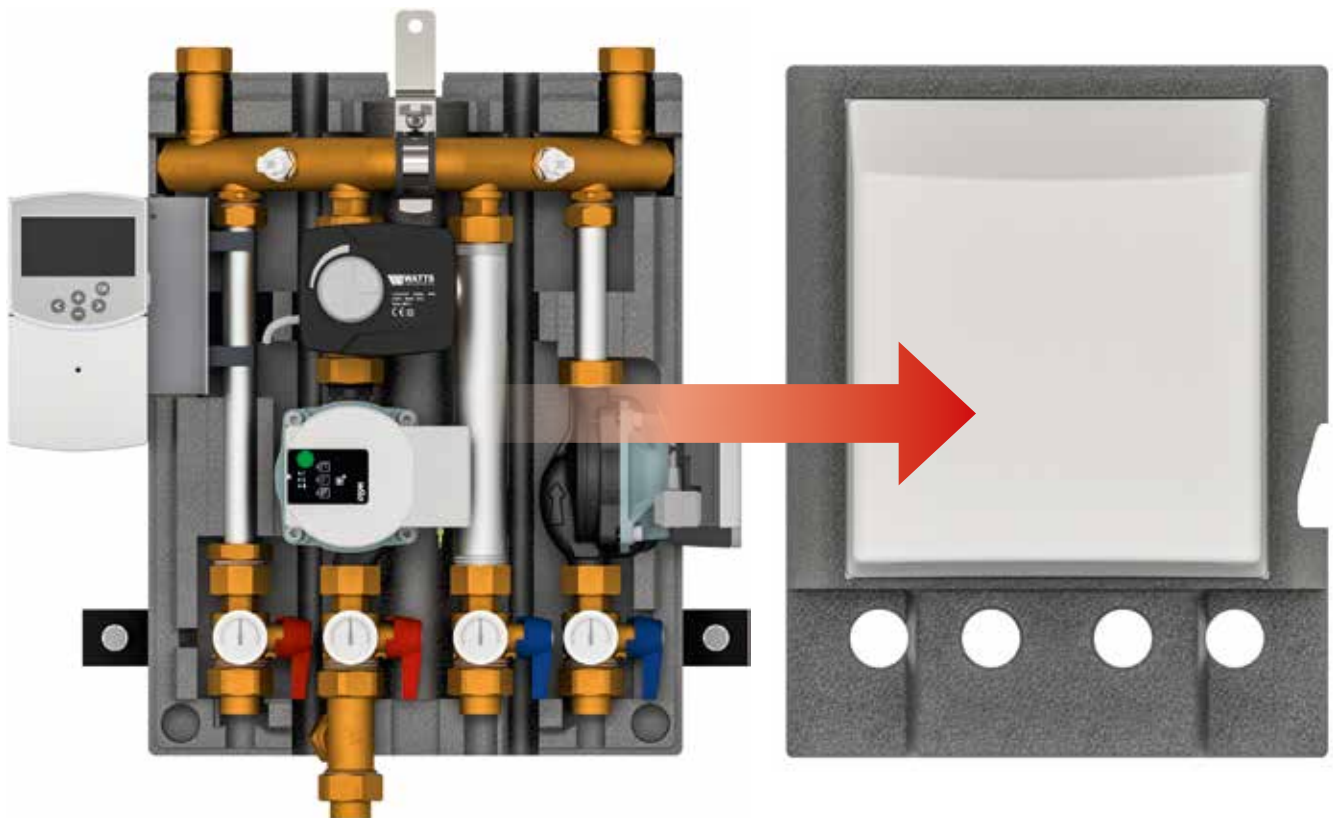


Fig. 2: Removing the front cover

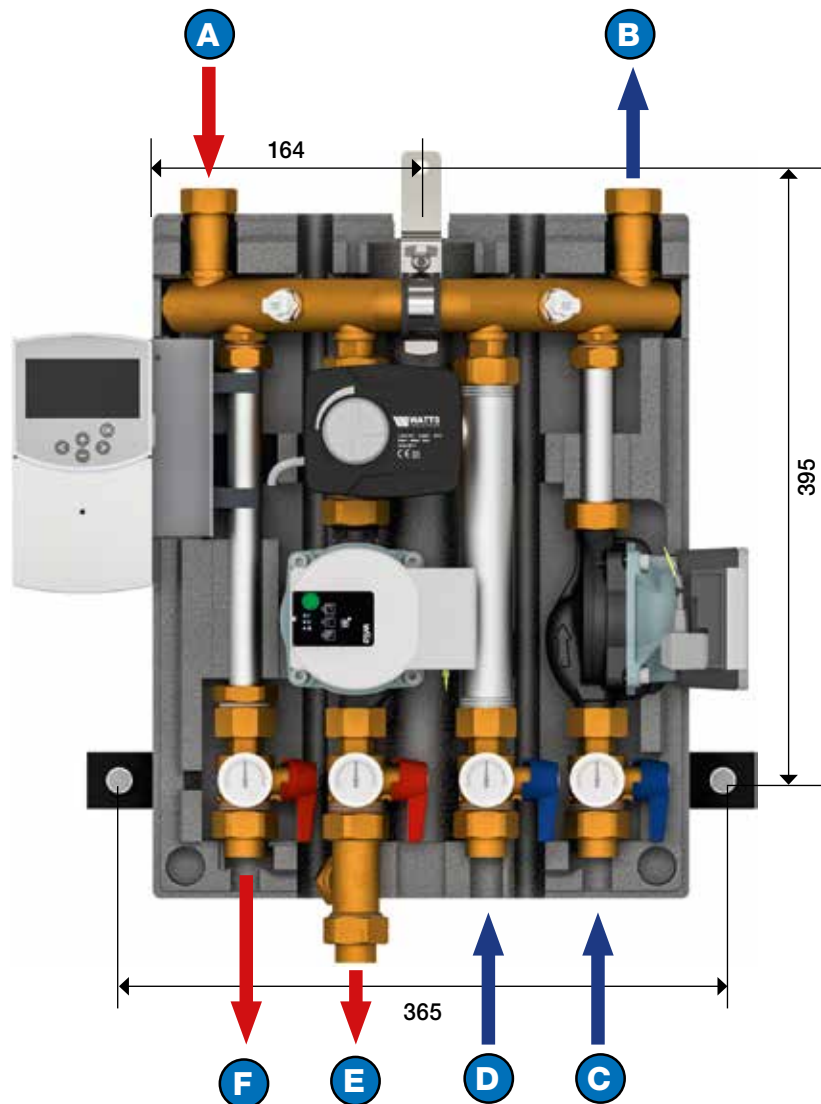


Fig. 3: Drilling pattern

- | | | |
|---------------------------------------|---------------------------------------|---|
| A Hot water supply | B Cold water return | C Unmixed heating circuit return |
| D Mixed heating circuit return | E Mixed heating circuit supply | F Unmixed heating circuit supply |

4.3 First commissioning

- Connect the supply and return lines (items A-F) to the Wattmix control station (see Fig. 3).
- Fill the heating system slowly with water.
- Attach the energy supply.
 - The Wattmix control station switches on automatically once the power supply has been connected.
- Programme the controller as per the controller instructions.

CAUTION Excessive heating system pressure!

Possible material damage caused by excess pressure in the heating system.

- Comply with the specifications of the heating system's manufacturer with regard to the maximum operating pressure.

NOTE All bleed devices must be open while the heating system is being filled.

5 Maintenance

5.1 Safety

⚠ DANGER Electrical energy!

Danger of death by electric shock!

- Do not touch any voltage-carrying cables or components with wet hands.
- When handling electrical current, always comply with accident prevention guidelines.
- Before carrying out any maintenance, cleaning or repair work, disconnect the energy supply to the Wattmix control station and ensure it cannot be switched back on.

⚠ WARNING Hot water!

Severe scalding possible.

- When draining the Wattmix control station, do not touch the hot water.
- Allow the entire heating system to cool down first before carrying out any maintenance, cleaning or repair work.

⚠ WARNING Hot surfaces!

Severe scalding possible.

- Do not touch any pipes or components during operation.
- Allow the Wattmix control station to cool down first before carrying out any maintenance, cleaning or repair work.
- Wear heat-resistant safety gloves when carrying out work on hot components.

5.2 Maintenance intervals

Task	Interval
Check the mobility of the 3-way mixer	2 years
Note any noise development in the pumps and the actuator	2 years
Check for leaks (visual inspection)	2 years

5.3 Maintenance work

5.3.1 Dismantling the 3-way mixer

⚠ DANGER Electrical energy!

Danger of death by electric shock!

- Do not touch any voltage-carrying cables or components with wet hands.
- When handling electrical current, always comply with accident prevention guidelines.
- Before carrying out any maintenance, cleaning or repair work, disconnect the energy supply to the Wattmix control station and ensure it cannot be switched back on.
- Remove the front cover on the Wattmix control station (see Fig. 2 on page 6).
- Remove the manual adjusting knob (A) and loosen the screw (B) of the mixer drive underneath (see Fig. 5 on page 9).
- Dismantle the mixer drive.

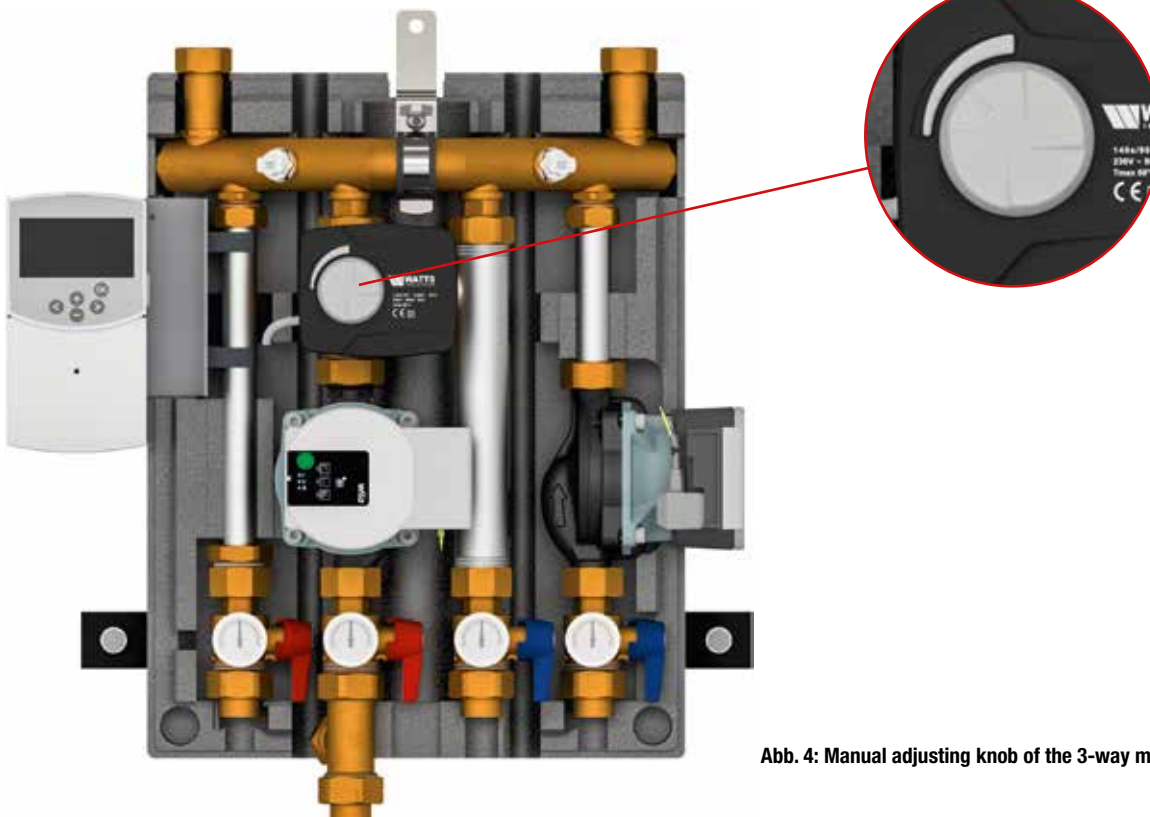


Abb. 4: Manual adjusting knob of the 3-way mixer

- Shut off the ball valves on the supply and return lines (see Fig. 3 on page 7).

→ Optional: shut off the boiler's supply lines.

- Depressurise the Wattmix control station (for example by opening the bleeder screws).

NOTE During the depressurisation of the Wattmix control station, water can leak out.

- Undo the nuts and remove the 3-way mixer. (see Fig. 6).

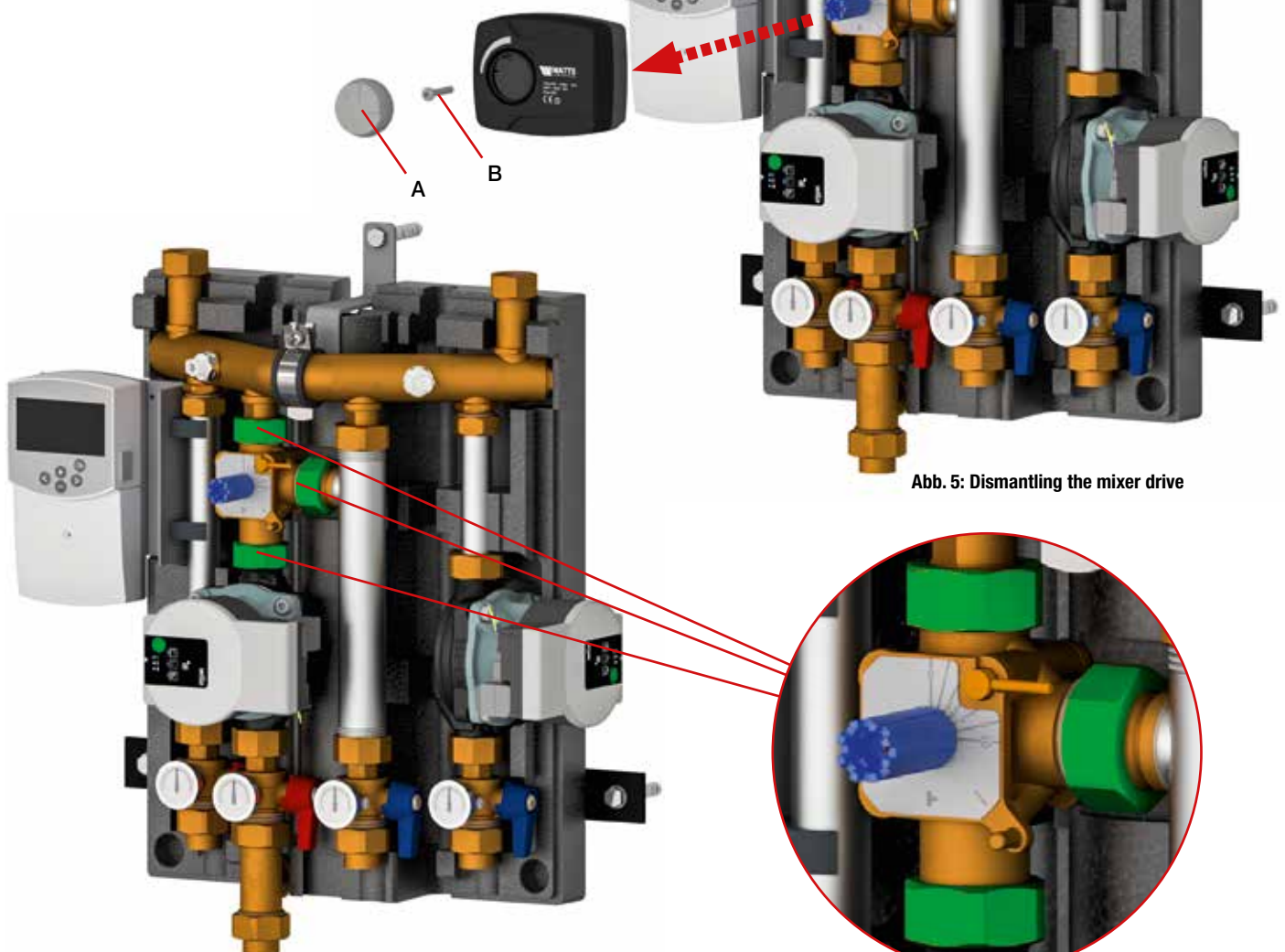


Abb. 5: Dismantling the mixer drive

Abb. 6: Dismantling the 3-way mixer

5.3.2 Fitting the 3-way mixer

- Insert the 3-way mixer and tighten the nuts.
 - Replace damaged or faulty gaskets if necessary.
 - Fit the mixer drive.
 - Slowly open the ball valves on the supply and return lines (see Fig. 3 on page 7).
- Optional: Open the condensing boiler's supply lines.
- Prime the heating system slowly with pressure and vent it, if necessary.
 - Restore the energy supply to the Wattmix control station.

5.3.3 Dismantling the circulating pump

NOTE The dismantling / fitting process described relates equally to the circulating pump in mixed or unmixed heating circuits.

DANGER Electrical energy!
Danger of death by electric shock!

- Do not touch any voltage-carrying cables or components with wet hands.
- When handling electrical current, always comply with accident prevention guidelines.
- Before carrying out any maintenance, cleaning or repair work, disconnect the energy supply to the Wattmix control station and ensure it cannot be switched back on.

- Remove the front cover on the Wattmix control station (see Fig. 2 on page 6).
- Shut off the ball valves on the supply and return lines (see Fig. 3 on page 7)

→Optional: Shut off the boiler's supply lines.

- Depressurise the Wattmix control station (for example by opening the bleeder screws).

NOTE During the depressurisation of the Wattmix control station, water can leak out.

- Loosen the nuts and dismantle the circulating pump (see Fig. 7).

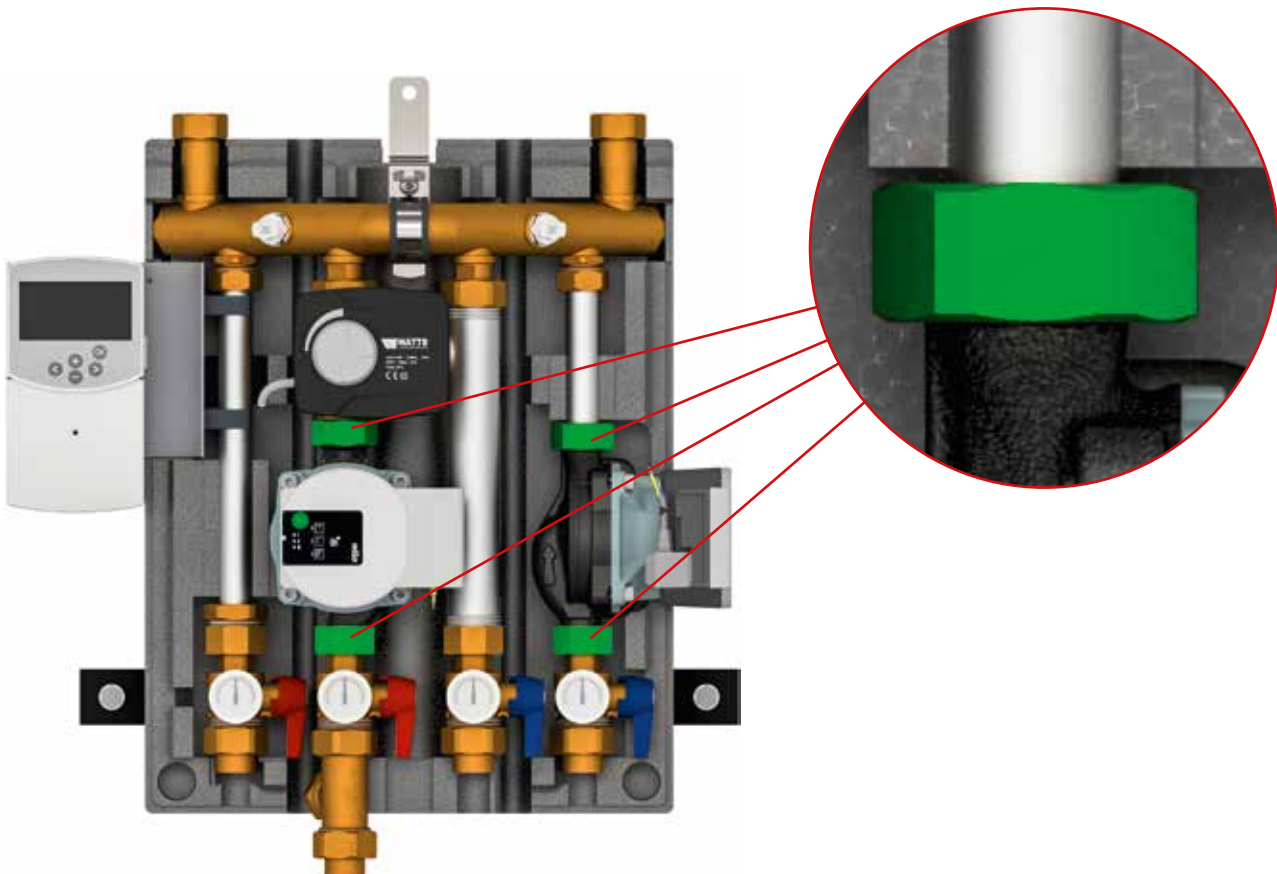


Abb. 7: Dismantling the circulating pump

5.3.4 Fitting the circulating pump

- Insert the circulating pump and tighten the nuts.
- Replace damaged or faulty gaskets if necessary.
- Slowly open the ball valves on the supply and return lines (see Fig. 3 on page 7).

→Optional: Open the condensing boiler's supply lines.

- Prime the heating system slowly with pressure and vent it, if necessary.
- Restore the energy supply to the Wattmix control station.

6 Technical data

6.1 3-way mixer

Mixer drive

The technical data of the mixer drive can be found in the enclosed operating instructions.

Valve

Kvs value	6.3
Maximum pressure	10 bar
Possible setting angle	90°C
Permissible ambient temperature	-20°C - 110°C

6.2 3-way mixer with bypass 30 %

Operating Data

Permissible operating temperature	-20°C - 110°C
Permissible operating overpressure	10 bar
Maximum effective pressure	2 bar
Possible setting angle	90°
Motor torque required	3 Nm

Materials

Mixer valve body	Laiton Ms58
Valve shaft / ball valve	Laiton Ms58
Valve housing cover	Laiton Ms58
Drive socket	Plastic
O-ring gasket	EPDM elastomer

6.3 Circulating pump

Circulating pump

The technical data of the circulation pump can be found in the enclosed operating instructions.

6.4 Characteristic curves

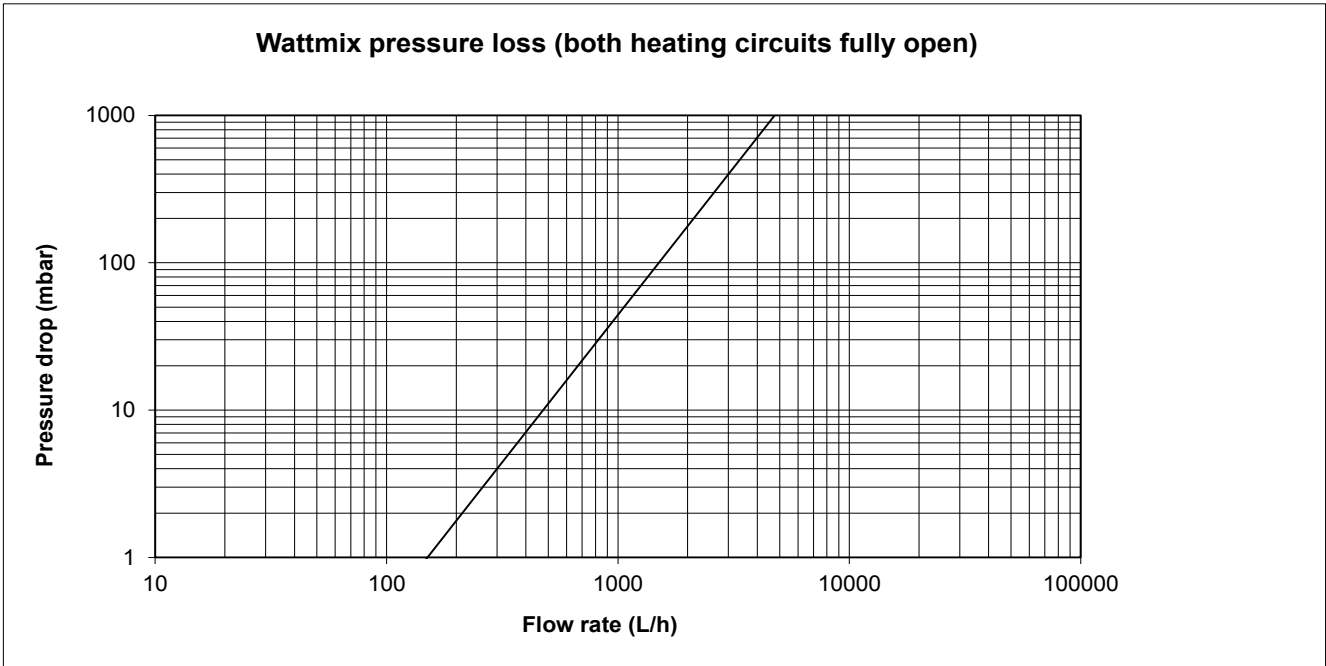


Fig. 8: Pressure loss, both heating circuits open

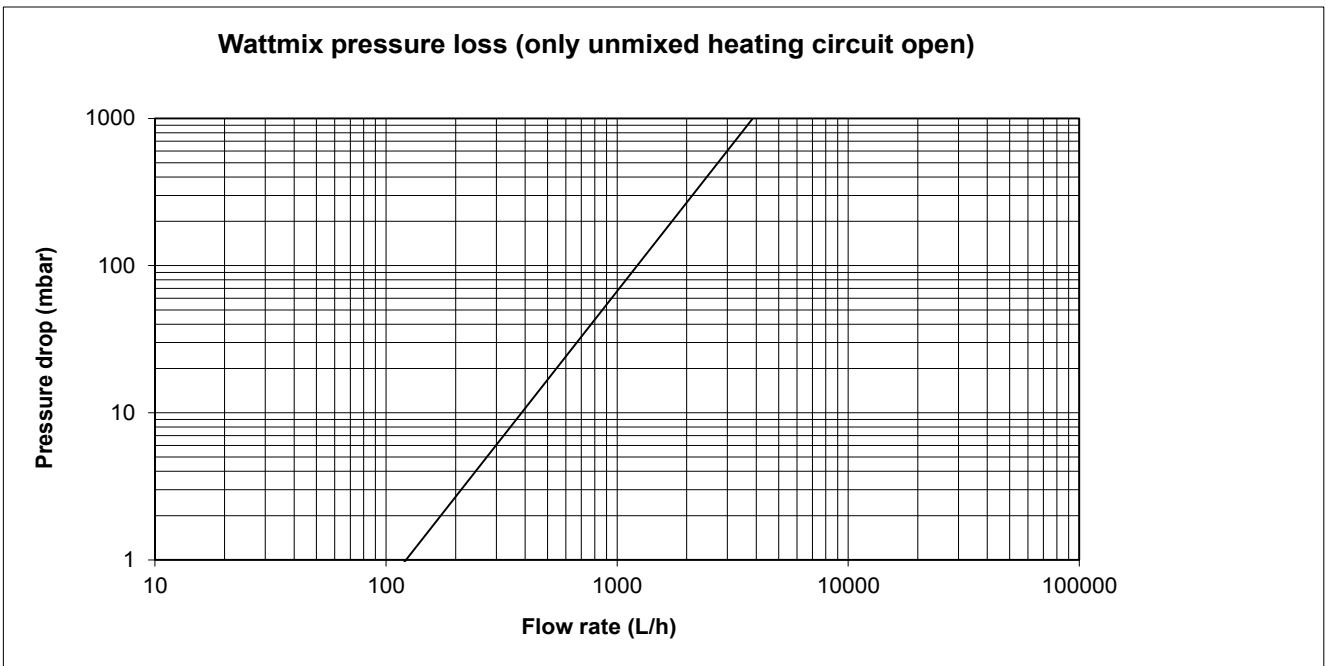


Fig. 9: Pressure loss, only unmixed circuit open

7 Decommissioning, recommissioning

7.1 Decommissioning

⚠ DANGER Electrical energy!

Danger of death by electric shock!

- Do not touch any voltage-carrying cables or components with wet hands.
- When handling electrical current, always comply with accident prevention guidelines.
- Before carrying out any maintenance, cleaning or repair work, disconnect the energy supply to the Wattmix control station and ensure it cannot be switched back on..
- Shut off the condensing boiler's supply lines.
- Remove the front cover on the Wattmix control station (see Fig. 2 on page 6).
- Connect the supply and return lines (items A-F) to the Wattmix control station (see Fig. 3 on page 7).
- For longer periods of decommissioning: Depressurise the Wattmix control station (for example by opening the bleeder screws).

NOTE During the depressurisation of the Wattmix control station, water can leak out.

7.2 Recommissioning

- Open the supply and return lines (items A-F) on the Wattmix control station (see Fig. 3 on page 7).
- Open the condensing boiler's supply lines.
- Prime the Wattmix control station slowly with pressure and vent it, if necessary.
- Restore the energy supply to the Wattmix control station.

8 Dismantling

8.1 Dismantling

Dismantling can be performed for two reasons:

- In order to reassemble the device elsewhere.
- In order to dispose of the device (see page 14).

NOTE If the Wattmix control station is to be reassembled elsewhere, the dismantling process must be prepared properly. All installation and fastening parts must be carefully dismantled, labelled and, if necessary, packaged for transportation. This will ensure that, upon reassembly, all the parts can be correctly assigned and fitted back in the appropriate place.

9 Disposal

⚠ WARNING Potential for contamination of the environment and groundwater from improper disposal!

The legal regulations and guidelines in the country of operation must be observed when disposing of components and operating materials.

1. Ensure that all assemblies and components are de-energized.
2. Disassemble the pump group properly or commission a specialist company to do so.
3. Sort the assemblies and component parts into recyclable materials, hazardous substances and operating materials.
4. Dispose of the assemblies and components in accordance with local laws and regulations or take them to be recycled.

9.1 Return to the manufacturer

Get in contact with the manufacturer if you would like to return the pump group or parts of it.

9.2 Notification of administrative bodies and the manufacturer

Inform the manufacturer of decommissioning and disposal of the pump group for statistical purposes.

10 Warranty

WATTS products are tested extensively. WATTS therefore guarantees only to replace or repair components of the products supplied free of charge – at the sole discretion of WATTS – if, in the opinion of WATTS, they exhibit verifiable manufacturing faults. Warranty claims due to defects or defects of title may be asserted within one (1) year of delivery/transfer of risk. Excluded from the warranty is damage attributable to normal product use or friction and to damage resulting from modifications or unauthorized repairs to the products, for which WATTS rejects all claims for compensation (direct or indirect). (For more detailed information, please refer to our web-site.) In all cases, supply is subject to the General Terms and Conditions, which can be found on www.wattswater.eu/gtc/.

The descriptions and images contained in this product data sheet are for informational purposes only and are without guarantee. Watts Industries reserves the right to make technical and design changes to its products without prior notice.

Warranty: All purchases and sales contracts expressly require the purchaser to accept the general terms and conditions of sale and delivery, which can be found on the website www.wattswater.de/agb. Watts hereby contradicts any deviating or additional conditions to the general terms and conditions of sale and delivery which were communicated to the buyer in any form without the written consent of a Watts representative.



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