

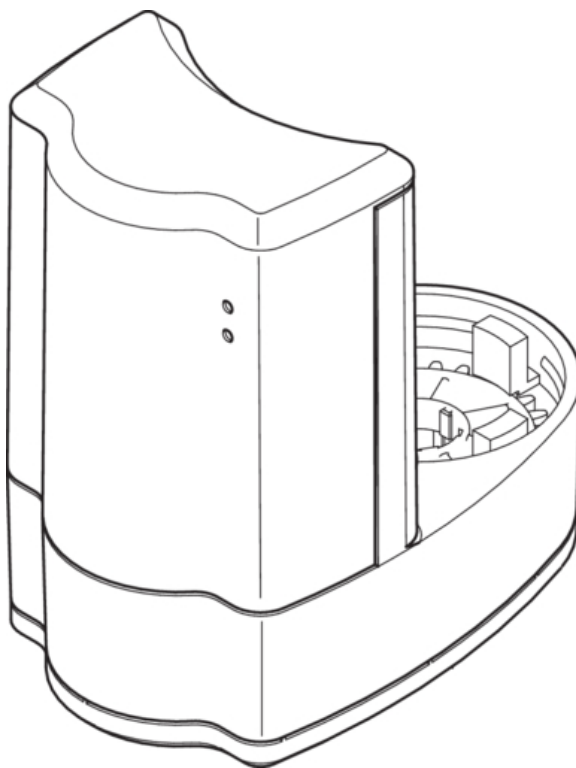
# Installation and operating instructions

## **JUDO Automatic upgrade unit**

JAUS  $\frac{3}{4}$ " - 2" for manual backwashing filters JUKO and SPEEDY  $\frac{3}{4}$ " - 2"

Valid for: EU-countries and Switzerland

Language: English



**Read before use and store!**



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**Queries, orders, customer service**

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**Dear customers,**

**Thank you for the confidence you have shown in us by purchasing this product. You have purchased a state-of-the-art device. It has been carefully checked prior to delivery. Nevertheless, if difficulties occur, please contact the closest customer service (see chapter 9).**

These installation and operating instructions are intended for both installers, who are in charge of installing, maintaining or repairing the device, and for the operators of the device.

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## 1 Safety

These operating instructions must always be available at the place of use of the device.

### 1.1 Intended use

The accessory JAUS (JUDO Automatic upgrade unit) is intended for the conversion of the following types of manual backwash filters

- JUDO JUKO
- JUDO SPEEDY

with pipe connection widths of ¾" - 2" in automatically backwashing filters.

These installation instructions describe the conversion process of a manual backwash filter of the types mentioned into a filter with automatic backwashing at intervals to be adjusted.

### 1.2 Electrical danger



**Risk of electric shock**

**A splash-proof Schuko socket above the filter, at a maximum distance of 1.5 m and with continuous power supply is required for connection to the mains, in accordance with the legal regulations for wet rooms.**

**No electrical wiring or equipment that is not splash-proof may run or be stored below the device. Electrical devices/ equipment located in the vicinity of the device must be splash-proof or comply with the legal regulations for wet rooms.**

**Only the supplied power supply unit may be used to connect the device to the power supply. This reduces the mains voltage for operating the electronics to a harmless low voltage of 9 V.**

**Only low voltages can be used for the remote transmission of the fault indication via the potential-free output.**

**Switching voltage: maximum 24 V  
Amperage: maximum 0.1 A**

**Before setting the backwashing interval, disconnect the power supply unit from the socket.**

### 1.3 Warning of property damage

These installation and operating instructions as well as the installation and operating instructions of the corresponding backwash filter must always be available at the place of use.

The device may only be installed by qualified technical personnel.

After installing the automatic upgrade unit, make sure that the wastewater connection of the backwash filter is functional before plugging the power supply unit into the socket.




Provide appropriate drainage facilities for the backwash water (see installation and operating instructions of the backwash filter or the domestic water station).

**CAUTION:** Collecting the backwash water with a bucket is no longer possible in automatic mode.

Only 9V block batteries of the alkaline 6LR61 type may be used.

### 1.4 Symbols used

The safety instructions contained in these operating instructions are labelled with the following symbols:

	Indication of existing dangers
	Warning of electric voltage
	User tips and other information

### 1.5 Units used

Unit	Conversion
3/4"	DN 20
1"	DN 25
1 1/4"	DN 32
1 1/2"	DN 40
2"	DN 50

## 2 Scope of supply

- JUDO Automatic upgrade unit
- Hose connection piece
- Union nut
- Allen wrench M3
- Installation and operating instructions

Check the contents for completeness or transport damage immediately after unpacking. Later complaints can no longer be recognized.

## 3 Installation



### CAUTION

The device may only be installed by qualified technical personnel.

### 3.1 Requirements for the place of installation



### CAUTION

A splash-proof Schuko socket above the filter, at a maximum distance of 1.5 m and with continuous power supply is required for connection to the mains, in accordance with the legal regulations for wet rooms.

An adequately sized wastewater connection (e.g. floor drain) in

compliance with DIN 1986 must be provided.

### 3.2 Assembly of the automatic upgrade unit



#### CAUTION

Observe the instructions in the installation and operating instructions of the backwash filter or the domestic water station.

Provide appropriate drainage facilities for the backwash water (see installation and operating instructions of the backwash filter or the domestic water station).

**CAUTION:** Collecting the backwash water with a bucket is no longer possible in automatic mode.

#### The assembly consists of two steps:

- Step 1: Disassemble the handwheel of the backwash filter or the domestic water station.
- Step 2: Assemble the automatic upgrade unit.



#### CAUTION

Before disassembling the handwheel, make sure that the backwash valve is completely closed!

#### Disassembling the handwheel:

1. Pull the handwheel (6) in the zero position down jerkily (i.e. backwash valve completely closed).

2. Loosen the union nut (5).
3. Remove union nut (5), hose connection piece (4), retainer (3) and spacer (2).



The removed parts are no longer needed.

#### Assembling the automatic upgrade unit:

1. Snap the automatic upgrade unit (8) into the filter bowl cover (1) from below; pay attention to the coding.  
**Caution:** The cover must face forwards.
2. Remove the cover (7) of the automatic upgrade unit.
3. Tighten the socket head screw M6 with the supplied Allen key (9).
4. Refit the cover.
5. Insert the new, enclosed hose connector (4) into the filter's backwash valve.
6. Tighten the new union nut (5) by hand so that the hose connector (4) can still be turned.
7. Insert a hose (outer diameter max. 16 mm, inner diameter 12 mm) from below through the handwheel (6) and then push it onto the hose connector (4).
8. Secure the hose with a hose clamp.
9. Put the handwheel (6) back on.



#### CAUTION

Make sure that the waste water hose is connected.

10. Plug the mains unit into the socket.

→ This automatically starts a backwash of the device. The device is vented by the backwash.

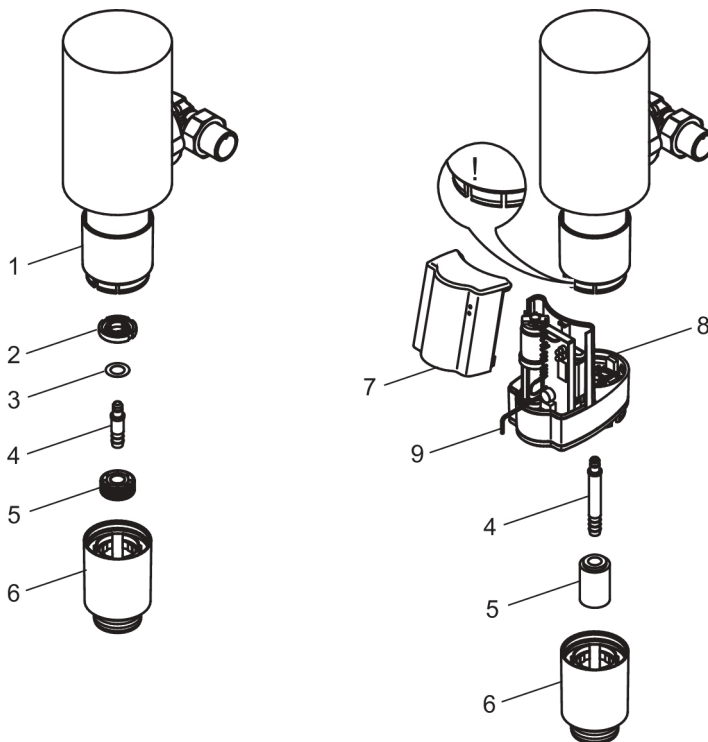


Fig. 1: Assembly of the automatic upgrade unit

- 1 Filter bowl cover
- 2 Spacer
- 3 Retainer
- 4 Hose connection piece
- 5 Union nut
- 6 Handwheel
- 7 Cover of automatics unit
- 8 Automatic upgrade unit
- 9 Allen key M3

## 4 Operation

### 4.1 How backwashing works

**Backwashing is triggered in the following manner:**

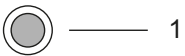
- automatically, when the power supply unit is plugged in.
- automatically, after expiry of the set backwash interval.
- manually, by briefly interrupting the mains supply (pull out the power supply unit from the socket and plug it back in).

The backwash process takes about 40 seconds. Then the backwash valve closes again and the backwash process is completed.

**i** If the power fails during a backwash, it is completed with the help of the inserted battery.

For further information on backwashing, refer to the installation and operating instructions of the backwash filter.

### 4.2 Indicator lights



1



2

Fig. 2: Indicator lights

- 1 Operation (green indicator light)**  
The device is now ready for operation.
- 2 Fault (red indicator light)**  
A fault exists (see chapter *Fault* in the Installation and operating instructions of the device).

### 4.3 Setting the backwashing interval

A cleaning interval of 1 month is set exworks.

Selectable time intervals:	
2	months
1	month
1	week
1	day



#### Risk of electric shock!

Disconnect the power supply unit from the socket.

1. Pull the power supply unit out of the socket.
2. Remove the cover of the automatics unit by pressing and pulling on the side.
3. Select the desired time interval for the time-controlled automatic backwashing process on the control electronics of the automatic system. To do this, attach the cable lug of the short cable strand to the pin with the inscription corresponding to the desired time interval (see Figure 3).

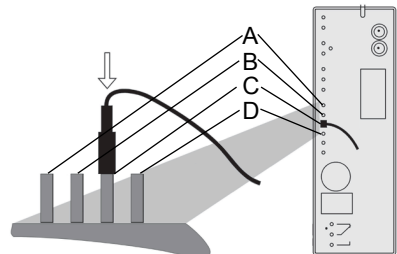


Fig. 3: Time control

- |   |          |
|---|----------|
| A | 2 months |
| B | 1 month  |
| C | 1 week   |
| D | 1 day    |
4. Refit the cover of the automatic unit until it audibly engages.



### CAUTION Escaping water!

Before connecting to the power supply system, make sure that the waste water connection is functional.

## 4.4 Battery replacement



### CAUTION

Only use a 9 V block battery of alkaline type 6LR61 (see battery marking).

### The manufacturer recommends the use of the following batteries:

- Energizer Industrial
- Energizer High Tech
- Energizer Ultra +
- Active Energy
- Conrad Energy



ONE battery is required to operate the emergency power supply.

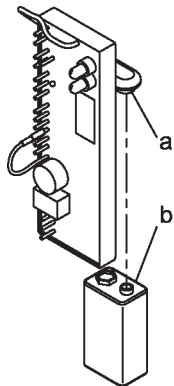


Fig. 4: Battery replacement

- a Connection clip
- b Battery

5. Plug the power supply unit back into the socket. **Backwashing starts immediately!**

1. Pull the power supply unit out of the socket.
2. Remove the automatic controls cover by pressing to the side and pulling.
3. Release the battery from the connection clip of the connection cable behind the electrical circuit.
4. Insert new battery into the connection clip (see Figure 4).
5. Clip the cover of the automatic controls back on so that it audibly engages.
6. Plug the power supply unit back into the socket.

The electrical circuit immediately performs a battery test.

**Dispose of used batteries according to valid regulations!**

## 5 Remote transmission of messages



The device may only be installed by qualified technical personnel.

Only low voltages can be used for the remote transmission of the fault indication via the potential-free output.

**Switching voltage: maximum 24 V**  
**Amperage: maximum 0.1 A**



## Potential-free fault message

The device can transfer fault indication messages potential-free to a peripheral.

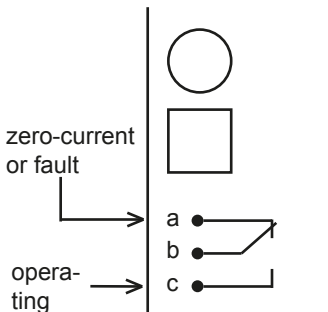


Fig. 5: Relay contact assignments

Connect relay as:	Contacts
NOC	<b>a and b</b>
NCC	<b>b and c</b>

In Figure 5 the contacts of the potential-free relay are marked in the currentless state.

The relay can be connected as normally closed contact or as normally open contact :

When the power supply unit is plugged in, the relay changes its switching state into "operating".

If there is a fault indication, the relay switches to "zero-current or fault" state.

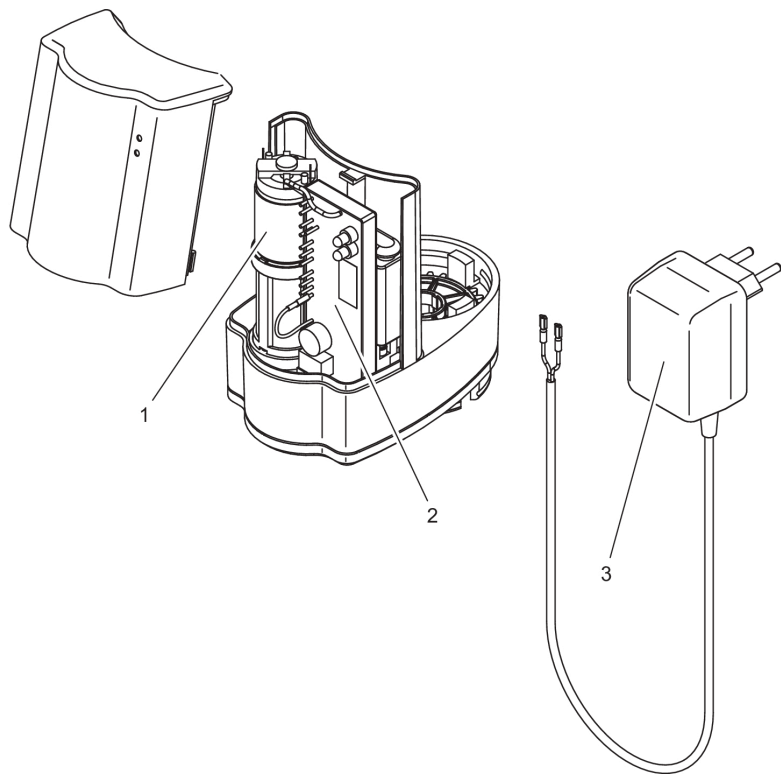
## 6 Fault

Fault	Possible cause	Remedy
Red warning light illuminates.	Fault in the automatic controls.	Perform backwashing: 1. Pull the mains plug out of the socket. 2. Wait until all warning lights are off. 3. Plug in the mains plug again.
Red warning light illuminates and signal tone sounds. Backwash water may still be running.	The backwashing valve is not fully closed. Possibly dirt in backwashing valve.	If the fault occurs again: Inform the installer or the closest customer service point.
Simultaneous flashing of the red and green warning lights (no backwashing will be triggered).	Battery is empty or incorrect battery type.	1. <b>Pull the mains plug out of the socket.</b> 2. Insert new 9V Alkaline battery 3. Plug in the mains plug again.

Table 1: Troubleshooting

7 Spare parts

JUDO Automatic upgrade unit, Order No. 2170671



Item	Designation	Pcs	Order No.	AU <sup>1)</sup> / Pcs
1	Motor	1	2170643	260
2	Electronic control	1	2170641	254
3	Power supply unit	1	2170633	82

Table 2: List of spare parts

1) AU = Accounting unit

## 8 EC Conformity Declaration

	<b>EC Conformity Declaration</b>	Document no. 404/04.21
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Manufacturer: JUDO Wasseraufbereitung GmbH

Address: Hohreuschstraße 39 - 41  
D-71364 Winnenden

**Product description:** JUDO JAUS  
Automatic upgrade unit

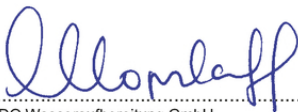
- EC Directive: Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) 2011/65/EU
- EC Directive: Elektromagnetic Compatibility (EMC) 2014/30/EU
- Harmonized Standards: Electromagnetic compatibility, generic standards for radiated interference and interference immunity EN 61000-6-2  
EN 61000-6-3
- Harmonized Standards: Safety of power transformers, power supplies, reactors and similar products EN 61558-1

The observance of all points of the EMC requirements (EC conformity) for the use of the device in household / commercial areas and industrial areas is hereby confirmed.

Issuer: JUDO Wasseraufbereitung GmbH

Place and date: Winnenden, April 28, 2021

Legally binding signature:



JUDO Wasseraufbereitung GmbH

The sole responsibility for issuing this Declaration of Conformity lies with the manufacturer. This declaration certifies that the product is in accordance with all the stated directives; it is however not an assurance of its characteristics.

## 9 Customer service

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