

Installation and Operating Instructions

JUDO JU-WEL Compact

Jewel Water Device $\frac{3}{4}$ " – $1\frac{1}{4}$ " with 3 types of Jewels

Valid for: EU countries and Switzerland

Language: English

Jewel Water:

Amethyst crystals strengthen the general condition and relieve pain caused by nervousness, tension, stress, restlessness and insomnia.

Rock Crystal Jewels energize, add more vitality, strengthens one general condition.

Rose Quartz Jewels add more sensitivity, has a stimulating and positive effect on body, harmonize.

Attention:

Carefully read through the installation and operating instructions and safety information before installing and putting the unit into service.

These must always be issued to the owner/user.

Extended warranty period if a service agreement is concluded!

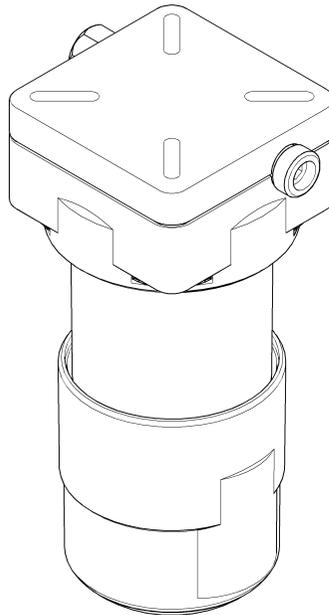


Fig: JUW-CO $\frac{3}{4}$ " – $1\frac{1}{4}$ "



Quiries, orders, customer support

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Dear Customer

We would like to thank you for your confidence in us, which you have shown by purchasing this device. The product you have purchased is a Jewel Water Device developed using state of the art technology.

This Jewel Water Device is designed for use with cold drinking water with a maximum water and environmental temperature of 30°C (86°F). The water from the mains flows through the Jewel Water Device and the positive qualities of the crystals are transferred to the drinking water.

All the manufactured Jewel Water Devices have been subjected to precise quality control measures prior to delivery. In the event of any difficulties, please do not hesitate to consult the responsible customer support department (see overleaf).

Trademarks:

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EC Conformity Declaration

Document-no. 122/02.05

Fabrikant: JUDO Wasseraufbereitung GmbH

Adres: Hohreuschstr. 39 - 41
D-71364 Winnenden

Product Description: JU-WEL Compact

- EC-Directive: Electromagnetic Compatibility (EMC) 89/336/EC
- Engineering Standards: Electromagnetic Compatibility, Generic Standards for Radiated Interference and Interference Immunity. EN 61000-6-2 EN 61000-6-3

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, le 7. March 2005

Legally binding
signature:


.....
JUDO Wasseraufbereitung GmbH

This declaration certifies that the product is in accordance with all the stated directives, it isn't, however, an assurance of its characteristics.

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1. About this Operating Instructions



(see chapter on “Safety information and dangers due to non-compliance”)

The operating instructions should always be stored at the operating location of the Jewel Water Device.

These operating instructions are designed to make it easier to become acquainted with the Jewel Water Device and the use of the device in accordance with the manufacturer’s specifications.

The operating instructions contain important information on how to operate the Jewel Water Device in a safe and proper way. The operating instructions contain basic instructions which are to be observed during the installation, operation and maintenance of the device. The observance of the instructions helps to prevent dangers, to reduce repair costs, as well as to increase the reliability and lifespan of the Jewel Water Device.

The operating instructions should be read and observed by all persons that have to do with the Jewel Water Device, for example:

- **installation**
- **operation**
- **maintenance** (servicing, inspection, putting into operation)

Any installation and maintenance work on the device may only be performed by personnel authorized to do so by the manufacturer, and capable of observing the country-specific instructions and requirements stated in the assembly and operating instructions.

In addition to the operating instructions and the obliging regulations concerning accident prevention that exist in the country of operation and the location of use, the established technical regulations concerning safe and professional work, should also be observed.

It is therefore essential that these operating instructions be read by the installer, as well as the responsible technical staff / operator, prior to any installation, commissioning or maintenance work being performed.

In addition to the general safety instructions stated in the chapter on “Intended Use”, the specific safety instructions stated in the other chapters should also be observed

1.1 Symbols used

The safety instructions in these operating instructions are emphasized using the following symbols:



ATTENTION



Note Danger



Warning Electric Tension Voltage

Information which is displayed on the Jewel Water Device itself, e.g.:

- Type Designation Plate
- Cleaning Instructions

should be clearly visible and legible and observed.

1.2 Safety information and dangers due to non-compliance

The non-observance of the general danger symbols may, for example, result in the following dangers:

- Danger to persons caused by electrical or mechanical effects.
- Danger to persons or the environment caused by leaks.

Any working methods that might endanger safety are to be avoided.

The non-observance of these operating instructions and the safety instructions contained herein may result in dangers for persons, as well as for the environment and the Jewel Water Device itself.

1.3 Units Used

The following units which are not part of the international system (SI = System International) are used:

Unit	Conversion
°F	$^{\circ}\text{F} = 9/5^{\circ}\text{C} + 32$
bar	$1 \text{ bar} = 10^5 \text{ Pa} = 0,1 \text{ N/mm}^2$
3/4"	DN 20

2. Intended Use

The installation and operation of the Jewel Water Device is subject to the following existing national regulations.

In addition to the operating instructions and the obliging regulations concerning accident prevention that exist in the country of operation and the location of use, the established technical regulations concerning safe and professional work, should also be observed.

The water which is to be treated should fulfil the requirements stipulated by European drinking water directives!

It is absolutely essential that the manufacturer / supplier will be consulted prior to any operation of the device using water of a different quality, respectively with water that contains additives.

This Jewel Water Device is designed for use with cold drinking water with a maximum water and environmental temperature of 30°C (86°F).

The Jewel Water Device has been developed and manufactured using state of the art technology and the established safety regulations in Germany.

The Jewel Water Device may only be operated in accordance with the manufacturer's specifications. Any other operation, or operation beyond the specified use, is not in accordance with the manufacturer's specifications.

Additional dangers may result in the event of the device not being operated in accordance with the manufacturer's specifications and non-observance of the danger symbols or safety instructions. The manufacturer / supplier cannot be made liable for any damages caused by these additional dangers. The operator is responsible for these risks.

The use of the device in accordance with the customer's specifications includes the observance of the operating instructions.

The manufacturer / supplier should be consulted prior to any operation of the Jewel Water Device, other than in the operational areas stated in these operating instructions.

The Jewel Water Devices may only be operated in a technically faultless condition, in accordance with the manufacturer's specifications and the stated safety and danger relevant instructions and under observance of the operating instructions!

Any functional defects are to be removed immediately!

2.1 Water pressure

The water pressure should be between 1.5 bar and 10 bar.



(see chapter on "Safety information and dangers due to non-compliance")

2.2 Notes on special dangers

2.2.1 Electrical equipment / installations



Electrical wiring and devices may not be situated under or in the direct vicinity of the Jewel Water Device!

Electrical devices / equipment that are not splash-water proof and are situated in the direct vicinity of the Jewel Water Device may be damaged by water leaking from the Jewel Water Device caused as a result of the device not being operated in accordance with the manufacturer's specifications.

In addition, this may also result short circuits if these electrical devices / equipment being connected to the electrical power supply. In the event of such cases, persons are at risk and may sustain electrical shocks. Therefore, any electrical devices / equipment situated in the direct vicinity should be splash-water proof, respectively comply with the statutory requirements for wet areas (IP44).

3. Product Information

3.1 Intended purpose

The Jewel Water Device is designed for use with cold drinking water with a maximum water temperature of 30°C (86°F).



(see chapter on "Safety information and dangers due to non-compliance")

For restrictions regarding operation please refer to the chapter on "Intended Use".

3.2 Materials used

The used materials are resistant to the physical, chemical, and corrosive factors in drinking water and have been tested in accordance with DIN 19632 (static and dynamic pressure resistance). All materials are safe in accordance with hygienic and physiological standards. All synthetic materials (KTW recommendations) and metals are in accordance with the requirements set by the BgVV (Federal Institute for Consumer Health Protection and Veterinary Medicine).

4. Installation

4.1 Basic Information



ATTENTION



(see chapter on “Safety information and dangers due to non-compliance”)

The Installation of the device may only be performed by suitably qualified specialist personnel.

It is absolutely essential that the chapter on “Intended Use” will be observed!

The angle valve mounted on the Jewel Water Device has to reliably support the weight of the Jewel Water Device. This is the reason why we recommend you mount a wall mounting. If this is not done, the pipeline may suffer mechanical damage or even break. This could cause significant water damage and anyone in the area of the Jewel Water Device would be exposed to health risk from great quantities of water. This is also the reason why the pipelines should be fastened or supported.

Always maintain the given distances for convenient operation and service (see chapter on “Installed dimensions”).

Where it should be mounted:

The Jewel Water Device is designed for installing directly under the sink (see chapter on “Modifications / changes / spare parts”).

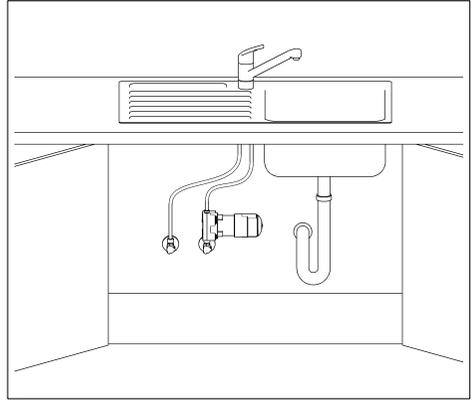


Fig. 1: Where it should be mounted:



ATTENTION



(see chapter on “Safety information and dangers due to non-compliance”)

Please shut off the water before commencing installation and only open it again after completing all installation work. Otherwise, there may be water damage.

Let off the standing water if the Jewel Water Device is not used for a longer period of time. Please open the water tap and let it flow for about 5 minutes.

If all components are not mounted at installation, it could impair the function.

Always ensure utmost cleanliness at installation.

Soiling on hands at installation and part replacement can introduce bacterial and mechanical impurities to the drinking water system.

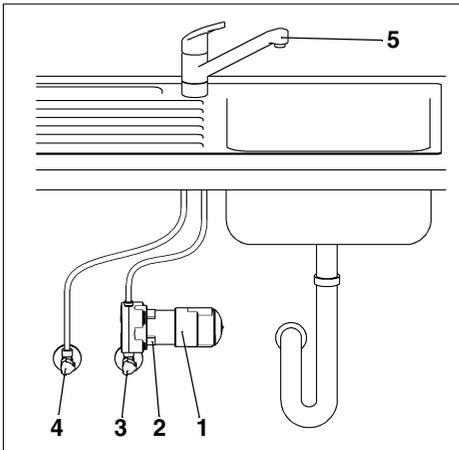


Fig. 2: Installation

- 1 JUW-CO
- 2 Wall mounting
- 3 Angle valve for the cold water
- 4 Angle valve for the warm water
- 5 Water faucet

4.1.1 Requirements for the place of installation

The location where the device is installed should be dry and frost-proof! Unauthorized persons should not be able to access the Jewel Water Device!



(see chapter on “Safety information and dangers due to non-compliance”)

- The environmental temperature may not exceed 30°C (86°F)! In the event of excessive temperature or solar radiation, damage to materials may result, including the breaking of the bell.
- An outlet control valve (Eckventil) should be fitted in front of the Jewel Water Device! This enables the water supply to be shut off during installation, maintenance and repair work and in the event of a defect in the Jewel Water Device. In addition this preventive measure prevents flooding and damages to furniture or oth-

er household equipment.

4.1.2 Installed position

The Jewel Water Device can be installed in the vertical or horizontal position.

4.1.3 Installing the Jewel Water Devices

The Jewel Water Device has a union nut on the water inlet side. There is a transition piece on outside threads of $\frac{3}{8}$ " on the water inlet side. You can flange the Jewel Water Device here by loosening and taking off the union nut of the water supply on the cold water angle valve. Then tighten the union nut of the Jewel Water Device after inserting the flat seal. Install a crimp screwed connection with a copper pipe or a reinforced hose of the water tap on the water outlet side. Since water can flow symmetrically around the Jewel Water Device from both sides, you can replace the union nut with the connecting piece with the transition piece. These connecting pieces are sealed with O rings and mounted with an M 8 Allen key. This allows space-saving assembly under varying local conditions (see Fig. 2).

4.1.4 Mounting the wall mounting

If the Jewel Water Device is not flanged on the cold water angle valve, you can mount it on the wall.

- Therefore, mount the wall mounting supplied on the wall.
- Fit the Jewel Water Device in the wall mounting on the transparent precious stone casing.
- Connect up the copper pipes to the water supply points with the crimp screwed connections or reinforced hoses.
- Connect up copper pipes with the water tap or the cold water angle valve with the crimp screwed connections or reinforced hoses.

5. Operation



(see chapter on “Safety information and dangers due to non-compliance”)

It is essential that the chapter on “Intended Use” are observed!

5.1 Commissioning

Prior to putting the Jewel Water Device into operation (initial commissioning or putting into operation after maintenance work), the device should be **filled** with water and then **aired!**

- Opening the water tap after installation fills the Jewel Water Device with water.
- Open the water tap to maximum, which automatically airs the Jewel Water Device.

Revitalization Electronics

The cover in the electronics compartment (3) contains an important revitalization unit. It revitalizes the **crystals** using a red-green-blue alternating light.

Activation

- Lift the cover of the electronics compartment (2) on the bottom side of the Jewel Water Device.
- Place the two supplied batteries in the battery compartment of the electronics compartment. Use 1.5 V microbatteries.
- Insert the harmonising light source into the light pipe (4).
- Replace the cover of the electronics compartment (2).

By pressing the switch (1) the revitalization is manually activated. The **crystals** are automatically revitalized once a week.

5.2 Functional description

Das zu behandelte Trinkwasser strömt in das Jewel Water Device. Im Gerät fließt das Wasser durch eine Schüttung aus speziell vorbehandelten **Edelsteine**.

The energy and information is then transferred from the crystals to the water and it becomes Jewel water. The water then leaves the device through the Shut-off valve (angle valve).

Amethyst crystals strengthen the general condition and relieve pain caused by nervousness, tension, stress, restlessness and insomnia.

Rock Crystal-Jewels energize, add more vitality, strengthens ones general condition.

Rose Quarz-Jewels add more sensitivity, has a stimulating and positive effect on body, harmonize.

The **crystals** strengthen one's general condition and relieve pain caused by nervousness, tension, stress, restlessness and insomnia. The special pre-treatment of the crystals enables them to transfer their characteristic features to the water that flows past in a very effective way and the water thus becomes jeweled water.

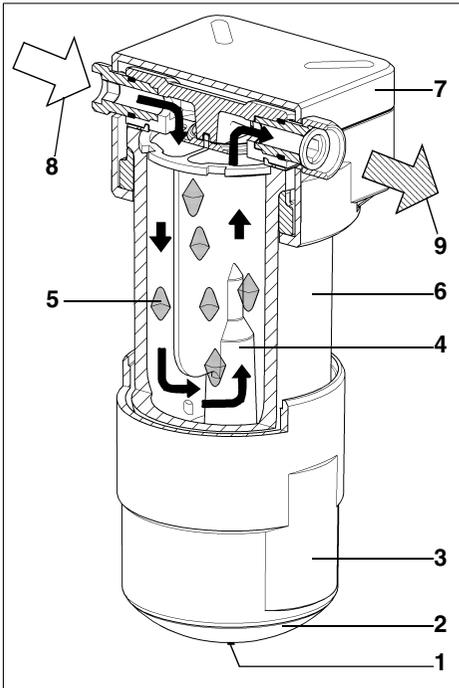


Fig. 3: Functional description

- 1 Switch
- 2 Cover Electronics Compartment with Revitalization Electronics and Battery Compartment
- 3 Cover Electronics Compartment
- 4 Light Pipe
- 5 Crystals
- 6 Transparent Hoop
- 7 Cover
- 8 Water Inlet
- 9 Jewelized water

5.3 Revitalization

In order to be able to maintain the effectivity of the crystals over a longer period, they have to be regenerated (= revitalize) at regular intervals. The revitalization of the crystals occurs using a light and energy source which harmonises especially well with the **crystals**. This light and energy source automatically revitalizes the crystals once a

week. This procedure lasts approximately 10 minutes.

The Jewel Water Device continues to work during the revitalization of the crystals, thus the device is constantly in operation and can be operated without any interruptions.

In addition to the automatic revitalization, the revitalization of the crystals may also occur manually. In order to do so, press the switch (1). In general manual revitalization is not required, however this may occur for demonstration purposes or in the event of particularly high water consumption.

5.3.1 Revitalization Electronics

The revitalization electronics regenerates the **crystals** using a light source that harmonises with the crystals.

- the **crystals** are automatically revitalized once a week. By pressing the switch (1) this procedure may also occur manually.
- Empty batteries should be replaced in time in order to ensure the continuous revitalization.

5.4 Modifications / changes / spare parts



(see chapter on “Safety information and dangers due to non-compliance”)

Only original spare parts may be used!

For reasons of safety, modifications and amendments are forbidden! These may impair the functionality of the Jewel Water Device or lead to leaks and in extreme cases, even lead to the Jewel Water Device bursting. The imprinted inspection certificates are only valid if the device is operated using the original spare parts.

5.4.1 Servicing / Repair

Prior to any work, other than ordinary operation, being performed on the Jewel Water Device, the Jewel Water Device should be pressure free! In the event of non-observance, uncontrolled water leaks may occur causing flooding and damages to the house, furniture, or other household equipment. It is essential that the instructions in the chapters “Installation” and “Maintenance” be observed.

5.5 Stoppages

(see chapter on “Safety information and dangers due to non-compliance”)

In the event of having to disconnect the flanges or unscrew the Jewel Water Device, it is essential that the chapter on “Intended Use” be observed!

- The sealing surface should be protected against damage! Damaged sealing surface are no longer a tight seals. Water leaks may result in flooding and damages to the house, furniture or other household equipment.
- Ensure that the Jewel Water Device is free of dirt! In the event of dirt on the device, the dirt may enter the device or come into contact with the drinking water when the Jewel Water Device is put into

operation. The consumption of polluted water may endanger the health of the people who drink the water.

- The Jewel Water Device should be stored in a frost-free area! Frost may cause water which is in the cavities Jewel Water Device to freeze. This may result in mechanical defects to the Jewel Water Device or leaks, or even cause the device to burst when operating pressure is restored. Water leaks may result in flooding and damages to the house, furniture, or other household equipment. In addition, persons in the direct vicinity of the Jewel Water Device may be injured by parts of the device if it bursts.
- When putting the Jewel Water Device back into operation the same instructions apply as for when a new Jewel Water Device is being put into operation.

6. Faults

In order to ensure the safety of the device and the functionality of the seals, the opening of the device or the replacement of parts subject to water pressure may only be performed by qualified personnel.

Help with faults:

Faults	Cause	Solution
The energy source no longer lights when the switch of the revitalization electronics is applied.	The battery is empty.	Replace the batteries.
The seals on the Jewel Water Device are no longer tight!	The Jewel Water Device has been exposed to excessive temperatures or come into contact with solvents.	Notify the plumber or the nearest customer support department.
The bell is cloudy!		
Cracks in the bell!		

7. Maintenance



(see chapter on “Safety information and dangers due to non-compliance”)

It is essential that the chapter on “Intended Use” be observed!

7.1 Cleaning



(see chapter on “Safety information and dangers due to non-compliance”)

Only clear drinking water may be used to clean the housing and the transparent bell.

Conventional household cleaning agents or glass cleaners may contain up to 25% in solvents and/or alcohol (spirit).

These substances may cause chemical reactions with the synthetic materials in the device and lead to embrittlements or even breakages.

It is therefore not allowed to use cleaning agents of this type.

7.2 Checking the Revitalization Electronics

The revitalization electronics can be checked by applying the switch.

- If the energizing diode lights up, then the revitalization electronics are functioning correctly and the batteries are still powerful enough to operate the revitalization electronics. This battery test does not in any way have an influence on the weekly revitalization procedure.
- If the energizing diode does not light up, then the batteries have to be replaced with new batteries.

Replacing the batteries:

- Open the cover of the electronics compartment.
- Replace the batteries in the battery compartment with identical type batteries (AAA).
- Replace the cover of the electronics compartment.
- Used batteries are to be returned to a distributor or to one of the returning facilities established to this purpose by the public recycling entities.

8. Warranty and Services

In order to ensure your statutory warranty claims, it is required that a visual inspection, in accordance with DIN 1988, section 8, be performed every 3 to 6 months, depending on the level of water consumption. The crystals should be replaced every 5 years.

9. Data Sheet

9.1 Type

JUDO JU-WEL Compact Jewel Water Device

Abbreviated name: JUW-CO

9.2 Models

Model	Bestell-Nr.
JUW-CO ¼"	8012515

9.3 Technical specifications

- Pressure loss: 0.35 bar in accordance with the nominal flow rate.
- Maximum environmental and water temperature: 30°C (86°F).
- The water to be treated has to correspond to the directive 98/83/EG issued by the Council for the quality of water destined for human consumption [03rd 11, 1998] as well as to the decree concerning renewal of the drinking water ordinance dated 21st May, 2001.
- Threaded connection in accordance with DIN 2999.

Model	Operating pressure	Nominal pressure
JUW-CO ¼"	1.5 – 10 bar	PN 10

The nominal pressure refers to the pressure stage according to which the JUW-A water device has to fulfil the requirements of DIN 19632.

Model	Weight
JUW-CO ¼"	3.1 kg

Model	Nominal Flow Rate up to	Pressure at Nominal Flow Rate
JUW-CO ¼"	0.5 m ³ /h	0.35 bar

9.4 Installed dimensions

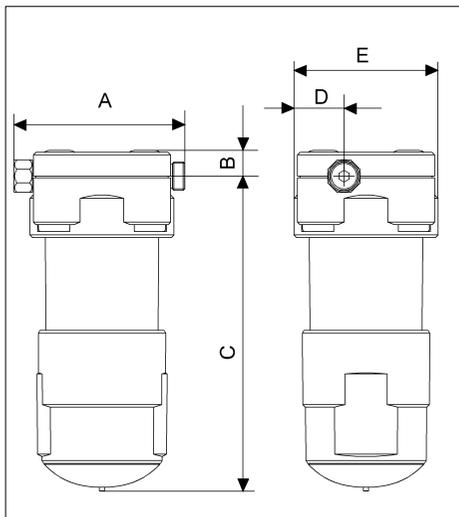


Fig. 4: Installed dimensions

Model	A	B	C	D	E
JUW-CO ¼"	105	16	185	30	85

All dimensions in [mm] (see Fig. 4)

A = Installation length

B = Height above the center of the pipe

C = Height under the center of the pipe

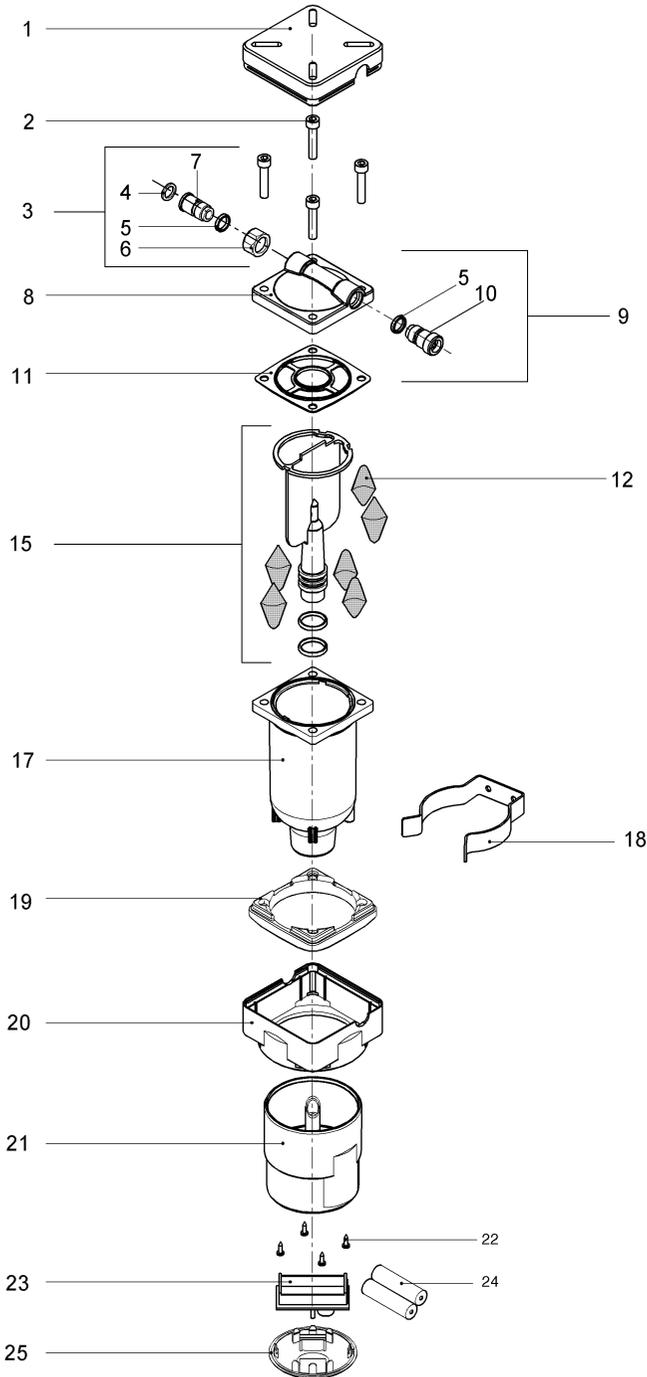
D = Depth

E = Width

9.5 Scope of supply

- Pre-installed Jewel Water Device
- wall mounting
- Installation and Operating Instructions
- 2 x microbatteries with electronic memory system (AAA)

10. Spare Parts JUW-CO ¾" – 1¼"



List of Spare Parts JUW-CO ¾" – 1¼"

Pos.	Designation (Recommended average replacement interval for wearable parts [*])	Piece(s)	Order No.	VE ¹⁾ / Piece
1	Cover with silver lacquering	1	2010352	36
2	Cylinder screw M6x25	4	2010199	2
3	Transition piece ¾" complete	1	2270044	17
4	Scraper ring *****	1	1200320	1
5	O-ring 10x2 *****	2	1609459	2
6	Union nut ¾"	1	1440167	8
7	Transition piece ¼"- ¾"	1	1440169	7
8	Cover	1	1430109	23
9	Socket ¼" complete	1	2270045	8
10	Socket ¼"	1	1440168	6
11	Profile flange seal	1	1200218	5
12	Stone mixture (Amethyst, Rock Crystal, Rose Quartz) *****		2270008	
15	Partition with O-ring 18x2.5	1	2010349	18
16	O-ring 18x2.5 *****	2	1200291	2
17	Gem housing	1	2270057	145
18	Wall mounting complete	1	2270050	32
19	Flange	1	1420013	20
20	Flange cover with silver lacquering	1	2010353	38
21	Printed cover	1	2010355	44
22	Lens metal screw	4	1650289	1
23	Light charger multi-colour	1	1500332	58
24	Microbattery 1.5 V *	2	1500202	4
25	Cover with silver lacquering	1	2010351	12

1) VE = Unit of Billing

Replacement interval

* = 1 year

***** = 5 years

Extended warranty period if a maintenance agreement is concluded!

11. Customer Support



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Installed by:

JUDO HEIFI-TOP Heating and rinse filter for the removal of sludge and gas deposits. Ideal in combination with JUDO HEIFI-FÜL.	JUDO JU-WEL Vario Jewelling fittings with changing bottles for outlet fittings.	JUDO HEIFI-FÜL Automatic heating after supply station for compliance with DIN EN 1717, ideal in combination with JUDO HEIFI-TOP
JUDO Domestic Water PROMI Rinse protective filter with JUDO PROFI-PLUS technology, pressure reduce and backflow preventer.	JUDO ZEWÄ WATER-STOP Central water safety fitting. Stops water flow in the event of water pipe bursts and detects leaks.	JUDO BIOSTAT-COMBI / -COMBIMAT The perfect combination of hygiene unit and lime protection unit. Prevents your installation from lime sedimentation and reduces morbid germs such as Legionella.

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