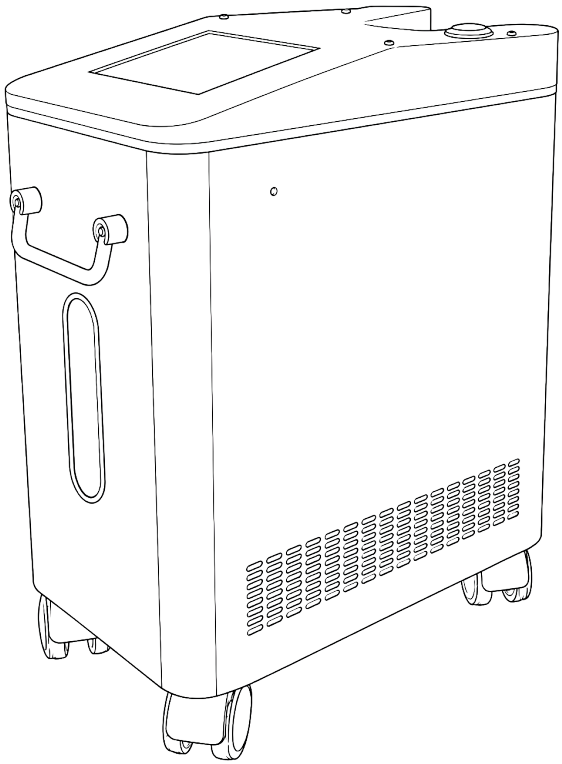
PRAGMA®

HYDROGEN

HYDROGEN GENERATOR

USER MANUAL



APPLIES TO MODEL: H_2/O_2 (1500)

THANK YOU FOR PURCHASING OUR PRODUCT.

PLEASE READ THIS MANUAL CAREFULLY BEFORE USE AND KEEP IT FOR FUTURE REFERENCE.

Distributor:
PRAGMA PROSTA SPÓŁKA AKCYJNA
ul. Piotrkowska 46**/**8U, 90-265 Łódź
NIP: 7252365199 **KRS:** 0001228635 **REGON:** 544237689

Contact address:
Pragma System Sp. z o.o.
ul. Gajowicka 170**/**2, 53-150 Wrocław

Manufacturer:
KTR SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ
ul. Legnicka 3**/**80, 70-134 Szczecin
NIP: 9552594864 **KRS:** 0001234843 **REGON:** 544493493

Manual version: 1.0

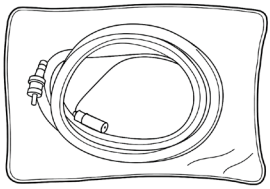
Issue date: 28 October 2026

CHECKING THE CONTENTS OF THE PACKAGE

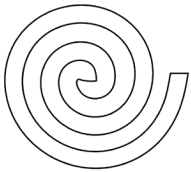
After unpacking the device and before using it, read this user manual carefully. Then check that the device shows no visible damage and that all its parts are intact.

LIST OF PARTS

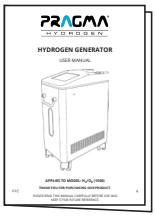
To ensure correct and trouble-free use of the device, check before installing it that the set contains all the parts listed below. If any of them is missing, contact our company or an authorised distributor of the device.



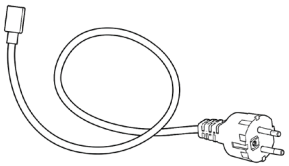
TWO SETS OF SINGLE TUBES, ONE SET OF DOUBLE TUBES



DRAIN TUBE (1 pc.)



USER MANUAL (1 pc.), WARRANTY CARD, REPAIR CARD



POWER CABLE (1 pc.)

PRAGMA HYDROGEN

SAFETY PRECAUTIONS

KEEP THE DEVICE AWAY FROM SOURCES OF IGNITION



Smoking and the use of open flames are prohibited while the device is in use, to avoid danger.

PROHIBITED

DO NOT LAY THE DEVICE ON ITS SIDE OR TURN IT UPSIDE DOWN.

During transport, the device must not be placed upside down or on its side.

Empty the tank before transport and before a longer break in use.

PROHIBITED

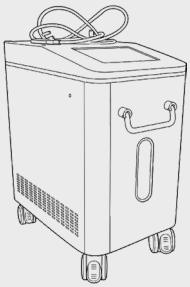
VENTILATION

Place the device indoors, in a well-ventilated spot, away from direct sunlight.

ATTENTION

KEEP IT CLEAN

Do not place objects around the device that could block the air outlet and cause an excessive rise in temperature, a shutdown of the device or a drop in performance.



No part of the device should come into contact with oil, grease or similar substances, to prevent contamination of the gas and danger.

While the device is operating, all tubes and gas outlets must remain unobstructed; the tubes must not be bent or twisted.

DO NOT START WITH THE CAP FITTED

Before starting the production of hydrogen and oxygen, first remove the cap from the gas outlet.

DO NOT START WITHOUT THE TUBE CONNECTED

In the event of a power failure, disconnect the tube from the gas outlet. Do not start the production of hydrogen and oxygen or touch the gas outlet unless the tube is correctly connected. This prevents accidents such as a fire caused by static electricity.

PROHIBITED

USE ONLY PURIFIED OR DISTILLED WATER

If the use of other water or mineral water damages the device, the user is liable for the resulting damage.

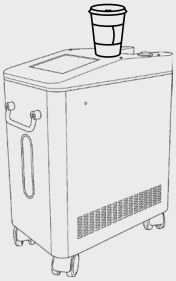
PROHIBITED

NO UNAUTHORISED REPAIRS OR DISASSEMBLY



Persons without the appropriate qualifications must not repair or disassemble the device without authorisation. Otherwise, accidents such as fire or electric shock may occur.

PROHIBITED



DO NOT PLACE ANY OBJECTS ON THE DEVICE, ESPECIALLY LIQUIDS.

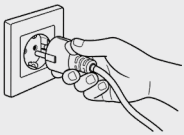
PROHIBITED

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HYDROGEN

USAGE GUIDELINES

SWITCH THE DEVICE OFF WHEN IT IS NOT IN USE

When the device is not in use, switch off the power and unplug the power cable from the socket.



ⓘ **ATTENTION**

TOPPING UP WATER CORRECTLY

Before using the device, connect it to the power supply and switch it on. A red indicator on the panel shows that the water level is too low. Open the tank lid and top up the water through the filler opening. Stop filling when you hear the message that the tank is full. Do not overfill the tank, so that water does not get inside the housing and damage the device.

ⓘ **ATTENTION**

RECOMMENDED: CHANGING THE WATER

With regular use, change the water at least once a week. Empty the tank before a longer break in use.

ⓘ **ATTENTION**

WATER IN A NEW DEVICE

Why there may be water in a new device: before leaving the factory, every device is tested with water, so small amounts of it may remain inside. If a newly delivered device contains a small amount of water, this is normal.

ⓘ **ATTENTION**

POWER SOCKET REQUIREMENTS



The rated power of the socket used must not be lower than the maximum power of the device.

The socket must be properly earthed.

ⓘ **ATTENTION**

VENTILATION AND HEAT DISSIPATION

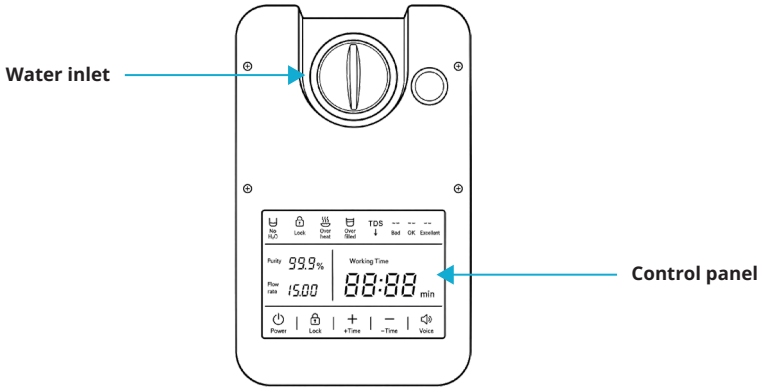


Leave enough space on both sides of the device for heat to dissipate. If the temperature of the device exceeds the set value, switch it off and let it cool down before using it again.

ⓘ **ATTENTION**

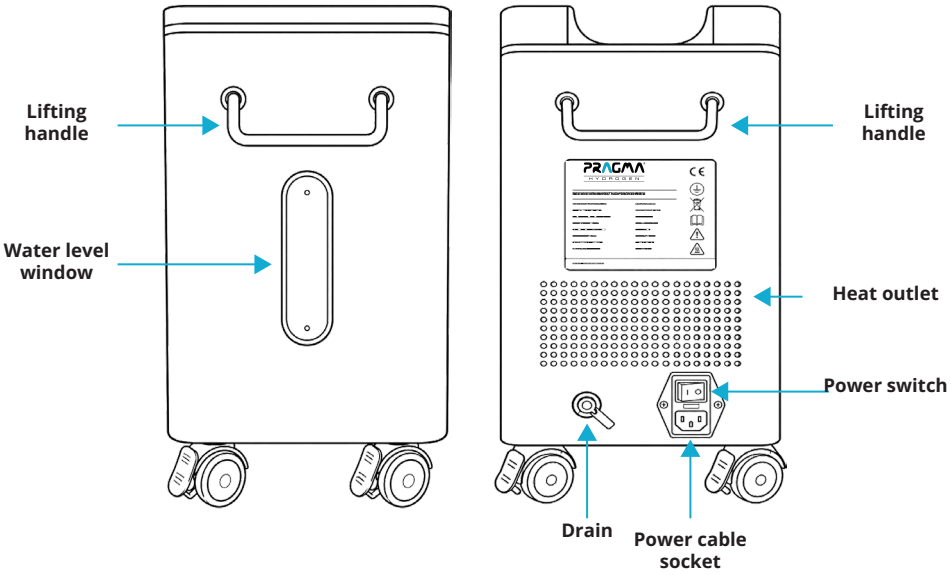
PARTS OF THE DEVICE

TOP OF THE DEVICE



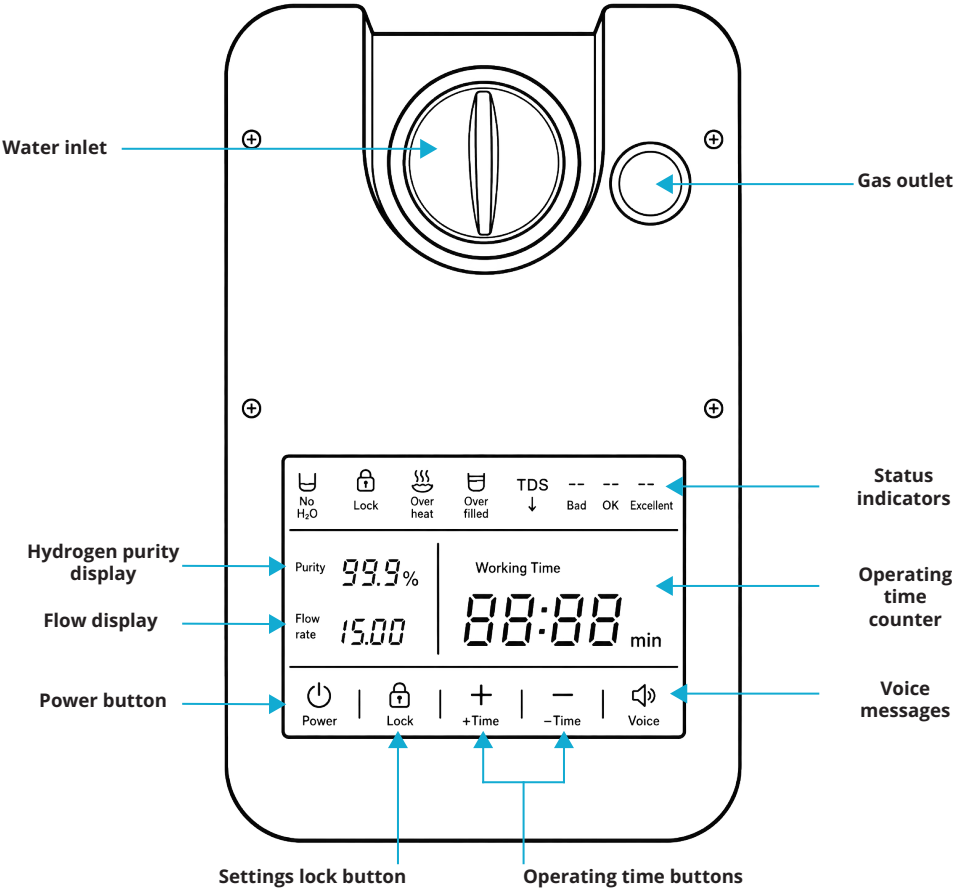
FRONT OF THE DEVICE

BACK OF THE DEVICE

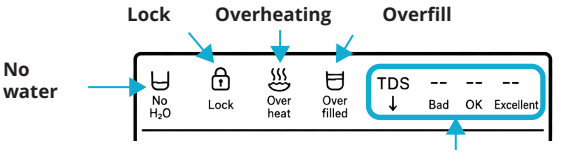


PRAGMA HYDROGEN

CONTROL PANEL



STATUS INDICATORS EXPLAINED



Water quality (TDS)

Shows the quality of the water in the device. The indicator can show:

Bad – poor water quality
OK – correct water quality
Excellent – very good water quality

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OPERATING INSTRUCTIONS

1 Filling the tank with water

Before first use, switch the device on, open the tank lid and pour in purified or distilled water. Pour the water in slowly so as not to overfill the tank. When the tank is full, the device gives the voice message: “The tank is full, please stop filling”. Then close the tank lid.

(If the device is damaged as a result of using another type of water or mineral water, the user is liable for the resulting damage.)

2 Preparing the device for operation

First remove the cap from the gas outlet and connect the tube correctly to the outlet. Then connect the power cable and switch on the main power switch. The device goes into standby mode.

3 Switching the device on

Touch the “Power” button to start the device. The red indicator lights up to show that it is ready for operation. The device gives the voice message: “Welcome. The hydrogen and oxygen device is ready for use.”

4 Setting the operating time

Use the “+ Time” or “– Time” buttons to set the required operating time. Each touch of a button increases or decreases the time by 30 minutes. The operating time can be set from 30 minutes to 5 hours. Voice messages are given while the time is being set. Once the time is set, the device starts producing hydrogen and oxygen. The LCD display shows the remaining operating time.

5 Starting the inhalation

About 1 minute after starting the device, you can begin inhaling hydrogen and oxygen.

6 Locking the control panel

To switch the lock on, touch and hold the “Lock” button for 3 seconds. The lock indicator lights up and the device gives a voice message that the panel is locked. The control buttons are then inactive.

To switch the lock off, touch and hold the “Lock” button again for 3 seconds. The lock indicator goes out, the device gives a message that the panel is unlocked, and the control panel buttons become active again.

7 Switching voice messages on and off

To switch voice messages off, press and hold the “Voice” button for more than 2 seconds. The device says “Voice off” and the voice function is switched off.

To switch it on again, press and hold the “Voice” button for more than 2 seconds. The device says “Voice on”.

(Note: with the voice function switched off, the device gives no messages when the buttons are used. After the device has been switched off with the main switch or disconnected from the power supply and then started again, the voice function is switched on automatically.)

8 End of operation

When the countdown ends, the device automatically stops producing hydrogen and oxygen and then goes into standby mode.

9 Switching the device off

When the device is not in use, switch it off with the main power switch and unplug the power cable from the socket.

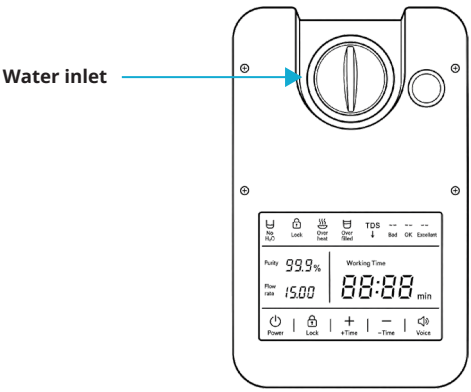
PRAGMA HYDROGEN

ADDING WATER

Turn the water tank lid 90° anticlockwise, then lift it off and slowly pour in the water. Do not exceed the maximum water level marked on the water level window on the side of the device.

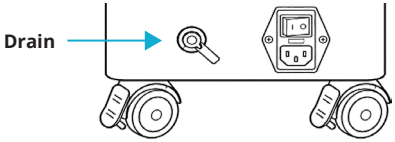
After filling the tank, put the lid back on and turn it 90° clockwise to close the water tank properly.

TOP OF THE DEVICE



DRAINING THE WATER

After a week of use, empty the tank and change the water. If the device is to be transported, empty the water tank completely beforehand. Switch off the power before draining the water.



BACK OF THE DEVICE

1. **Remove the cap from the drain outlet** to start draining the water. If necessary, the drain tube can be connected to the drain.

   Removing the cap: Press the ring at the connector inwards and, while holding it pressed, gently pull out the cap.

   Fitting the cap: Push the cap fully into the connector, then pull it gently outwards to make sure that it has locked correctly.

2. When the tank is completely empty, refit the cap in the drain outlet.

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TECHNICAL SPECIFICATIONS

	VALUE
PRODUCT NAME	HYDROGEN AND OXYGEN GENERATOR
MODEL	H_2/O_2 (1500)
TOTAL GAS OUTPUT (ml/min)	1500
HYDROGEN OUTPUT (ml/min)	1000
RATED POWER (W)	320
NET WEIGHT (kg)	11.2
GAS OUTLET	HYDROGEN AND OXYGEN OUTLET
WATER REQUIREMENTS	PURIFIED WATER (RESISTIVITY ≥ 1 MΩ·cm)
RATED VOLTAGE	AC 220–240 V, 50/60 Hz
OVERALL DIMENSIONS (mm)	210 × 330 × 400
TYPE	PS-V1

TROUBLESHOOTING

CODE	FAULT	CHECK AND SOLUTION
E0	PEM membrane failure – the device stops working.	The electrolytic cell is damaged, is not working properly and must be replaced. Switch the device off and contact an authorised service centre.
E1	The device stops working. The overheating indicator is lit.	If the temperature inside the device is too high or the operating time too long, check that the rear cooling fan is working properly and that the temperature sensor is not damaged.
E2	The device stops working.	The liquid level sensor is damaged. Switch the device off and contact an authorised service centre.
E3	The device stops working. The water quality indicator shows “Bad” (poor water quality).	Open the drain at the back of the device and connect the drain tube. When the tank is completely empty, pour in a suitable amount of purified or distilled water. Empty the tank again, then close the drain, fill the device with purified or distilled water up to the maximum level and start it again.
E4	The device stops working. The “Water shortage” indicator is lit (low water level).	The water level in the tank is too low. Top up with about 1500 ml of clean or distilled water.
E5	The device stops working.	The device is tilted too far. Place it on a flat, level surface.
E6	The device stops working. Water is leaking.	There is too much water in the tank. Open the drain, connect the drain tube and let out the excess water down to the correct level.
E7	The device stops working.	The gas outlet tube is blocked; check that it is not bent or obstructed. Once the tube is clear, the error should disappear.

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PRODUCT WARRANTY CARD (ORIGINAL)

CUSTOMER NAME		**ADDRESS**	
PHONE		**PURCHASE DATE**	
POINT OF SALE		**ORDER NO.**	
MODEL		**SERIAL NO.**	

REPAIR LOG		
DATE	**DESCRIPTION OF REPAIR / SERVICE WORK**	**TECHNICIAN**

Thank you for choosing our product. Before use, read the User Manual and the warranty terms carefully. The warranty covers material and manufacturing defects that appear within one year of the date of purchase, under the terms below.
1. The product is subject to the applicable warranty and consumer protection law.
2. After buying the device, the user should fill in this warranty card promptly and correctly. A warranty card that has been altered, damaged or is illegible may be considered invalid.
3. To protect your rights, check carefully that the information entered in the warranty card is correct.
4. When making a warranty claim, fill in the warranty card accurately and completely.
5. Before handing the device over for service, empty the water tank completely and protect the device properly for transport. The user is liable for damage caused in transport by inadequate protection of the device.
6. Accessories not made by our company are covered by the warranty terms of their manufacturer.
7. Consumables not related to a defect of the device are not replaced or refunded under the warranty.
8. The warranty does not cover:

(1) Use or maintenance of the device contrary to the requirements of the user manual.
(2) Damage caused by events beyond control, such as natural disasters, earthquakes, fires, lightning strikes or other external factors.
(3) Claims made after the end of the warranty period.
(4) Installation, repairs, modifications or disassembly carried out by unauthorised persons, use of an incorrect supply voltage, penetration of foreign bodies, water or other substances into the device, and the resulting damage to the device.
(5) Damage to the device caused by spare parts that were not supplied or approved by the manufacturer.
(6) Optional items and additional equipment.

9. The detailed rules for handling the warranty are set out in the manufacturer's warranty terms and in the applicable law.

CUT ALONG THE DOTTED LINE

PRODUCT WARRANTY CARD (COPY)

CUSTOMER NAME		**ADDRESS**	
PHONE		**PURCHASE DATE**	
POINT OF SALE		**ORDER NO.**	
MODEL		**SERIAL NO.**	

PRAGMA®

HYDROGEN

Distributor:

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NIP: 9552594864 **KRS:** 0001234843 **REGON:** 544493493

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