diagenode

Innovating Epigenetic Solutions

Continuous Valve

for Water Cooler

Installation Guide

Version 6 | 08.05.13

Contents

Introduction

Warnings

These instructions cannot claim to cover all details of possible equipment variations, nor in particular can they provide for every possible example of installation or operation.

Trouble-free and safe operation of the unit is dependent on proper transport and installation by qualified personnel.

Guarantee

Limited one year global warranty.
Diagenode guarantees its products against possible manufacturing defects in material and workmanship. Diagenode products are rigorously tested to ensure that the products you trust meet stringent standards. Consequently, if a problem occurs with a Diagenode product and the problem is caused by manufacturing defects in material and workmanship, Diagenode will, in its discretion, either fix or replace the product in accordance with the warranty terms and conditions stated herein. The warranty applies only to **the first purchaser of the product for a period of one year starting from the date this product was delivered.**

In case of repair or replacement on a product under warranty, expenses will be at Diagenode's charge, including any costs required to return the repaired or replacement product to you.
This warranty covers only manufacturing defects and does not cover any damage caused by misuse (non-respect of recommendations described in this manual), neglect, accidents, abrasion, exposure to extreme temperatures, solvents, acids.

Intended use of the equipment

The **Continuous Valve for Bioruptor®** as well as all components from this parcel, including plastic tubings and strips must be used as a junction between the Water Cooler and a Bioruptor®.

This equipment is designed to be used in the above described application only. Any medical application is out of scope.

Equipment Components

	Component	Quantity
1	**Plastic Connector for motor lid**	2
2	**Tap Valve**	1
3	**Tie Wraps**	10
4	**Tubing blue and red**	2 x 2 m
5	**Cutting Device**	1


1.

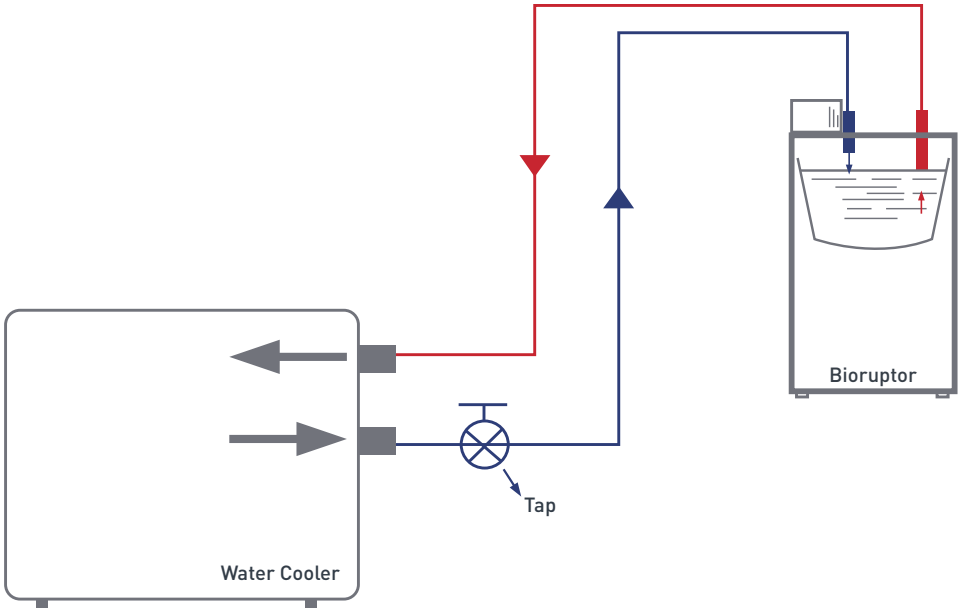

2.


3.


4.


5.

Global scheme



Environmental Conditions

Devices are designed to be safe under the following conditions:

- Indoor use
- Altitude up to 2 000 m
- Operating external temperature 0 °C to 40 °C
- Fluid temperature 4°C to 50°C
- Maximum relative humidity 80 % for temperatures up to 31 °C decreasing linearly to 50 % relative humidity at 40 °C, without condensation
- MAINS supply voltage from 100V AC to 230V AC with fluctuations up to ±10 % of the nominal voltage
- Transient overvoltages typically present on the MAINS supply
- Degree of protection: IP20
- POLLUTION DEGREE 2 (Normally only non-conductive POLLUTION occurs. Occasionally, however, a temporary conductivity caused by condensation is expected)

Warning:

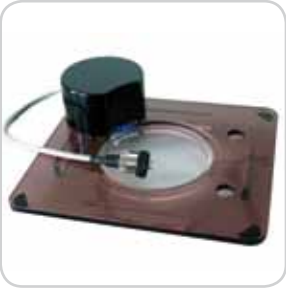
Never use in atmosphere with flammable gas.
Never use in any location where there is a possibility of extreme dust.
Environment exempt from sunlight is required.

Equipment installation

Before starting the installation, turn the main switch off and make sure that the unit is not plugged into an electrical outlet.

Location Requirements:
Location Requirements: The Water Cooler must be located below the Bioruptor® (minimum elevation difference 400 mm or 17.74 inch).

1. Unpack the Water Cooler.
2. Place the tap valve on the outlet (blue connector) as shown above. (**Note:** Red connector and red tubing will ensure the waterflow from the sonication bath to the Water Cooler. Blue connector and blue tubing will ensure the waterflow from the Water Cooler to the sonication bath).



3. Place the two black plastic connectors on the motorized lid. The connectors can be placed into one or the other hole of the motorized lid.

   Screw the plastic nut over the motorized lid. The short white pieces of tubing have to be inserted in the plastic connectors.

IMPORTANT NOTE:

Please make sure that the Bioruptor® is always placed on a level surface and that the water cooler is always placed below the Bioruptor®.

If you need to cut a part of the tubing, always use the provided Cutting Device. Never use scissors because pieces of tubing with bad cuts generate leaks at junctions. Only properly cut tubes can be inserted in the connectors.



4. Position the sonication bath in front of the soundproof box upon the final site. Connect the Bioruptor® sonication bath to the Water Cooler with the red and blue tubes by inserting them in the appropriate connectors.

(**Optional:** Cut the length you need for the output and input flow. Make sure there is enough slack.) The red and blue tubes must go through the soundproof box holes before being connected to the motorized lid (see picture).

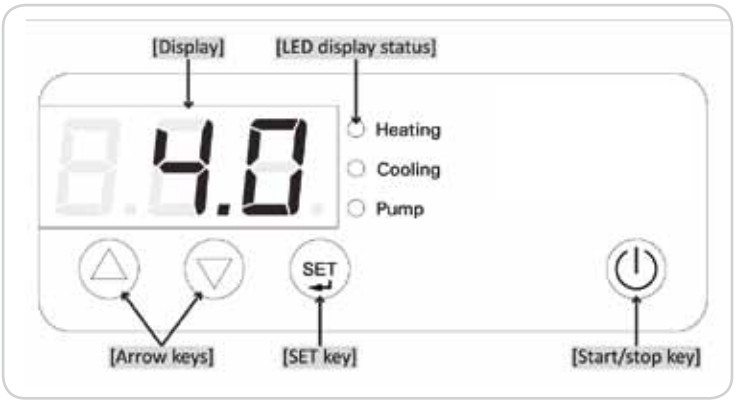

(5)

(6)

5. Plug the power cord of the *Water Cooler*

6. Press main switch on the front side of the *Water Cooler.*

7. Fill the tank of the chiller with 3.5 liter and the sonication bath of the Bioruptor® up to the red line of the sticker (700 or 730 ml; depending on the model) with **distilled water only** (do not use deionized water!).



8. Temperature can be set **to 4°C** by pushing the SET key SET and the arrow key ▽ of the control panel at the same time.

9. Unscrew the tap to allow the circulation of a moderate flow of water.

10. Press Start/Stop key to control the temperature

IMPORTANT NOTE:
The correct flow is 0.5 liter per minute (that has to be determined manually).

Instruction for use

Sonication bath and Water cooler

Water level and quality

- The sonication bath and the Water cooler must be filled with **distilled water only**! The water level of the sonication bath should always reach the red line (sticker on the wall of the tank; replacement stickers can be obtained from Diagenode).
- To obtain the best sonication performance, the water in the sonication bath and the Water cooler have to be changed **at least once per week**! (Please use the provided plastic pump as shown in the images below to release the water from the Water cooler and sonication bath).

Water temperature

- The water in the sonication bath must be kept at 4°C. Ultrasonic waves produced by the Bioruptor® generate heat. A drop off in sonication efficiency will occur above 8°C. To ensure preservation of the samples and to prevent damage to the instrument it is necessary to start the sonication process with cold water and to keep it at 4°C during the sonication process.

Never set the temperature below 4°C for the Water cooler since this will damage the machine severely!

Technical Assistance & Ordering Information

Diagenode s.a. BELGIUM | EUROPE

Avenue de l'hôpital,1
Tour GIGA, 3rd Floor
4000 Liège - Belgium
Tel: +32 4 364 20 50
Fax: +32 4 364 20 51
techsupport@diagenode.com
orders@diagenode.com

Diagenode Inc. USA | NORTH AMERICA

400 Morris Avenue, Suite #101
Denville, NJ 07834 - USA
Tel: +1 862 209-4680
Fax: +1 862 209-4681
techsupport.na@diagenode.com
orders.na@diagenode.com

For a complete listing of Diagenode's international distributors, visit: http://www.diagenode.com/pages/distributors.html
For the rest of the world, please contact Diagenode s.a.

MA-CV-V5_08_05_13

Ordering information

Description	Cat. No.
Cooling System	
Water Cooler	BioAcc-cool
Bioruptor®	
Bioruptor® Standard	UCD-200 TM (1.5 ml) UCD-200 TO (1.5 ml & 15 ml) UCD-200 TS (0.5/0.65 ml)

diagenode

Innovating Epigenetic Solutions

Diagenode s.a. BELGIUM | EUROPE

Avenue de l'hôpital, 1
Tour GIGA, 3rd Floor
4000 Liège, Belgium
Tel: +32 4 364 20 50
Fax: +32 4 364 20 51
orders@diagenode.com
info@diagenode.com

Diagenode Inc. USA | NORTH AMERICA

400 Morris Avenue, Suite 101
Denville, NJ 07834 USA
Tel: +1 862 209-4680
Fax: +1 862 209-4681
orders.na@diagenode.com
info.na@diagenode.com

For a complete listing of Diagenode's international distributors visit: http://www.diagenode.com/pages/distributors.html
For rest of the world, please contact Diagenode s.a.