## Garantie-Urkunde

Guarantee-Document Document de garantie Garantiebewijs



Bitron

### Datum:

Date: Date: Datum:

## Stempel und Unterschrift

Stamp and Signature Cachet et Signature Stempel en handtekening







Directions for use Mode d'emploi Gebruiksaanwijzing







Use these instructions to familiarize yourself with the device before you use it for the first time. It is absolutely essential that you observe the safety guidelines on the proper and safe use of the device

For safety reasons, children and young people under 16 years of age, as well as people who cannot recognize potential hazards or who are not familiar with these instructions, must not use this devicel

Please keep these instructions in a safe place! In the event of a change of ownership, please pass these instructions on to the new owner along with the product.

# Symbols

The symbols used on the device and in these instructions have the following meaning:



Caution! Important advice about hazards!



Important information!



Caution! Refer to the instructions!



Caution! Disconnect plug!



Lamp is suitable for direct attachment to surfaces with normal flammability.

Protection against fingers coming into contact with IP 24 dangerous parts and protection against water spray getting in.



Keep away from direct sunlight!



Caution! Magnetic field!



Potential hazards for people with pacemakers!



Caution! Dangerous UVC radiation!

## Instruction for use



# Appropriate use of device

The Bitron model range is suitable for cleaning normal pond water between +4°C and +35°C. Irradiation of the pond water with short-wave UVC light results in germs and bacteria being killed off and algae being flocculated.

Optimum cleaning of ponds is achieved in combination with OASE pond filters and OASE pumps.







# Safety guidelines

- Caution: Dangerous ultraviolet radiation. The rays from the UVC lamp are a danger to your eyes and skin! Never operate the lamp of the Bitron outside the casing!
- For your own safety, contact an electrician if you have any questions or problems!
- Never immerse the device in water!
- Always disconnect the plugs of all devices that are in the water and of this device before you carry out any work on the device!
- Only operate the Bitron from a safety socket. This must be installed in accordance with the relevant national regulations (VDE, EN ...). Make sure that the ground conductor is securely installed all the way to the Bitron.
- Never use installations, adapters, or connecting cables without a safety contact!
- Make sure that the Bitron is supplied with a measured fault current not greater than 30mA via a fault current protection switch (Flor RCD).
- Electrical installations near garden ponds and swimming pools must comply with international and national installation quidelines.
- Do not operate the Bitron when there are people in the water!
- Do not carry or pull the Bitron by its connecting lead!
- Keep the connecting points (plugs) dry!
  - Do not operate the Bitron if the connecting lead, sight glass or casing appear to be defective!
- Never pump any liquids other than water!
- Never open the casing of the Bitron or its accessories unless expressly directed to do so in the instructions.
- Never operate the Bitron without water flowing through it!
- Caution! Never operate the Bitron with a water pressure greater than 0.5 bar (5 mwh)!





- Only operate the Bitron in a horizontal standing/hanging position with the supports at the bottom.
- Please note: the Bitron is fitted with permanent magnets. Their magnetic fields can:
  - affect pacemakers. People with pacemakers should therefore avoid contact with the Bitron.
- interfere with electrical and electronic components. Such equipment should therefore be kept away from the Bitron.
- delete data on data carriers. These should therefore be kept away from the Bitron.



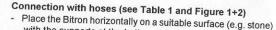








- Be sure to read and observe the safety guidelines prior to installation!
- Compare the electrical data of the supply grid with that of the type label. This data must be consistent.
- Install the Bitron at least 2m from the edge of the pond!
- Position the Bitron so that it won't be flooded!
- Put the Bitron where it will not be exposed to direct sunlight!
- Lay the hoses and the connecting lead in such a way that they do not present an obstacle and cannot be damaged!
- Choose the biggest possible hose diameter for the inflow from the pump to the Bitron. Cut the 2" hose adapter to the appropriate diameter (see Figure 2). The maximum flow rate along the UVC lamp (and therefore Outlet 2) of the Bitron 36 and 72 models may not exceed 4500 l/h and 9000 l/h respectively.
- Please note that every narrowing of the hoses and every twist reduces the flow rate.



- with the supports at the bottom. It is recommended that you attach it with four screws in the holes provided for this.
- You can adjust the flow rate by selecting the 11/2" hose adapter diameters for the outlets. Cut the 11/2" hose adapters to the appropriate diameter.
- Connect the hose adapters to the Bitron with the union nuts and gaskets.
- Attach the appropriate connecting hoses and secure these with hose clips.

# Instruction for use



# Connection to Biotec (see Table 2 and Figure 3-6)

- When connecting to Biotec 5 and 10, push the two spacers onto the two supports on the side with the two 1 1/2" threaded connecting piece.
- Push an O-ring onto each 1 1/2" threaded connecting piece.
- Slide the two 1 1/2" threaded connecting pieces of the Bitron through the two holes of the Biotec. The supports of the Bitron must point towards the ground. Caution: risk of tilting with Biotec 5!
- Push another O-ring onto each 1 1/2" threaded connecting piece.
- You can adjust the flow rate by selecting the throttle discs. Insert the correct throttle disc into the correct threaded connecting piece.
- To fix the throttle disc, insert a gasket into the inlet nozzle (supplied with Biotec). If no throttle disc is used, the gasket is not required.
- Screw the inlet nozzles onto the threaded connecting pieces, making sure they are tight.
- Make sure that the openings of the inlet nozzles are pointing to the bottom of the container.
- Support the Bitron with a suitable base.



# Start-up

- First switch on the pump and wait until the Bitron is full of
- Check that all the connections are watertight. If necessary, tighten any connections that are not watertight.
- Only now should you switch on the Bitron.
- Check at the sight glass that the Bitron is functioning normally. If there is a blue gleam of light, then it is functioning normally (see Figure 8).
- When starting up the Bitron and Biotec for the first time: wait 4-6 weeks before switching on the Bitron in order to allow the microorganisms to build up in the filter.
- Operate the Bitron continuously until the required water quality is achieved.
- In order not to reduce the life of the lamp and the ballast, do not switch the Bitron on more than 2-3 times a day.



# Maintenance

Make sure that the Bitron is never operated without water flowing through it! Always keep the water outlet of the Bitron clear! Regularly remove any large dirt particles in the outlet hoses/inlet nozzles of the Bitron! Check at the sight glass that the Bitron is functioning normally. If there is a blue gleam of light, then it is functioning normally (see Figure 8). Clean the Bitron as and when required (see Cleaning).



# Cleaning

# Cleaning mechanism (see Figure 7)

The Bitron 36 / 72 is fitted with an integrated cleaning mechanism. You should use this mechanism at least once a week.

- Disconnect the plugs from the pump and the Bitron.
- Turn the handle 90° in an anti-clockwise direction.
- Pull / push the handle out / in several times. Caution! When doing this do not exert any lateral forces on the rod as this may bend it! Note: This action may lead to drops forming on the rod.
- Put the handle back in the Open position.
- Close the handle by turning it 90° in a clockwise direction.
- First switch the pump on again and wait until the Bitron is full of water.
- Switch the Bitron on again.



# Replacing/Cleaning quartz tube (see Figure 9)

- 1. Disconnect the plugs from the pump and the Bitron.
- 2. Let all the water drain from the Bitron.
- 3. Caution! Keep electrical components and their environment dry during each stage of the cleaning process! Do not touch the UVC lamp and the quartz tube directly with your fingers.
- 4. Remove the lid.
  - 4.1 To do this, remove the 8 screws.
  - 4.2 Check that the gasket and the two O-rings are correctly in place using the glass rod.
  - 4.3 Make any necessary adjustments.
- 5. To remove the base, press on the handle at the side.
- 6. Pull the base off the base pins of the UVC lamp.
- 7. Carefully remove the UVC lamp from the quartz tube.
- 7.1 The O-ring on the UVC lamp is only for protection during transport (is therefore not needed).
- 8. Remove the base holder by removing the four screws.

# Instruction for use







- 9. Carefully remove the quartz tube and the O-ring.
- 10. Clean the quartz tube and the O-ring thoroughly with water and a soft cloth.
  - 10.1 Check both parts for any damage and, if necessary, replace them with original spare parts.
- 11. Attach the O-ring to the quartz tube. Carefully insert the quartz tube with the O-ring into the casing.
- 12. Attach the base holder with the four screws (max. torque 2.5 Nm (tightened by hand)).
- 13. Check that the quartz tube is watertight:
  - 13.1 Attach the lid with the gasket, the glass rod and the 8 screws (max. torque 2.5 Nm (tightened by hand)).
  - 13.2 Switch on the pump only and let it run for at least 15 minutes.
  - 13.3 Let all the water drain from the Bitron again.
  - 13.4 Remove the lid again (see Point 4).
  - 13.5 If you discover any leaks, drain the water and repeat the assembly of the quartz tube.
- 14.If there are no leaks:
  - 14.1 Carefully insert the UVC lamp into the quartz tube.
  - 14.2 Put the base onto the base pins of the UVC lamp.
  - 14.3 Push the base into the base holder using the handle on the side. Caution! The lead must not lie on top of the base.
  - 14.4 Attach the lid with the gasket, the glass rod and the 8 screws (max. torque 2.5 Nm (tightened by hand)).
- 15. First switch on the pump and wait until the Bitron is full of water. 16. Switch on the Bitron.





# Replacing lamp

- If the event of a failure of the UVC lamp, remove the lamp as described in Points 1-7 Replacing/Cleaning quartz tube.
- Check the lamp for damage and, if necessary, replace it.
- The UVC lamp should be replaced with a new one after 8,000 - 10,000 hours of operation in order to maintain optimum performance of the Bitron.
- In the Bitron 72, a faulty lamp results in both lamps being switched off for safety reasons! You only need to replace the faulty lamp. After 8,000 - 10,000 hours of operation, it is recommended that you replace both lamps.
- Insert the lamp as described in Points 14.1 16 Replacing/ Cleaning quartz tube.



## Advice on disposal

If you plan to scrap the device, remove the UVC lamps beforehand. UVC lamps should not be disposed of with domestic waste! Take faulty UVC lamps to a drop-off centre so that they can be disposed of in an environmentally responsible way.



# Storage/Winterstorage

When frosty weather is expected, you must uninstall the device! Clean the device thoroughly (see Cleaning). Check the Bitron for damage.

Store the Bitron in a dry and frost-free place.



# Repairs / changing cable

For repairs / changing the cable, please send the defective Bitron direct to the supplier / manufacturer.



# Trouble-shooting

Take the following measures if there is no improvement in water quality 4 weeks after switching on the Bitron:

Fault	Possible causes	Measures		
Water not clear	1. UVC lamp is not on	1. Check electrical connections		
	2. Dirty quartz tube	2. See Cleaning		
	3. Inappropriate pump capacity	3. See Table 1		
	Incorrect amount pumped through the Bitron	4. See Table 2		
	<ol><li>Inappropriate Bitron size for pond volume</li></ol>	5. See Table 3		
	Suspended material is brown and sinks to the bottom	Remove algae and leaves and improve mechanical filtration with Biotec 5 / 10 or 30.		
	Pond is extremely dirty and nutrient-rich	Check the nitrate content, change the water and clean the basin. Use Biotec 5/10or 30		

## Instruction for use

Fault	Possible causes	Measures	
Water not clear	too large	The guideline is: max. 60 cm fish length for every 1,000 l of pond water.	
	9. Lamp has no UVC output	<ol><li>The lamp should be replaced after 8000-10000 hours of operation.</li></ol>	



Jahr Year An Anno Año Jaar

### Guarantee

For this OASE equipment we grant a guarantee of 1 year. The guarantee begins with the day when the equipment is sold or before, when it is operated for the first time. This document is valid only on presentation of the receipt or invoice.

Our guarantee covers fault in material or defect of fabrication. Defects due to faulty mounting or operation, as well as deficient attendance, the effects of frost, furring or inexpert repair attempts, as well as all damage due to wear on wear parts are not covered by our guarantee!

In our fabrication first quality material is used. If nevertheless, the unit should give reason for a justified complaint, then you have, after our choice, a claim for the retouching or replacement of the defective parts free of charge. If you have to claim to our guarantee, return the defective unit or part of the unit with the receipt or copy of invoice, this guarantee card and statement of the defect to the place of purchase. Parts not manufactured by us (e.g. lamp equipment) are subject to the manufacturer's guarantee conditions. We do not accept liability for subsequent damage resulting from the failure of this device. Claims for damages on the transport shall only be recognized if the damage is stated and confirmed by the carrier (Railways, Post-office). Only then can we claim for compensation from the carrier.

Tabelle 1, Tabel 1, Tableau 1, Tabel 1

Pumpe Pump Pompe Pomp	Ø Zulauf Inlet Asp. Toevoer	Ø Schlauchtülle, Ø Hose Adapter, Ø Raccord universel, Ø Slangmondstuk				
		Bitro	on 36	Bitron 72		
		Ablauf 1 Outlet 1 Ecoul. 1 Afvoer 1	Ablauf 2 Outlet 2 Ecoul. 2 Afvoer 2	Ablauf 1 Outlet 1 Ecoul. 1 Afvoer 1	Ablauf 2 Outlet 2 Ecoul. 2 Afvoer 1	
Aquamax 10000	1½"	1"	11/4"	zu/close/ fermé/dicht	11/2"	
Aquamax 15000	11/2"	11/2"	11/4"	3/4"	11/2"	
Promax 20000	2"	11/2"	11/4"	3/4"	11/2"	
Promax 30000	2"	11/2"	1"	11/2"	11/2"	



Hose tail/connection cutting point Point de coupe de l'embout à olive

Zaagpunt slangtuitje

(b) Flachdichtung
Flat gasket
Joint plat
Platte pakking

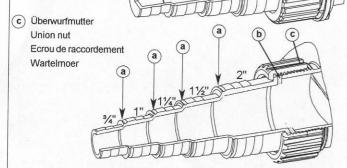
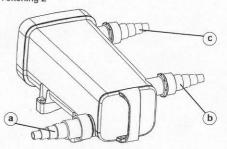


Bild 2, Sketch 2, Figure 2, Tekening 2

a Zulauf Inlet Arrivée Toevoer



C Ablauf 2 Outlet 2 Ecoulement 2 Afvoer 2



Überwurfmutter 2"
Union nut 2"
Ecrou de raccordement 2"
Wartelmoer 2"

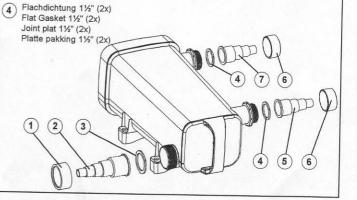
2 Schlauchtülle 2" Hose tail 2" Embout à olive 2" Slangtuitje 2"

Flachdichtung 2"
Flat Gasket 2"
Joint plat 2"
Platte pakking 2"

Schlauchtülle zu 1½"
Closed hose tail 1½"
Embout à olive fermé 1½"
Slangtuitje dicht 1½"

6 Überwurfmutter 1½" (2x)
Union nut 1½" (2x)
Ecrou de raccordement 1½" (2x)
Wartelmoer 1½" (2x)

Schlauchtülle 1½"
Hose tail 1½"
Embout à olive 1½"
Slangtuitje 1½"

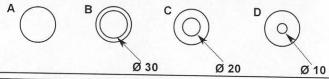


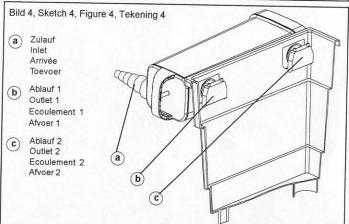
# Tabelle 2, Tabel 2, Tableau 2, Tabel 2

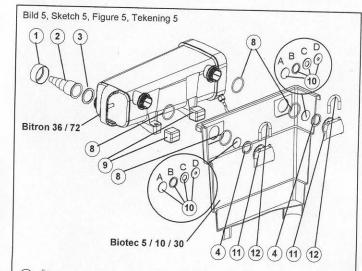
Pumpe Pump Pompe Pomp	Ø Zulauf Inlet Asp. Toevoer	Ø Drosselscheibe, Ø Throttle Disc Ø Plaquette d'inductance d'arrêt, Ø Mettschijf Bitron 36 Bitron 72				
		Ablauf 1 Outlet 1 Ecoul. 1 Afvoer 1	Ablauf 2 Outlet 2 Ecoul. 2 Afvoer 2	Ablauf 1 Outlet 1 Ecoul. 1 Afvoer 1	Ablauf 2 Outlet 2 Ecoul. 2 Afvoer 1	
Aquamax 10000	11/2"	С		D		
Aquamax 15000	11/2	В	4	C		
Promax 20000	2"		С	C		
Promax 30000	2"	-	С	_		

Bild 3, Sketch 3, Figure 3, Tekening 3

Ø Drosselscheibe, Ø Throttle Disc Ø Plaquette d'inductance d'arrêt, Ø Mettschijf

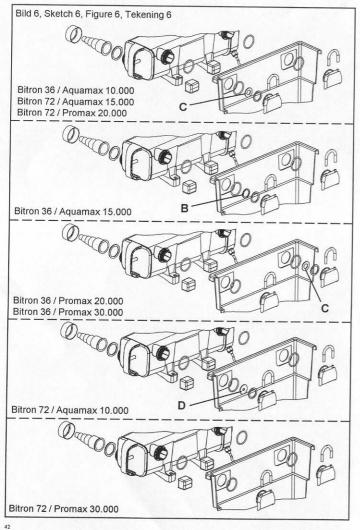


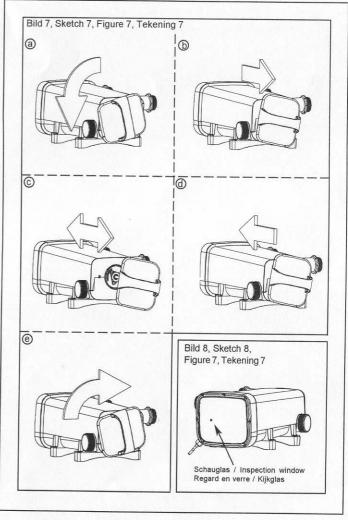


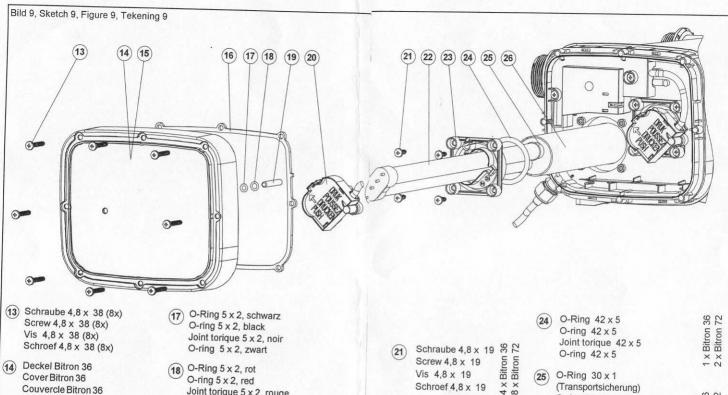


- Überwurfmutter 2"
  Union nut 2"
  Ecrou de raccordement 2"
  Wartelmoer 2"
- Schlauchtülle 2" Hose tail 2" Embout à olive 2" Slangtuitje 2"
- Flachdichtung 2"
  Flat Gasket 2"
  Joint plat 2"
  Platte pakking 2"
- Flachdichtung 1½" (2x)
  Flat Gasket 1½" (2x)
  Joint plat 1½" (2x)
  Platte pakking 1½" (2x)
- (8) O-Ring 48 x 4 (4x) O-ring 48 x 4 (4x) Joint torique 48 x 4 (4x) O-ring 48 x 4 (4x)

- Abstandhalter (2x) (nur Biotec 5/10)
  Spacer (2x) (only Biotec 5/10)
  Détenteur d'écart (2x) (uniquement Biotec 5/10)
  Afstandhouder (2x) (alleen Biotec 5/10)
- Drosselscheibe A/B/C/D
  Throttle disc A/B/C/D
  Rondelle détranglement A/B/C/D
  Reduceerschijf A/B/C/D
- Luftschlauch (2x) (nur Biotec 30)
  Air hose (2x) (only Biotec 30)
  Tuyau d'air (2x) (uniquement Biotec 30)
  Luchtslang (2x) (alleen Biotec 30)
- Einlaufdüse (2x) (Biotec 5/10/30)
  Inlet nozzle (2x) (Biotec 5/10/30)
  Arrivée (2x) (Biotec 5/10/30)
  Inlaatsproeier (2x) (Biotec 5/10/30)







- Deckel Bitron 36 Cover Bitron 36 Couvercle Bitron 36 Deksel Bitron 36
- Deckel Bitron 72 CoverBitron 72 Couvercle Bitron 72 Deksel Bitron 72
- Flachdichtung Deckel Flat Gasket Cover Joint plat Couvercle Platte pakking Deksel

- O-Ring 5 x 2, rot O-ring 5 x 2, red Joint torique 5 x 2, rouge O-ring 5 x 2, rood
- Schauglas Inspection window Regard en verre Kiikglas
- Lampenfassung Lamp holder Douille de lampe Lampfitting

21)	Schraube 4,8 x 19 Screw 4,8 x 19 Vis 4,8 x 19 Schroef 4,8 x 19	4 x Bitron 36
Property.		112 N

36 UVC-Lampe, 36W Bitron Bitron UVC-lamp, 36W Lamp UVC, 36W ×× UVC-lamp, 36W - N

Bitron 36 Bitron 72

××

Fassungshalter Base holder porte-monture fittinghouder

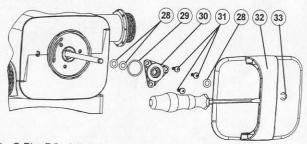
- O-ring 42 x 5
- O-Ring 30 x 1 (Transportsicherung) O-ring 30 x 1 (Transport protection) Joint torique 30 x 1 (Sécurité du transport) O-ring 30 x 1 (Transportbeveiliging)
- Quarzglasrohr Bitron 36/72 Quarzglass tube Bitron 36/72 Tube en verre minéral Bitron 36/72 Kwartsglasbuis Bitron 36/72

x Bitron 7

x Bitron 36 x Bitron 72

36 Bitron 7 ××

# Bild 10, Sketch 10, Figure 10, Tekening 10



- O-Ring 7,5 x 3 (3x) O-ring 7,5 x 3 (3x) Joint torique  $7.5 \times 3 (3x)$ O-ring 7,5 x 3 (3x)
- O-Ring 22,5 x 2 O-ring 22,5 x 2 Joint torique 22,5 x 2 O-ring 22,5 x 2
- Abdichtplatte sealing plate plaque d'étanchéisation afdichtplaat

Schraube 4,8 x 19 (3x) Screw 4,8 x 19 (3x) Vis 4,8 x 19 (3x) Schroef 4,8 x 19 (3x)

- Griff handle poignée greep
- Sicherungsscheibe D6 lock washer D6 plaquette de sécurité D6 bevestigingsschijf D6

## Tabelle 3, Tabel 3, Tableau 3, Tabel 3

Pumpe Pump Pompe Pomp			Teichgröße/Verschmutzung, Pond size/Pollution Taille du bassin/Impuretés, Vijvergrootte/Vervuiling			
		Hmax. mWS	Bitron 36		Bitron 72	
			leicht low level peu licht	stark high level beaucoup sterk	leicht low level peu licht	stark high level beaucoup sterk
Aquamax 10000	150	3,4	450001	220001	650001	320001
Aquamax 15000	250	5	650001	320001	900001	450001
Promax 20000	335	3,4	700001	350001	980001	480001
Promax 30000	500	5	1000001	500001	1300001	650001



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