

BIO-CIRCLE GT und BIO-CIRCLE GT-i

Art.-Nr. G50030 / G60030

G50030-i / G60030-i

Operating Instructions



EN



MAKING GREEN WORK.

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Bio-Circle Surface Technology GmbH, Headquarters Gütersloh



Environment protection and quality

Aware of our responsibility for the environment, we introduced an environmental management system as early as 1996. This system has been certified by Lloyd's Register Quality Assurance in accordance with the globally applicable DIN ISO 14.001 standard. As an ecologically oriented company, we not only attach great importance to the best product performance but also to the best environmental compatibility.



Thank you for purchasing the **BIO-CIRCLE GT/GT-i**.

This operating instruction has been designed to give you all information on the BIO-CIRCLE GT/GT-i.

To ensure perfect functioning of your BIO-CIRCLE GT/GT-i, carefully read this operating instruction before using the machine.

Familiarize yourself with this unit's operation, its particular features, applications and limitations. You will also find useful tips on safety and maintenance.

Bio-Circle Surface Technology GmbH

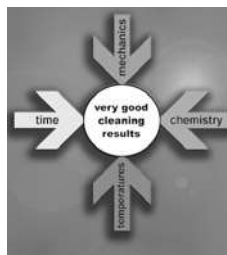
Should you need more information please call our

Service Hotline

ⒹⒺ +49 (0)5241 9443-0

Ⓐ⒰ +43 (0)7241 59 400

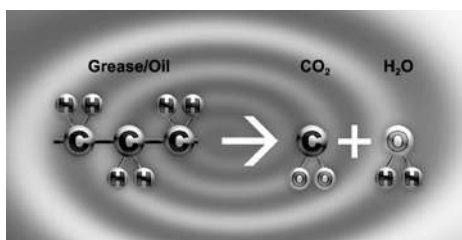
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Table of Contents

1. General Points	23
2. Fundamental Safety Instructions	23
3. Product Description	
3.1 Assembly and Mode of Operation	24
3.2 Intended Use	29
4. Technical Data	29
5. Start Up	30
6. Operating Instructions	31
7. Maintenance	32
8. Notes for Waste Disposal	34
9. Trouble Shooting Guide	34
10. Wiring diagram	36
11. Regulations	38
12. Terms of Guarantee	38



1. General Points

These operating instructions are applicable to the BIO-CIRCLE GT/GT-i Compact and BIO-CIRCLE GT/GT-i Maxi Parts Washer. It specifies the information necessary for its correct handling and usage and covers the initial set up, operation, maintenance, shut down and waste disposal. The warnings and advices mentioned in these instruction are to be observed and adhered to. If the product is used in accordance with the regulations corresponding to these operating instruction we will be liable in line with our guarantee conditions. Keep these operating instructions in a safe place. They are designed to help with practical usage of the Parts Washer and should be at the users disposal at the location where the Parts Washer is being used.

No modifications or alterations must made to the product without authorisation from the manufacturer. The manufacturer will not be liable for any modifications made without its authorisation and the guarantee will expire and cease to be valid.

Key to Safety Instructions


Danger symbol


You will find this symbol next to all safety instructions relevant to damage prevention (personal injury, material damage). Take note of this instruction and behave cautiously!

Prohibition symbol



You will find this symbol next to all prohibition instructions where failure to comply with these could result in direct personal injury and material damage. It is mandatory that prohibition symbols are complied with!

2. Fundamental Safety Instructions

 Every person who works with the product must be familiar with the content of the operating instructions. These operating instructions are a part of the unit and must be available to the operating staff at all times. The operating staff are to be shown the operating instructions and the danger symbols and prohibition symbols in particular must be pointed out to them.

 This unit is equipped with a 3-conductor power cord and 3-prong grounding cap. It must be connected to a correspondingly grounded power outlet protected by a class A Ground Fault Circuit Interrupter (GFCI) to prevent electric shock hazard. Please have this checked and tested by a specialist in electrics!

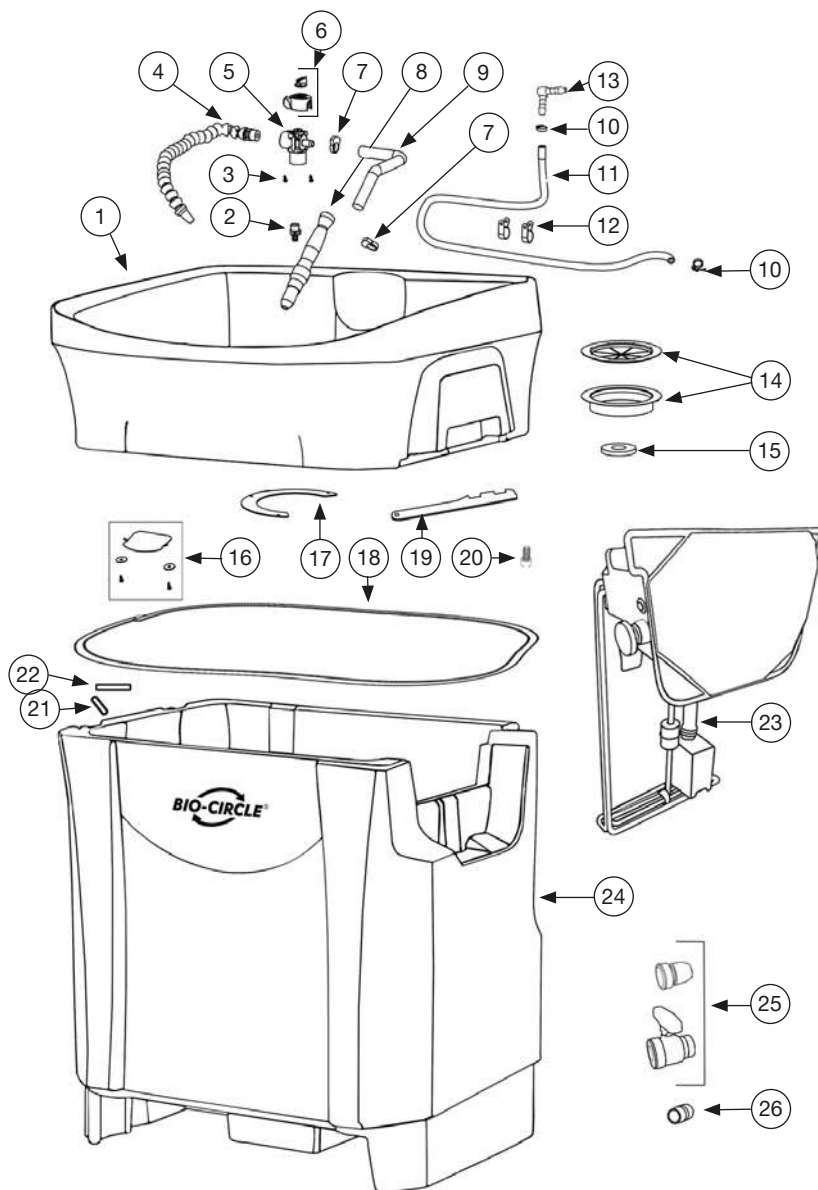
Before connecting this unit, check that the voltage shown on the rating plate is the same as of the power source. Operating this unit on a voltage other than specified on its rating plate may result in personal injury to the user and damage to the unit.

  **The unit must only be operated by those people authorised to do so.**

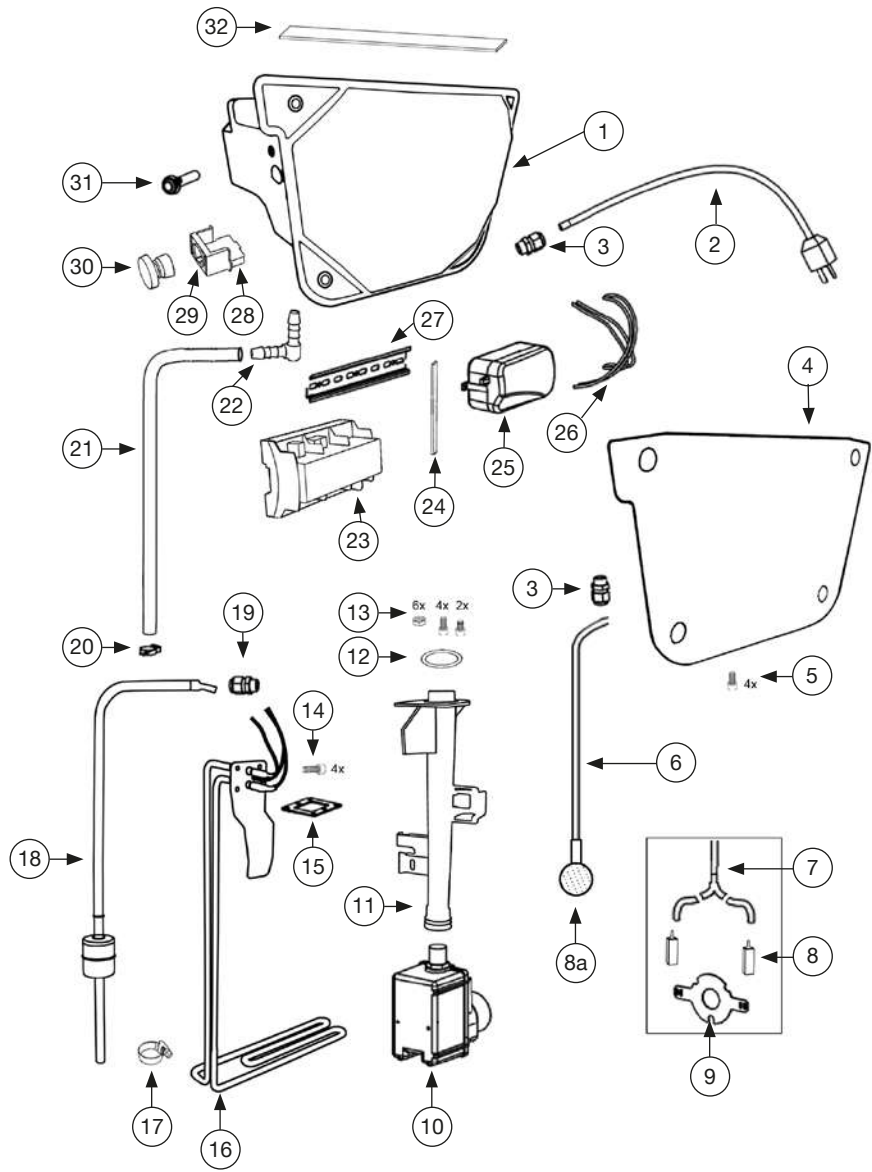
Your BIO-CIRCLE machine is equipped with **magnet** inserted underneath the course filter in the sink, always handle it with care, as it will shatter if dropped and may cause injuries. Keep magnet away from electronic devices and magnetic media such as floppy disc, credit cards and computer monitors. **Keep magnet away from pacemakers.**

3. Product Description

3.1 Assembly and Mode of Operation



Machine	GT / GT-i Maxi Order No.	GT / GT-i Compact Order No.
1 Sink	G60630	G48202
24 Tank	G60206	G48206
2 Fitting 1/2" external thread	G484539	
3 Pan head screw	G48211	
4 Flex faucet	G48D373	
5 3-way valve	G484506	
6 3-way valve cap and knob, grey	G484531-01	
7 Hose clamp size F	G21726	
8 Flowthrough brush	G20726	
9 Flowthrough brush hose, length 80 cm	G23026	
10 Hose clamp size H	G21826	
11 Hose 12 x 4, length 180 cm	G28126	
12 Loop strap inside diameter 22 mm	G484433	
13 1/2" hose connector, angled	G484540	
14 Drain filter insert kit, plastic	G48D743	
15 Magnet	G48D309	
16 Damper	G48D310	
Washer	G48204	
Pan head screw, 4,8 x 16 mm	G48205	
17 Filter bag bracket	G552040	
18 Sink gasket	G60201	
19 Sink rod	G484585	
20 Allen screw, M6x8	G48210	
21 Connecting bolt short	G48D312	
22 Connecting bolt long	G48D311	
23 Replacement control box BIO-CIRCLE GT (Version GT-i)	G52030(-i)	
25 Drain cock (clamp screw)	G48214	
26 Threaded nipple 1"	G552024	





Control box GT/GT-i	Order No.
1 Housing	G48001
2 Power cord	G24326
3 Cable gland M16	G484529
Lock nut M16	G484530
4 Lid	G48002
5 Allen screw M5x10	G48100
6 Nitril hose inside diameter 4 mm	G48D478
8a 3D-Air-Booster	G484340-01
Version wood:	
7 Y-hose connection	G29626-03
8 Wooden air diffuser	G24026-01
9 Air diffuser bracket	G484525
10 Pump 40 W, 230 W	G20126
11 Pump bracket	G48003
12 O-Ring for pump bracket	G48115
13 Allen screw M6x16	G48113
Nut M6	G48114
14 Allen screw M5x6	G48104
15 Gasket for heater	G48103
16 Heater 230 V, 650 W	G48102
17 Sensor clamp	G48119
18 Multifunctional sensor GT (<i>Version GT-i</i>)	G48118 (-02)
19 Cable gland M20	G48106
Lock nut M20	G48107
20 Hose clamp size H	G21826
21 Nitril hose inside diameter 12 mm	G28126
22 Fitting 1/2" anged	G484540
23 BIO-CIRCLE GT controls (<i>Version GT-i</i>)	G48117 (-03)
24 Cellular rubber strip	G54926-01
25 Air pump, 5 W, 230 V	G23926-06
26 O-Ring for fixing air pump	G484523
27 Top-hat rail	G484510
28 Module connector	G48D347-03
29 Module bracket	G48D347-02
30 Push button for pump switch	G48D346
31 Red LED	G53826
32 Gasket between control unit and tank	G48120

The pump is electrically operated and pumps the cleaning liquid through the connecting tube to the 3-way ball valve. Depending on its position the cleaner can either be propelled to the sink via the tube with the brush or via the versatile jointed hose. The work piece is located in the interior of the table and can be cleaned there. The used cleaning liquid runs through the sinks centered filter back into the container. Microorganisms then break down the oil and fat impurities.

Version BIO-CIRCLE GT-i: the control boxes are equipped with a controller with integrated transmitter module. This enables Bio-Circle Surface Technology to access the technical data on the status of the unit. The data is sent via an integrated SIM card. This process is free of charge for the plant operator. No personal data subject to data protection regulations are collected.

Comparison between conventional Parts Cleaner with Cold Cleaner and BIO-CIRCLE Liquid

	Cold Cleaner	BIO-CIRCLE BIO-CIRCLE L
What is the effect of increased contamination?	saturation of the cleaning liquid – cleaning effect falls off	good stable results the whole time ☺
What contaminations can be removed ? Organique, apolar (grease, oil) Inorganique, polar (salts) Inorganique, apolar (iron fillings, dust)	Very good results Poor results Poor results	Very good results Very good results Good results ☺
What materials can be cleaned? Stainless steel Steel Aluminium Non-ferrous heavy metals	Very good results Very good results Very good results Very good results	Very good results Very good results Very good results Very good results ☺
Safety and health provisions for workers		

Health damage <small>(Source: Reinigen und Entfetten, BG Maschinenbau- und Metall-BG 1997)</small>	Cold Cleaner	BIO-CIRCLE BIO-CIRCLE L
Damage to the nervous system	Benzenes (hexane isomers, pentane, heptane, octane)	none ☺
Damage to the skin	Yes	none ☺
Damage to the liver	Methanol, ethanol	none ☺
Damage to the kidneys	Kerosene, Petrol/gasoline, Hexane, heptane, alcohols	none ☺
Mutagens and teratogenes	Organic solvents	none ☺

* The used micro-organisms are a „mixed-culture“ of risk 1 organisms (evaluation in accordance with 2000/54/EC, risk 1 = no risk for human beings and vertebrates, current state of art).

3.2 Intended Use

The BIO-CIRCLE GT / GT-i parts cleaner are used to clean work pieces that are soiled with oil and grease, using only the biological BIO-CIRCLE Liquid cleaning fluid.

The BIO-CIRCLE Liquid range – the right solution for every application!



Three powerful BIO-CIRCLE Liquids guarantee optimal results in parts cleaning.

- ▶ **BIO-CIRCLE L**
- ▶ **BIO-CIRCLE L Evo**
- ▶ **BIO-CIRCLE L Ultra**



4. Technical Data

	BIO-CIRCLE GT / GT-i Compact	BIO-CIRCLE GT / GT-i Maxi
Order No.	G50030(-i)	G60030(-i)
Dimensions (H x W x T)	approx. 1060 x 830 x 600 mm	approx. 1100 x 970 x 690 mm
Working height	approx. 970/800 mm	approx. 970/ 820 mm
Usable workspace	approx. 700 x 480 mm	approx. 840 x 540 mm
Weight when empty	approx. 45 kg	approx. 60 kg
Load capacity	approx. 100 kg	approx. 250 kg
Minimum tank capacity	60 L	80 L
Maximum tank capacity	100 L	120 L
Level switch	Minimum fill level (approx. 60 L)	Minimum fill level (approx. 80 L)
Tank material	PE LD	
Power input	approx. 700 W	
Electrical connection	230 V, 50 Hz	
Heating	650 W, stainless steel	
Pump	40 W, 380 L/h	
Temperature	approx. 41 °C – factory set	
Operating temperature	15 to 48 °C	

5. Start Up

After removing the packaging, check the casing and control for any possible transport damage. Should transport damage be detected, do not connect the machine to the mains. Instead report the damage to the carrier and to Bio-Circle Surface Technology GmbH. The original packaging must be retained. Place the unit in a dry and stable place of your choice. The ground must be even. If necessary level the ground out with suitable material. Ensure that the drain valve is closed. Use only the genuine BIO-CIRCLEL Cleaning Liquid. To fill to the optimum volume, 100 L respectively 120 L should be required.



Do not overfill!



Other cleaning liquids, such as cleaner solvents, disinfectants and alkaline cleaner, for example must not be used!

On/Off

Power switch Pump



Connect the unit to the electricity supply.

Please ensure that the current entry provided by the customer is furnished with an ELCB (Earth Leakage Circuit Breaker – FI switch).



Note: Do not connect to the power supply with no liquid inside the machine.

The heater starts to warm up the cleaning liquid to operating temperature.


Allow heater to warm BIO-CIRCLEL solution to working temperature for optimal cleaning efficiency. When the solution has reached its proper working temperature of approx. 41°C (This will take approx. 4 hours depending on the initial temperature), periodically, the heater will turn itself ON.



Never turn off the BIO-CIRCLE unit unless for servicing or longer periods of non-use (more than two weeks, see chapter 6. Operation instructions). Once the correct temperature has been reached, the unit is ready for use.


6. Operation Instruction

Turn the cleaning pump ON pressing pump switch. Wet the sink, parts to be cleaned and any brushes prior to cleaning; this will prevent grease and dirt from sticking to the surfaces.

 **The load capacity must not be exceeded:**
100 kg for the BIO-CIRCLE GT/GT-i Compact and 250 kg for the BIO-CIRCLE GT/GT-i Maxi


Depending on the positioning of the 3-way control valve, cleaning can occur via:


- ▶ Washing by means of a versatile jointed hose with nozzle.
- ▶ Cleaning with flow-through cleaning brush.
- ▶ In middle position both outlets are open.

 **After the cleaning process has ended switch off the pump again.**


The unit is equipped with an electronic timer which stops the pump automatically after 30 minutes. The timer range can be set between 5 and 60 minutes. This function is not available for version GT-i

 **Note: Any parts susceptible to corrosion should not be left in the sink after cleaning.**


 As with all parts cleaners, **excess grease and oil** should be disposed of prior to washing. **Do not use this unit as a waste dump.** Do not introduce disinfectants, solvents, brake fluid, engine coolant, chlorinated, acidic or alkaline solutions into this system. **Do not add water.**

 The **optimal temperature** for the activity of microorganisms and therefore for the breakdown of oil is **approx. 41 °C**. Therefore leave the **unit always switched on**.

For optimal activity of microorganisms and thus of the breakdown of oil, it is essential that the microorganisms have a supply of oxygen. This is why an **air sprinkler has to be permanently switched on**, which guarantees the required oxygen supply for the microorganisms. If the unit is switched off, or fails because of a defect, the result is that the microorganisms become inactive.

 If the unit is to be idle for more than two weeks, it is recommended to turn the unit off. Make sure the surface of the liquid is not covered with oil. If necessary skim off or absorb any accumulation of oil.

7. Maintenance

 **Warning!** Before beginning to work on fixtures, make sure that there is no electrical current. Pull the plug from the mains! Check that the unit has no current!

For maintenance purposes the table can be opened sideways. The sink will be kept into open position via sink rod, make sure the sink is lifted up to end position.



Maintenance position (table)

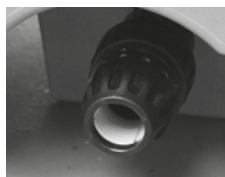
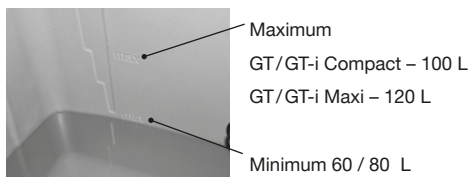
Aeration

The build-in aeration feature is vital to the performance of the bioremediation process. Therefore check weekly the air input, air bubbles should be visible at the surface of the liquid. If necessary clean or change the air sprinkler.

Fill Level

Monitor the fill level regularly by means of the markings on the wall of the container, because of liquid losses due to evaporation and manual take out. If the fill-up height falls below the minimum level, heating and pump will be switched off automatically for safety reasons, this will be indicated by flashing red LED. Ensure that float switch floats freely in the liquid.

Liquid Level Lines

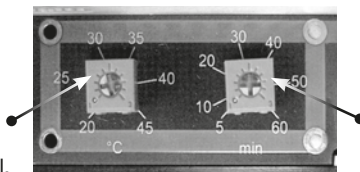


Setting the temperature and the pump running time

For the setting disconnect the device from the power supply and set the desired value

Version E-GT 1.1

The temperature can be adjusted between 20 and 45 °C by turning the setting wheel.



The running time of the liquid pump can be adjusted between 5 and 60 minutes by turning the setting wheel.

Version BIO-CIRCLE GT-i: In the version with transmitter module, temperature and pump running time can be set via the service interface.

Filters

The parts washer is equipped with three-part filtration system: a coarse filter on the surface of the sink, underneath a mesh filter for finer material or other impurities and then a magnet. It is recommended to clean these filters and the magnet outside the parts washer daily.

Take the filters and the magnet out of the sink, wash out and clean with water. Underneath the sink a filter bag can be installed, check this regularly and empty or change if necessary.

For order/re-order:

G54426	filterbag polypropylene felt 5 µm
G54526	filterbag polypropylene felt 25 µm
G54626	filterbag Nylon 50µm, re-useable
G54726	filterbag Nylon 100 µm, re-useable

Liquid Filter (optional)

The filter housing can be installed on the right back of the unit. It is to be checked weekly and if necessary changed. Release the filter cartridge by turning anti-clockwise. Remove the filter and put in a new one. When screwing on the filter cartridge take care that it fits correctly. Alternatively a reusable Nylon filter can be installed.

For order/re-order:

G22726	BIO-CIRCLE replacement filter 100 µm (6-pack)
G22826	BIO-CIRCLE replacement filter 200 µm (6-pack)
G22026	BIO-CIRCLE Nylon Filter Support
G21926	BIO-CIRCLE Nylon Filter 350 µm

more variations see Bio-Circle catalog

Drain flap

This unit is equipped with a flap located underneath the coarse filter and magnet to slow down evaporation, if too much evaporation occurs, verify that flap moves freely.

Annual maintenance

It is recommended that your BIO-CIRCLE GT/GT-i is inspected and cleaned annually to perform at optimal efficiency. Depending on the application non-digestible matter can accumulate as sludge at the bottom of the tank over time, which can negatively affect the bioremediation activity.

To facilitate the removal of the sludge unplug unit. Connect a hose to drain valve and fully open the valve, wait a few seconds and then close the valve. Repeat these steps 3 times to remove most of the sludge.

Alternatively open the sink and empty the unit from all the cleaning solution using a hand pump until the sludge becomes visible. If cleaning solution is still cleaning well, save it for re-use. Remove the sludge and clean the tank walls and pumps. After that refill the unit, turn it on and allow solution to warm-up to its proper working temperature of approx. 41 °C before cleaning parts.

Visually inspect pumps, tubing and connections. Replace parts that show excessive wear.

8. Notes for Waste Disposal

Cleaning of the parts takes place with an alkalescent, biodegradable, non-toxic cleaning agent in a warm aqueous solution. Used BIO-CIRCLE L can usually be added to your other oil-water waste (such as water soluble cutting fluids) for disposal. Taking into account local regulations, residual liquid can be supplied to a purification plant. The waste code numbers that are valid for the application can be extracted from the European Waste Directive and should be adhered to at all times.

9. Trouble Shooting Guide



Warning! Before beginning to work on fixtures, make sure that there is no electrical current. Pull the plug from the mains! Check that the unit has no current!

Sink fills up

Sink will fill up if the filters or magnet are dirty or clogged. Remove filters and clean all parts. Ensure the drain flap moves freely.

No or weak liquid flow from nozzle or flow-through brush

The rubber hose may be pinched along its length. Ensure the hose is not kinked or squeezed. Also, filter could be dirty or clogged, remove filter cartridge and replace with new one.

Cleaning pump does not work

Please check for blocked pump filter or filter cartridge. Check electrical connections. Check liquid level, pumps stops if level is low.

No more aeration

Aeration has stopped but air pump is still running.

- ▶ Check if the air hose is pinched somewhere along its length.
- ▶ Check if the air diffuser is attached to the end of the air hose next to the pumps and clean or replace it if necessary.
- ▶ Unplug the unit, remove the cover of control module and check whether the air hose is not disconnected from the air pump or pinched somewhere along its length.

No pump noise: check electrical connection, change pump if necessary.

No heating

The failure of the heater could have different causes:

1. The level is below minimum (indicated by red LED flashing): the heater will be stopped automatically.
2. Heater defect: check for electrical flux and connections. The resistance of the heater should be approx. 81 Ohm, if the value varies significant, the heater needs to be changed.

3. The high temperature switch is activated: Check for level and functionality of level switch. For reset unplug device, wait a short while and plug in again.

 **Attention: the high limit switch can only be reset, if the temperature has fallen below approx. 40°C.**

LED is lit permanently – possible causes and countermeasures:

1. There has been an overheating on the heating element; the thermal switch has been triggered.

This may have several reasons:

- The heating element and the sensor are covered in dirt/sludge, so the heat emanating from the heating element cannot be dissipated fast enough. => **Clean the device. / Service**
- The air stones are clogged, and due to the minimal movement in the basin heat will accumulate. In such cases, the box tends to malfunction during the weekend. => **Replace air stones.**
- The Liquid shows considerably increased viscosity, caused e.g. by a high proportion of oil or surfactants. => **Replace all or part of the Liquid.**
- The sensor clamp is in contact with the multifunction sensor, which increases heat transfer onto the sensor. => **Place the sensor clamp at a distance of at least 10 mm from the sensor.**

2. The plug of the multifunction sensor is positioned improperly, or cables have come off the plug.
=> **Push the plug into place; if cables have come off, replace the box.**
3. There is a malfunction in the control unit, due to current peaks that are transmitted through the local power grid. => **In this case it may help if you connect the BIO-CIRCLE to an alternative circuit in the power grid.**
4. There is an internal error in the control box or the multifunction sensor.
=> **Check the control box or control unit and multifunction sensor, replace if necessary.**

 **Attention: A reset is only possible after cooling down!**

Solution does not clean well anymore

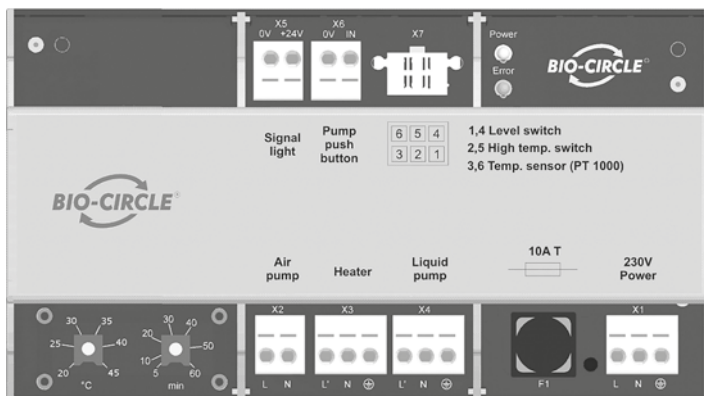
The bioremediation process may have been reduced or prevented by the introduction of inadequate substances or an unfavourable environment. Depending on the situation, replacing all or part of the cleaning solution to re-start the system may be required. For a re-start take approx. 40 l **out of the tank and** replace by new BIO-CIRCLE Liquid. After approx. 5 days the liquid gains its original ability to break down oil and fat impurities. A restart with part of the used liquid will only be possible, if the microorganisms are not “poisoned” (for example by solvents, disinfectants or alkaline cleaner). In case of doubt better change the complete liquid.

Solution Odour

It is normal that the solution may emit a apple odour at start-up. As oil and grease are introduced into the cleaning solution, this odour will diminish leaving only a faint, pleasant scent.

10. Wiring diagram

10.1 Version E-GT 1.1



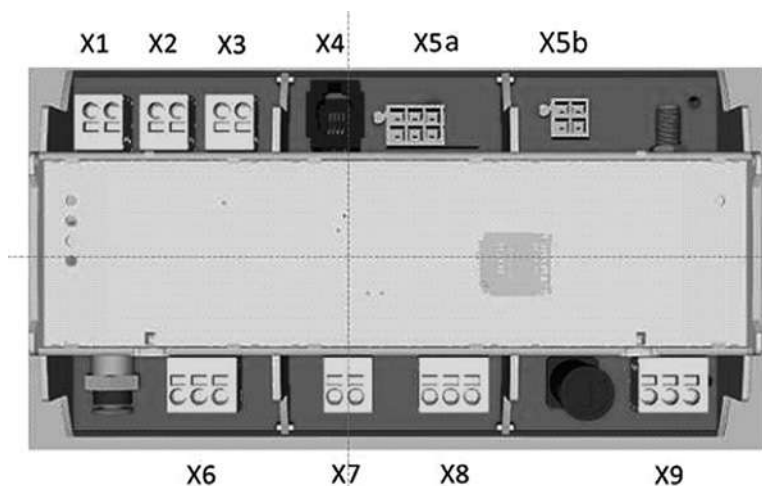
- Connections**
- X1 Power supply
 - X2 Air pump
 - X3 Heater
 - X4 Liquid pump
 - X5 Signal light
 - X6 Pump push button
 - X7 Sensor plug

Error

Red LED flashing: Level low, top up device

Red LED permanently on: Unplug device, check for possible overheating, check level switch and level, if necessary let cool down and plug in again for reset. If reset is not possible, please see error description on page 35 .

10.2 Electronic control version BIO-CIRCLE GT-i



Connections	X1	Signal light
	X2	Pump switch
	X3	not assigned
	X4	Service interface
	X5a	sensor plug (level switch, temperature sensor 1 and 2)
	X5b	Sensor plug (level sensor, temperature switch)
	X6	Heater
	X7	Air pump
	X8	Liquid pump
	X9	Power cable

Error

Red LED flashing: Low level, refill device.

Red LED permanently on: Disconnect device from power supply, check for overheating, check float switch and level, allow to cool down if necessary and reconnect to power supply for reset. If a reset is not possible, please see error description on page 35 .

11. Regulations

The units are subject to strict safety regulations. Therefore, faulty parts must be replaced by original spare parts only. A spare part list is available on request.

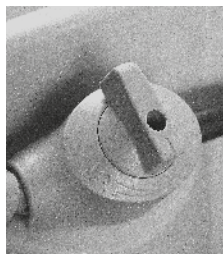
BIO-CIRCLE GT/GT-i Compact and BIO-CIRCLE GT/GT-i Maxi comply with the CE criteria, see page 93 of this manual.



12. Terms of Guarantee

All Bio-Circle Surface Technology GmbH articles are inspected and tested before shipment and are warranted to be free from any defect in material and faulty workmanship. Bio-Circle Surface Technology GmbH gives guarantee of 24 months on the machines, except wear parts.

This warranty does not apply when normal maintenance is required, repairs or replacements have been made by anyone other than Bio-Circle Surface Technology GmbH authorized personnel, and does not cover any damage caused by accidents, modifications, use of improper accessories, and abuse or misuse, this also includes the use of detergents, which have not been released from Bio-Circle Surface Technology GmbH. If an examination shows that the malfunction was caused by defective material or faulty workmanship, Bio-Circle Surface Technology GmbH will repair (or at our option, replace).



EG-Konformitätserklärung

im Sinne der Maschinenrichtlinie 2006/42/EG

CE Declaration of Conformity

Letter A Directive 2006/42/EG

Déclaration de conformité CE

À la norme 2006/42/EG

Dichiarazione di conformità CE

ai sensi della direttiva macchine 2006/42/EG

Declaración „CE“ de conformidad

según la directiva comunitaria 98/37/EG, apéndice II A

Wir / We / Nous / No / Nosotros:

Bio-Circle Surface Technology GmbH

Berensweg 200

D-33334 Gütersloh

Deutschland / Germany / Allemagne / Germania / Alemania

erklären hiermit, dass die Produkte / declare that the products / déclarons que les produits / dichiariamo che / explicamos con esto, que los productos

Pinselfreinigungstische / Parts washer / lavapezzi / fontaines / lavadoras de piezas:

BIO-CIRCLE GT / GT-i Compact

BIO-CIRCLE GT / GT-i Maxi

folgenden einschlägigen Bestimmungen entsprechen / Confirm the following directives / Sont conformes aux dispositions des directives des produits / sono conformi con le relative disposizioni della direttiva CE / cumplen a las disposiciones pertinentes siguientes

Richtlinie / directive:

2006/42/EG (EEC)

Direttiva / Directiva:

EG – Maschinenrichtlinie / EEC – Machinery Directive /

Directive relative aux machines / Direttiva relativa alle macchine / Directiva CE de máquinas

2014/35/EU

Niederspannungsrichtlinie / Directive Low Voltage / directive "basse tension" /

direttiva "bassa tensione" / Directiva de baja tensión

2014/30/EU

Elektromagnetische Verträglichkeitsrichtlinie / Directive on the Electromagnetic

Compatibility / Compatibilità Electromagnética / Directiva de compatibilidad

electromagnética

und harmonisierte Normen / and harmonised reference standards / et les normes harmonisées / e norme armonizzate / y las normas armonizadas

EN 12200 -1,-2

EN 349

EN 60 204-1

Angewendete nationale Normen, Richtlinien und Spezifikationen insbesondere:

Employed national standards, directives and specifications, in particular:

Appliquaient des normes nationales, les directives et les spécifications, en particulier:

Norme nazionali, direttive e specifiche, in particolare:

Usadas normas nacionales, directivas y especificaciones especialmente:

DIN 45 635

Die Erklärung verliert ihre Gültigkeit bei nicht bestimmungsgemäßer Verwendung und bei Änderungen an dem Produkt, die nicht mit dem Hersteller abgesprochen werden.

The declaration loses its validity if the device is not used as intended or if changes in the product are made, which are not discussed with the manufacturer.

La déclaration perd sa validité lorsqu'elle n'est pas utilisée comme prévu et en cas de modification qui ne sont pas convenues avec le fabricant.

La dichiarazione perde la sua validità quando non è utilizzata come previsto e se le modifiche non sono d'accordo con il costruttore.

La declaración pierde su validez al no usarla conforme a su deseo y al cambiar el producto sin hablar con el fabricante.

Für die Zusammenstellung der technischen Unterlagen ist bevollmächtigt:

Institution authorized for compiling the technical documents:

La présentation des résultats des documents techniques est habilité par:

Istituzione autorizzata a mettere insieme i documenti tecnici:

Autorizado para la compilación de los documentos técnicos:

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Gütersloh, 02.10.2020


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