

GEBRUIKSAANWIJZING I-TRONIC

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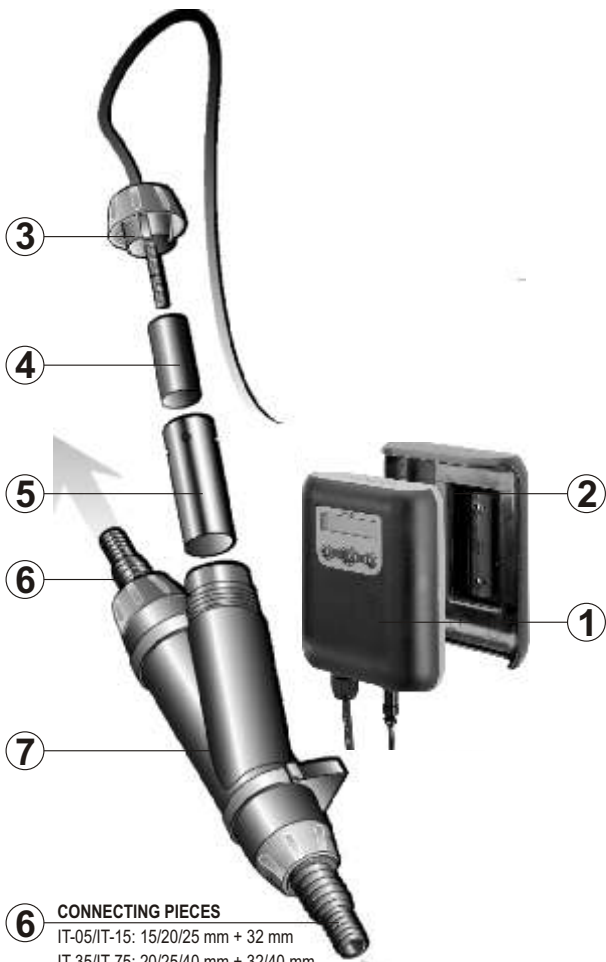
MODE D'EMPLOI DU I-TRONIC

USER INSTRUCTIONS I-TRONIC



**velda**

*The experts in pond biology*



### ● **Quelle est la fréquence de remplacement de l'anode?**

En général, une fois par saison. En cas d'utilisation en continu, de formation importante d'algues et, surtout, d'utilisation d'un I-Tronic trop petit pour la contenance du bassin, l'anode doit être remplacée deux à trois fois par saison.

### ● **Comment dois-je remplacer l'anode ?**

Le boîtier peut être dévissé une fois la pompe débranchée. Il est alors possible de détacher la cathode en acier inoxydable et de dévisser l'anode.

### ● **Puis-je utiliser l'I-Tronic si j'ai des escargots et/ou des moules dans mon bassin ?**

Non, les minéraux de cuivre sont nuisibles pour les mollusques, même en faibles quantités.

### ● **Puis-je utiliser l'I-Tronic en hiver ?**

En hiver l'activité des algues filamenteuses stagne en raison de la baisse de température et de la réduction de la luminosité. Comme ces algues ne prolifèrent pas, il n'y donc pas de raison de faire fonctionner l'I-Tronic. D'ailleurs, nous déconseillons toute utilisation de l'I-Tronic en hiver en raison des changements extrêmes survenant dans la composition de l'eau et de leurs effets. On trouvera des informations détaillées sur la question dans le mode d'emploi ci-dessus.

## **GB** INSTRUCTIONS FOR I-TRONIC

### **WHAT YOU NEED TO KNOW ABOUT ALGAE**

A pond is a closed system in which plants and fish live together. Algae are in fact also plants, namely plants with a very simple structure. 'Algae' is a collective term used to describe a number of extremely diverse and varied groups of vegetable organisms whose common feature is the substance chlorophyll. Fibrous, slime, and floating algae are the types found in ponds. Plants and therefore also algae need sunlight (photosynthesis) as well as nutrients (carbon dioxide, nitrogen, and phosphates) to grow and produce oxygen. On the contrary, fish need oxygen to live. A pond is a relatively small area in which the balance between all these processes can be easily disturbed. Especially in ponds without (oxygen) plants and with relatively many fish, this balance becomes easily disturbed by getting rid of algae because an important oxygen source is gone. Extra aeration may then be necessary to ensure a sufficient oxygen supply for the fish. This applies particularly to fish like the sturgeon, which have a very high oxygen requirement. It is also good to know that algae absorb nutrients from the water. If algae growth is obstructed and there are not enough plants growing in the pond to absorb the nutrients, nutrients may accumulate and can cause harm to the fish. To avoid this, we recommend that you add nutrient-absorbing materials such as zeolite to your pond filter or that you partially refresh the water.

### **WHAT YOU NEED TO KNOW ABOUT THE I-TRONIC**

With this I-Tronic, derived from astronautics technology, Velda brings a revolutionary system to the market that eliminates fibrous and slime algae from your garden pond in a way that is safe for fish and plants. The core of the I-Tronic consists of an anode, made from a mineral copper alloy developed by Velda, and a stainless steel cathode. By means of the microprocessor controlled display unit, pulses are generated, which are led to the core of the I-Tronic. Through these pulses, positively charged copper ions are released, also known as mineralization. In a defined concentration, the ions form a natural barrier against algae. A positive side-effect of using the I-Tronic is that the pond water will be healthy, and it spreads a neutral, fresh scent.

### **GENERAL INFORMATION**

If sodium has been added to the pond water in the form of, for example, kitchen salt or sea salt, the water should be completely refreshed before using the I-Tronic. Avoid using water treatment pro-

ducts and the I-Tronic simultaneously. If it is necessary to use these treatments, the I-Tronic must be turned off during this period. Further, it is recommended to measure the water values before using the I-Tronic. Make sure it is hard enough, with a minimum carbonate hardness (KH) of 6 °GH and a minimum general hardness (GH) of 8 °GH. The pH-value should be at least pH 7. After activating the system, the fish may exhibit a shock reaction lasting a few days. This has no side-effect and after a short time, normal behavior is restored. If fish should go on behaving in a deviant way, we recommend to leave the I-Tronic switched off for a couple of days. It is a generally known fact that copper (Cu) ions with a concentration of 0.2 to 0.3 ppm (0.2 to 0.3 mg per litre water) hinder algae growth. According to the European drinking water standards, even a Cu ion concentration of 2 ppm presents no danger for people and animals, with the exception of invertebrates such as snails and mussels. The I-Tronic has been constructed so, that normal pond water, having a pH value 7 or higher, can not contain too high concentrations of Cu ions. However, because Velda has no supervision over individual use of this apparatus and has no input regarding the environmental circumstances of the pond, Velda bears no responsibility for possible failures or damage.

## INSTRUCTIONS

Velda brings four different models of the I-Tronic to the market:

- IT-05 for ponds up to 5000 litres water
- IT-15 for ponds up to 15,000 litres water
- IT-35 for ponds up to 35,000 litres water
- IT-75 for ponds up to 75,000 litres water

The working of the models is identical. The difference lies in the capacity to bring the copper ions to the active concentration of circa 0.3 ppm for any pond size. The I-Tronic consists of a housing (7) to which a pond pump must be connected. For the IT-05 and IT-15 the required flow capacity is minimum 2,000 to maximum 5,000 l/h (for example High-Stream 4500), and for the IT-35 and IT-75, minimum 3,000 to maximum 8,000 l/h (for example High-Stream 6000 or 8000). The arrow on the housing gives the direction of the water current. The tube connectors (6) can be mounted with the quick release couplings and shortened according to the diameter of the pump tube. Further, it comes with a splash-proof display unit (1) by which the I-Tronic is controlled. Place the display unit with the holder (2) provided in a area protected against rain and sun. The housing contains the anode (4) and the stainless steel cathode (5), which together form the core of the I-Tronic. The water runs along the core and brings the copper ions into the pond water. See also enclosed drawing.

## PROGRAMMING

Install the pump and activate the water stream. Connect the display unit to the mains. The Velda logo will be visible. Using the three push-buttons, the display unit can now be programmed:

- 1 x right arrow                      set clock
- 2 x right arrow                      set night time
- 3 x right arrow                      set power
- 4 x right arrow                      opening screen
- left arrow always brings up opening screen

### Set clock

The option that appears on the screen when the right arrow is pressed once (from the default position) is 'set clock'. This function allows the internal clock to be set. The clock is only used as a reference or calibration point for the day and night setting and consequently does not need to be set accurately. When 'set clock' is selected with the OK button, the screen will show the text: 'set clock' and on the second line: '00:00' (default) or a previously set time. Using the arrow buttons you can first set the hours and then the minutes. Once the time has been set, you return to the main menu.

### Set night time

The option that appears on the screen when the right arrow is pressed twice (from the default position) is 'set night time'. This function can be used to set the night and morning reading. When 'set night time' is selected with the OK button, the screen will show the text 'set night time' and on the second line 'ev. 00:00' (default) or a previously set time. This setting enables you to set the time for the evening (the I-Tronic will stop injecting copper ions at this time). Using the arrow buttons you can first set the hours and then the minutes. After setting the evening time, you come to the morning time 'mo. 00:00' (default) or a previously set time (the I-Tronic will start injecting copper ions at this time). Using the arrow buttons you can first set the hours and then the minutes. Once the morning time has been set you return to the main menu.

### Set power

The option that appears on the screen when the right arrow is pressed four times (from the default position) is 'set power'. This function enables you to regulate the current intensity. When 'set power' is selected with the OK button, the screen will show the text: 'set power' and on the second line: 'OFF'. Using the arrow buttons you can regulate the current intensity and at the same time the amount of copper ions injected (1 - 50%). Once the setting has been confirmed with the OK button you return to the main menu. The LED on the screw cap will light up.

There are various settings, which can be adjusted to every pond situation. From light to heavy algae growth, variable settings from 1 to 50% can be chosen. **We recommend always beginning with 5% setting when starting up the I-Tronic.** If after a few days there is no visible change in the amount or color (turns white) of the algae growth, the setting can be increased by 5%. By repeating this (if necessary), you will get the correct setting for removing the fibrous algae from your pond. Experience teaches at what percentage your pond will remain algae-free also in the long term. To keep the chance of a disturbance of the balance as small as possible, we recommend always beginning with a low setting and increasing this gradually (instead of beginning with a maximum setting and then gradually decreasing). Above 50%, the 'super boost' function will be activated. This setting is maintained for 24 hours and is meant to resolve heavy algae growth in a short time. With use of the 'super boost' setting, the I-Tronic must be reprogrammed after 24 hours. If the pond is algae-free the I-Tronic should be switched off.

## REPORTING OF ERRORS AND SOLUTIONS

If the message 'check electrode current to low' appears on the control display, this can be induced by the following causes:

- **There is no water flowing through the apparatus.**

Solution: Check whether the pump has been connected and/or whether it provides sufficient water pressure. There should be free water transit. The flow capacity of the I-Tronic has to be at least 2,000 l/h for the models IT-05 and IT-15 and 3,000 l/h for the models IT-35 and IT-75.

- **The contact points have become very filthy.**

Solution: Remove deposit, using the little brush that has been supplied along.

- **The contact points have strongly oxidized or have worn.**

Solution: Replace the screw cap.

- **There is a break in the cable.** When switching the apparatus on, the LED on the screw cap will light up. If it does not, it is a question of a break in the cable.

Solution: Replace the screw cap.

- **The diameter of the copper anode has strongly reduced.**

Solution: Replace the copper anode.

If the message 'check electrode current to high' appears on the control display, this can be induced by the following causes:

- **Strong aggregation of copper residues on the contact points.**

Solution: Remove the residue, using the little brush that has been supplied along.

- **Dissolved conducting substances in water, like salt.**

Solution: Refresh part of the water in order to reduce the conductivity of the water.

- **Some blockage in the apparatus.**

Solution: Remove the blockage and clean the apparatus.

## **STORAGE AND CLEANING**

During winter time, at an outdoor temperature below 12 °C (from October up to and including March), you may not use the I-Tronic and you should keep the apparatus in a dry and frost-free place. In proportion to the amount of use, the diameter of the anode will decrease. If the anode needs replaced or becomes dirty, this is indicated in the display window with the message 'check electrode current to low'. With continuous use, the anode may have to be replaced after only a few weeks. With variable use, it can be active from a few months to a year. When performing maintenance, always unplug the pump first. After removing the cathode, the anode can be unscrewed from the housing and it can be replaced. When cleaning, the anode can also be unscrewed from the housing and then the dirt can be removed with a brush. If the message still appears, the anode must be replaced. To be sure of an optimum operation, the screw cap (3) with cast in contact points should be replaced at least once per season. New anodes and screw caps are to be had at the specialized trade.

## **WARNING FOR SIDE EFFECTS**

You should realize that, by removing fibrous algae, you influence the balance of the pond environment and thus the composition of the water. This may occur not only when using algae killers, but also when removing algae by hand. Although problems will seldom occur by any change in the quality of the water, risks, including death of fish, can never be entirely excluded. This also applies to the use of an I-Tronic. If the I-Tronic is applied in the way described in the present instructions for use, problems will almost certainly not occur. However, as the environment and composition of pond water will differ from pond to pond, Velda can not exclude death of fish for 100%, also in case the I-Tronic is used.

## **SAFETY INSTRUCTIONS**

- The I-Tronic is manufactured according to the European CE standard and is TÜV/GS certified.
- The display unit contains a microprocessor with software and control touch, as well as the transformer. The entire unit is sealed to protect it from splashing water. Install the display unit with the holder in a dry place.
- Ensure a reliable grounded connection to the mains and make use of an earth leakage circuit breaker of nominal 30 mA.
- With damage to the display unit, cable, or cable connection, the apparatus cannot be used anymore.
- With activity in or around the pond, unplug all electrical pond apparatuses. This also applies to the I-Tronic.
- The I-Tronic is only meant for use next to a pond. Any other use is forbidden by the manufacturer.

## I-TRONIC AND ACCESSORIES

Article number	Article description	Contents
126650	IT-05	0-5.000l
126655	IT-15	3.000-15.000l
126660	IT-35	10.000-35.000l
126665	IT-75	20.000-75.000l
126668	IT-05	110 V
126670	Control unit	
126685	Anode IT-05	
126690	Anode IT-15	
126695	Anode IT-35	
126700	Anode IT-75	
126705	RVS tube IT-05	
126707	RVS tube IT-15	
126710	RVS tube IT-35/75	
126715	Clip IT-05/15	
126720	Clip IT-35/75	
126725	Cable + screw cap IT-05/15	
126726	Cable + screw cap IT-35/75	

## TECHNICAL DETAILS

Input: 230 V

Output: 9 V

Frequency: 50 Hz

Power: 5 W

## GUARANTEE

Velda guarantees the correct functioning of this apparatus for a period of 24 months after purchase. See the enclosed guarantee card for further details.

## SUMMARY

- Carefully read the instructions.
- Measure the pH, GH, and KH values of the pond water and adjust them if necessary.
- Always place the I-Tronic horizontally and outside the pond, on or under the water level.
- Always start with 5% activation and if necessary, increase weekly by 5%.
- Perform regular maintenance on the I-Tronic, so that it works optimally.
- From October up to and including March you may not use the I-Tronic.

## FAQ

### ● Is the use of the I-Tronic safe for my fish?

We can not give 100% guarantee. However, there is an important point to keep in mind, an oxygen shortage. Especially in ponds without (oxygen) plants and with relatively many fish, the balance becomes easily disturbed by getting rid of algae because an important oxygen source is gone. Extra aeration may then be necessary to ensure a sufficient oxygen supply for the fish. This applies particularly to fish like the sturgeon, which have a very high oxygen requirement.

It is also good to know that if algae growth is obstructed, nutrients may accumulate and can cause harm to the fish. To avoid this, we recommend that you add nutrient-absorbing materials such as zeolite to your pond filter or that you partially refresh the water.

The benefit of the I-Tronic (fibrous) algae remover is that with the electronic control display, it can

be started at a really low level (5%) and if problems develop, it can be turned down again. With a chemical addition to the water, this is not possible.

● **With which activation can I best begin with the I-Tronic?**

Our advice is to always begin with the 5% activation and if necessary, increase the percentage by 5% per week.

● **Can I use a smaller pump than indicated?**

Yes, but the possibility exists that the I-Tronic will become stopped up sooner or that there will be air bubbles and therefore, must be cleaned more often. Also, there will not be sufficient copper ions in the pond water, whereby the result will not be optimal.

● **I have added salt to the water of my koi pond. Can I use the I-Tronic without any risk?**

No, you can not just do that. Sodium (kitchen salt or sea salt) will combine with the copper ions. These bonds can be precipitated on the gills of the fish. Especially cypriniformes, so including koi, are very sensitive to this. If you want to use the I-Tronic, you will first have to refresh the water.

● **Where can I best place the I-Tronic?**

To prevent blockage in the I-Tronic, it is advisable to place the I-Tronic after the filter, so that the water flows first through the filter, and therefore, there cannot be any coarse pieces to cause blockage. However, this applies only to a closed filter. With an open filter, the I-Tronic must be placed before the filter, so that the water flows first through the I-Tronic. The I-Tronic will then become dirty more quickly and the message 'check electrode current to low' will appear on the display. With the enclosed brush, the anode and cathode can then be cleaned. Always place the I-Tronic horizontally and outside the pond, on or under the water level.

● **What happens with the dead algae?**

The algae come loose and float through the water. Especially with large amounts of algae, the filter must be cleaned regularly to prevent blockage. The dead algae that are not removed will ultimately be broken down through nitrates and phosphates and remain in the pond environment. With sufficient plant growth, these will be taken up or eliminated through water refreshing.

● **Why fish swim at the surface of the pond and breathe quickly. What is the problem?**

This indicates an oxygen shortage. In this case you should install an air pump as quickly as possible, refresh the water and clean the filter.

● **The algae only disappear on one side of the pond. What should I do to get the whole pond algae free?**

Ensure there is enough water circulation in the pond, so that the copper ions can spread out over the whole pond.

● **How often should be anode be replaced?**

In general, one time per season. With continuous use, persistent algae growth, and especially when the I-Tronic is too small with respect to the pond volume, it should be replaced two or three times per season.

● **How do I change the anode?**

After the pump is unplugged, you can unscrew the housing. Next, you can loosen the stainless steel cathode and the anode can be unscrewed.

● **Can the I-Tronic be used when I have snails and/or mussels in my pond?**

No, the copper minerals are fatal for molluscs, even in small amounts.

● **May I use the I-Tronic also in winter?**

As fibrous algae do not grow during the winter season, owing to the low temperature of the water and the limited daylight, it is not necessary to use the I-Tronic. In view of the strongly fluctuating composition of the water during the winter season and the possible consequences thereof, we even urgently advise you not to use the I-Tronic during this period. For further information on the subject we refer to the above instructions for use.