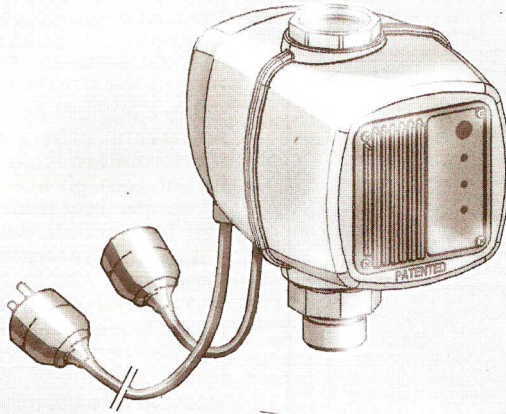


# HYDROTRONIC



*Usò e manutenzione*

*Owner's manual*

*Mode d'emploi et norme d'entretien*

*Bedienungsanweisung*

*Gebruiksaanwijzin*

*Instrucciones para el uso*

*Instruções para o uso*

*Bruksanvisning*

*Käyttöötjeet*

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**LEADER**<sup>®</sup>  
PUMPS

## OPERATING INSTRUCTIONS

### HYDROTRONIC

#### Computerized Control and Protection System for Electric Pumps

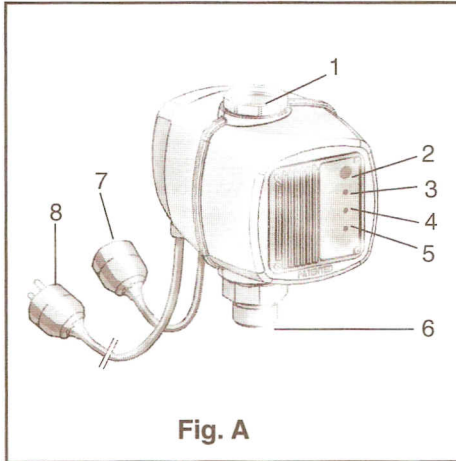


Fig. A

Dear Customer,  
Congratulations on purchasing this high-quality LEADER product.

### 1. PRECAUTIONS

Before putting your Hydrotronic into operation, thoroughly read and follow these instructions. This will make you familiar with the product and its operation.

We also recommend reading the operating instructions of the pump to which the Hydrotronic is to be attached.

### SAFETY RULES

For safety reasons, the Hydrotronic is not meant to be used by people who have not previously read these instructions. This applies in particular to children and young people under 16, who must be kept away from the product when it is in operation.

- When the Hydrotronic is used for swimming pools, ponds and fountains, the related pump must be placed in a stable position on a flat and dry surface and be connected to an automatic

safety breaker having an  $I\Delta n=30\text{mA}$  protection, as provided for in VDE 0100 - parts 702 and 738. Please contact a qualified electrician.

- The electric line connecting the device to the mains and the extension cords must not have a smaller cross-section than the rubber cables marked H07 RNF.
- In Austria, in conformity with the provisions of ÖVE-EM 42, T2 (2000)/1979 § 22 based on § 2022.1, pumps for swimming pools and ponds with fixed mains connections must be fed through a homologated insulating transformer.
- In Switzerland, outdoor equipment suitable for use in more than one place must be connected to an automatic safety breaker.
- Ensure that all electrical connections are located in places that are not reachable by water.
- Before using the product, make sure that the main voltage corresponds to the voltage indicated on the data plate.
- Conformity with local and State electric codes is mandatory. The National Electric Code requires that a ground fault circuit interrupter (GFCI) be used in the branch circuit supplying pumps. Consult a licensed electrician or your power company if in doubt.

### ⚠ WARNING:

- THE HYDROTRONIC DOES NOT WORK IF THE UPPERMOST UTILIZATION POINT IS PLACED HIGHER THAN 15 METRES (49 Ft.).
- THE RELATED PUMP MUST NOT ABSORB MORE THAN 10 AMPERES (115 AMPERES FOR MODEL USA) AND MUST HAVE A MAXIMUM PRESSURE RANGING BETWEEN 3.5 BARS (51 p.s.i.) AND 8 BARS (116 p.s.i.).

## 2. FUNCTION AND TARGET SECTOR

### Operating range

ON: pressure = 1.8 bars (25 p.s.i.)

OFF: max. pump pressure

### Specifications

Power source (Pump max. power absorption):

220±240 V; 50±60 Hz (10A)

115V - 60Hz (15A)

Max. delivery: 120 litres/minute (32 g.p.m.)

Min. pump from suction side: 6 litres/min. (1,5 g.p.m.)

Min. delivery from pressure side: 1-1,5 litres/min.

Max. water temperature: 35°C

Max. operating pressure: 8 bars (116 p.s.i.)

Degree of protection: IP 44

The Hydrotronic converts an electric pump into an automatically operating triggered booster set for domestic use. The device performs three functions:

- **It allows automatic pump operation:** it starts the pump when the tap is turned on and stops it about 15 seconds after the tap has been turned off.
- **It protects the pump from dry operation:** the specially designed safety device automatically stops the pump when water is no longer drawn, thus preventing possible damage. The stopping action is indicated by the lighting of the red LED (5) on the display. This informs the user of the absence of water.
- **It ensures constant delivery and pressure.**

## 3. FUNCTIONAL PARTS (Fig. A)

1. Outlet with 1-inch female threaded connection.
2. RESET button.
3. Line voltage indicator.
4. Pump in operation.
5. Water absence alarm.
6. Inlet with 1-inch male threaded connection with O-ring.
7. Pump connecting cable with socket.
8. Power cord with plug.

## 4. ELECTRICAL CONNECTION

The Hydrotronic device can be provided with or without connecting cables.

1) If the connecting cables are included, just connect the Hydrotronic socket (Fig. A - point 7) to the pump power plug and the Hydrotronic power plug (Fig. A - point 8) to a current out-let.

2) If the connecting cables are not included, the electrical connection has to be made at the terminal block. To expose the terminal block, remove the cover on the back of the device after loosening the two fixing screws. Carry out the wiring following the electrical diagrams shown on the terminal block.

To ensure IP 44 protection against water spurts, use cables with H07RN-F-type sheathing (U.S.A. JACKETS).

## 5. INSTALLATION

The Hydrotronic must be installed on the delivery side of the pump. Screw the inlet 1-inch male connection (6) onto the pump outlet female thread. If the pump does not have a 1-inch female outlet, an adapter will have to be used.

After connecting the Hydrotronic, attach the connecting cable (7) to the pump.

Before connecting the suction line to the pump, it is advisable to fit an anti-dirt filter on the pump suction inlet. The filter is needed to prevent Hydrotronic damage and malfunction.

## 6. PUTTING THE PRODUCT INTO OPERATION

**⚠ WARNING: BEFORE PUTTING THE SYSTEM INTO OPERATION, FILL UP THE PUMP AND THE SUCTION LINE WITH WATER SO AS TO ALLOW PRIMING. WITH WELLS, AND WHENEVER WATER IS ON A LOWER LEVEL THAN THE PUMP, A SUCTION LINE EQUIPPED WITH AN ANTIBACKFLOW FOOT VALVE IS REQUIRED. THIS IS NECESSARY TO ALLOW THE LINE TO BE FILLED WHEN IT IS FIRST USED AND TO PREVENT IT FROM BEING EMPTIED WHEN THE PUMP STOPS AUTOMATICALLY, THUS AVOIDING RESTARTING TROUBLES.**

Start the pump by connecting the power cord (8) to a current out-let.

## 7. LED DISPLAY

The Hydrotronic is equipped with a 3-LED display indicating the operating condition of the pump:

**GREEN LED (3):** It lights when the Hydrotronic is connected to the mains.

**YELLOW LED (4):** It lights when the pump starts and goes off when it stops.

**RED LED (5):** It lights when operation is inhibited due to the absence of water (see also point 8).

**RESET BUTTON:** It is used to restart the pump after restoring a normal water flow. The Hydrotronic is also equipped with an automatic reset system which attempts to restart the pump three times – after 1, 5 and 20 hours respectively. If all attempts are unsuccessful, the Hydrotronic will go into a permanent lockup condition, in which case resetting can only be obtained by disconnecting the power plug (8) and then connecting it again. However, manual reset is always possible before the three automatic attempts are over. In case of failed restart, always check if the suction line is filled with water.

## 8. OPERATING RULES

If the suction phase does not begin within 120 seconds, the pump will stop automatically, then will make two further attempts for another 120 seconds. If the pump still will not start, it will be necessary to troubleshoot the cause of the failure.

Among the possible causes are: the suction line does not draw well or is leaky; the priming opening is not closed properly; the suction height is excessive; air cannot come out because the delivery tube is blocked; the suction line is not equipped with an antiback-flow foot valve or the pump body and the suction line were not completely filled with water when the system was first put into operation.

If the pump keeps starting and stopping and water is not turned on, the delivery tube or the connection with the pump might be leaky. In either case, act as required.

The problem may also be due to a build-up

of dirt inside the Hydrotronic. If that is the case, remove the Hydrotronic from the pump and rinse it thoroughly, for example with a strong water jet from the inlet side (6).

## 9. WARRANTY

The warranty is valid for a period of 12 months from the date of purchase solely for defects in materials or workmanship. The warranty does not cover malfunctions due to misuse or to failure to follow the instructions imparted by the Manufacturer.

The warranty will be regarded as null and void if the plug or power cord have been altered or tampered with (only the modifications mentioned in par. 4 of this manual are allowed) or if the Hydrotronic has been partly or totally disassembled.

## 10. OPERATING PROBLEMS

PROBLEM	CAUSE	CORRECTIVE ACTION
Red LED (3) blinks	No water.	Normal water flow must be restored.
Red LED (3) stays on continuously	No automatic reset attempts left.	Disconnect the power plug and then reconnect it.
Pump keeps starting and stopping	<ol style="list-style-type: none"> <li>1. The system is leaky (unsealed).</li> <li>2. Foreign materials inside the Hydrotronic</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the system and the connection with the pump.</li> <li>2. Disconnect the power plug, remove the Hydrotronic from the pump and rinse it thoroughly by spraying water from the inlet side (6) - i.e. using a garden hose.</li> </ol>
Pump does not work	<ol style="list-style-type: none"> <li>1. The pump may be defected.</li> <li>2. The Hydrotronic may be obstructed by foreign materials or limescale (calcium).</li> </ol>	Disconnect the Hydrotronic from the pump both hydraulically and electrically. Try starting the pump alone after connecting it to the mains. If the pump operates properly, inspect the Hydrotronic from outlet hole (1), checking if the inner impeller rotates freely. If friction is encountered, wash the Hydrotronic by filling it with vinegar or other antiscaling product through outlet (1). If the impeller turns freely, contact the after-sales service.

For further information on operating troubles, carefully read the operating instructions of the related pump.

**We expressly state that, in conformity with the legislation in force, no responsibility is assumed for damage caused by our products through improper repairing techniques or due to the use of non genuine spare parts or of components not approved by LEADER or, at all events, resulting from repairs not carried out at a LEADER service centre or by authorized skilled personnel. The same applies to attachments and accessories.**

## 11. SAFETY AND CONFORMITY MARKS



Automatically operated pumps are produced in compliance with the safety regulations in force and are subjected to verification by the competent agencies (TÜV and CSA/NRTL).