Diag box

Instructions for installation and use
English

More documents on:
www.zodiac-poolcare.com
WARNINGS ASSOCIATED WITH ELECTRICAL APPLIANCES

- The electrical supply to the appliance must be protected by a dedicated 30 mA residual current protection device, complying with the standards and regulations in force in the country where it is installed.
- Before carrying out any operations, check that:
  - The voltage indicated on the appliance’s information plate corresponds to the mains voltage,
  - The power grid is adapted to the power requirements of the appliance, and is grounded.
  - The plug (where applicable) is suitable for the socket.
  - In the event of abnormal operation or odours being released from the appliance, turn it off immediately, unplug it from its power supply and contact a professional.
  - Before doing any work on the appliance, ensure that it, and any other equipment connected to the appliance, is switched off and disconnected from the power supply and that the heating priority (where applicable) is deactivated.
  - Do not disconnect and reconnect the appliance to the power supply when in operation.
  - Do not pull on the power cord to disconnect it from the power supply.
  - Do not handle electrical parts with wet hands.
  - Clean the terminal block or power supply socket before connection.
  - For any component or sub-assembly containing a battery: do not recharge or dismantle the battery or throw it into a fire. Do not expose it to high temperatures or direct sunlight.
  - In stormy weather, unplug the appliance to prevent it from suffering lightning damage.
  - Do not immerse the appliance in water (with the exception of cleaners) or mud.

SPECIFIC FEATURES APPLICABLE TO "Pool cleaners"

- The cleaner must operate in pool water with a temperature of between 15°C and 35°C.
- To avoid possible injury and damage to the cleaner, do not operate the cleaner out of the water.
- In order to prevent possible injury, bathing is prohibited when your cleaner is in the pool.
- Do not use the cleaner during shock chlorination.
- Do not leave the cleaner unattended for an extended period.

WARNING ON THE USE OF A CLEANER IN A POOL WITH A VINYL SURFACE:

- Before installing your new cleaner, carefully inspect the lining of your pool. If the liner has eroded in some areas, or if you notice gravel, folds, roots or corrosion caused by metal on the inner surface of the liner, or if you notice that the support (bottom and walls) is damaged, do not install the cleaner before performing the necessary repairs or before replacing the liner using a qualified professional. The manufacturer cannot be held liable in any way for damage caused to the liner.
- The surface of certain vinyl patterned surfaces can wear rapidly and the patterns disappear on contact from objects such as cleaning brushes, toys, inflatable buoys, chlorine distributors and automatic pool cleaners. The decoration on some vinyl surfaces can be scratched or worn by basic friction such as through the use of a pool brush. The colours of certain patterns can also be erased during use or when in contact with objects in the pool. The erased patterns, wear or scratching of vinyl surfaces are not the liability of the manufacturer and are not covered by the limited warranty.

Recycling

This symbol means that your appliance should not be disposed of with other rubbish. It will be selectively collected for the purpose of reuse, recycling or transformation. If it contains any substances that may be harmful to the environment, these will be eliminated or neutralised.

Contact your retailer for recycling information.
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1. **Package content**

Check that your appliance has not been damaged during transport (shocks, broken parts, etc.). If you find any problems do not hesitate to contact Zodiac® before using the product.

<table>
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<th>Diag Box (x1)</th>
<th>Adaptor organiser (x1)</th>
<th>Adaptors (x6)</th>
</tr>
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</table>

2. **Diag Box operating principle (Quick Test and Full Test)**

The Diag Box is a tool which has been specially designed to help professionals detect faults on Zodiac® electric robots.

Depending on your needs (and the appliance to be inspected), you may carry out 2 types of test:

- **Quick Test**: This is a "simplified" test using the Diag Box tool only (may be carried out in the field, for example). This mode lets you launch automatic verification cycles and view a certain number of steps and any error codes directly on the Diag Box;

  - During the test, do not touch the robot or press the keys on the robot control unit.

- **Full Test**: This "enhanced" mode lets you view or export more detailed information (number of hours' operation, error history, etc.). To use this mode, simply connect the Diag Box to a computer (via the USB cable included) and use an additional free software package (Full Test Software, which may be downloaded from the Zodiac website: §.8).

3. **Electrical connection**

- To connect the adaptor, follow the configuration below: End with coloured ring on the Diag Box side.
- Connect the USB cable from the Diag Box to the computer to use Full Test mode only, otherwise the Quick Test functions will no longer be accessible.

4. **3.1 Specific connection for Lazernaut, Cybernaut™ NT (>2010)**

   - Image 1. Open the robot’s control box
   - Image 2. Connect the yellow adaptor between the Diag Box and the robot’s control box
<table>
<thead>
<tr>
<th>Type of robot</th>
<th>Elements to be tested</th>
<th>Type of cable to be connected</th>
</tr>
</thead>
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<tr>
<td>TornaX</td>
<td>Robot</td>
<td>Robot floating cable</td>
</tr>
<tr>
<td></td>
<td>Control box</td>
<td>GREEN adaptor</td>
</tr>
<tr>
<td></td>
<td>Robot</td>
<td>GREY adaptor</td>
</tr>
<tr>
<td>Cyclonx™</td>
<td>Control box</td>
<td>BLUE adaptor</td>
</tr>
<tr>
<td></td>
<td>Motor unit</td>
<td>BROWN adaptor</td>
</tr>
<tr>
<td>Vortex™</td>
<td>Robot</td>
<td>Robot floating cable</td>
</tr>
<tr>
<td></td>
<td>Control box</td>
<td>GREEN adaptor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vortex™ 1</td>
<td>Robot</td>
<td>RED adaptor</td>
</tr>
<tr>
<td>Lazernaut, Cybernaut™ NT (&gt;2010)</td>
<td>Robot (via robot control box: $3.1)</td>
<td>YELLOW adaptor</td>
</tr>
</tbody>
</table>

### 4. Vortex™ 1 Test (Robot)

1. **Connect the Diag Box**
   - Connect the robot to the Diag Box using the red adaptor.

2. **Press “Cleaner” then “Start/Stop”**
   - TEST
     - SC
       - Check in the connector on the cable side that the wires are correctly connected. Otherwise change the robot cable.
       - Press “Cleaner” then “Start/Stop”

3. **OK**
   - TEST
     - SC
       - Change the motor unit

4. **Fail**
   - Disconnect/reconnect the Diag Box
     - Press “Cleaner” then “Start/Stop”

5. **OK**
   - TEST
     - SC
       - Change the Diag Box

6. **Fail**
   - Test effectué
     - Disconnect/reconnect the Diag Box
     - Press “Cleaner” then “Start/Stop”

7. **OK**
   - TEST
     - SC
       - Change the motor unit

8. **OK**
   - TEST
     - SC
       - Change the Diag Box

9. **OK**
   - TEST
     - SC
       - Change the motor unit

10. **End**
    - Change the motor unit
    - End
5. TornaX, CyclonX™ and Vortex™ (except Vortex™1) Complete Test

5.1 Testing the robot

- Connect the Diag Box
- Connect the robot to the Diag Box using the grey adaptor for the CyclonX™, and floating cable for TornaX/ Vortex™

Press "Cleaner" then "Start/Stop"

End

**FAIL - At**

- Disconnect/reconnect the robot/Diag Box assembly
- Press "Cleaner" then "Start/Stop"

**FAIL - ArAc**

- Change the Diag Box

**FAIL - Com**

- Disconnect/reconnect the robot/Diag Box assembly
- Press "Cleaner" then "Start/Stop"

**FAIL - Com**

- TornaX
- Change the complete chassis
- Disconnect the robot and connect the motor unit to the Diag Box using the brown connector

**FAIL - Com**

- CyclonX™, Vortex™
- Change the complete chassis
- Disconnect the robot and connect the motor unit to the Diag Box using the brown connector

**FAIL - Ar**

- Check in the connector on the cable side that the wires are correctly connected
- Press "Cleaner" then "Start/Stop"

**FAIL - PumP**

- Pump motor start
- Pump motor stop

**FAIL - Com**

- Change the motor unit

**FAIL - Com**

- Change the complete chassis

**FAIL - At**

- Refer to the fault description at the top of the flow chart

**FAIL - Com**

- Problem on the transmission and propeller
- Change the transmission system and/or clean the debris from the propeller

**FAIL - Com**

- Change the motor unit

**FAIL - Com**

- Check the transmission system and the propeller
- Check OK

**FAIL - Com**

- Change the complete chassis
- Check the motor unit
- Check the transmission system and the propeller
- Check OK

**FAIL - Com**

- Change the complete chassis
- Check the motor unit

**FAIL - ArAc**

- Rotation right test
- Rotation left test

**FAIL - Com**

- Unit OK
- Check the motor unit

**FAIL - Com**

- TornaX
- Change the complete chassis

**FAIL - At**

- Refer to the fault description at the top of the flow chart
5.2 Testing the control box

- Connect the control box
- Connect the Diag Box
- Connect the control box to the Diag Box with the blue (CyclonX) or green (TornaX, Vortex) adaptor

Press “Ebox” then “Start/Stop”

**TEST**

**FAIL - Al**

Disconnect/reconnect the Diag Box

Press “Ebox” then “Start/Stop”

**TEST**

**FAIL - Al**

Change the Diag Box

**FAIL - Com**

Disconnect/reconnect the control box/Diag Box assembly

Press “Ebox” then “Start/Stop”

**FAIL - Com**

Change the control box

End
5.3 Motor unit (CyclonX™, Vortex™)

Connect the Diag Box
Connect the motor unit to the Diag Box with the brown adaptor

Press "Cleaner" then "Start/Stop"

TEST
OK
TEST

FAIL - Re
Disconnect/reconnect the Diag Box
Press "Cleaner" then "Start/Stop"
TEST
OK
FAIL - Re
Change the Diag Box

FAIL - Corn
Disconnect/reconnect the motor unit/Diag Box assembly

FAIL - Corn
Change the motor unit

FAIL - At

TEST
OK

Change the motor unit

Traction motor forward

Traction motor reverse

Rotation right test

Rotation left test

Pump motor start

Pump motor stop

End

Refer to the fault description at the top of the flow chart

Refer to the fault description at the top of the flow chart

Refer to the fault description at the top of the flow chart

Refer to the fault description at the top of the flow chart

Vortex family only

Press "Start/Stop" or "OK" or "Cancel"

Connect the robot control box to the robot
Connect the Diag box
Connect the robot control box to the Diag box using the yellow adaptor

Press "Cleaner" then "Start/Stop"

Disconnect/reconnect the control box/Diag box assembly
Press "Cleaner" then "Start/Stop"

TEST OK

FAIL - RL

Disconnect/reconnect the Diag Box
Press "Cleaner" then "Start/Stop"

FAIL - RL

Change the Diag Box

FAIL - Com

Change the control box

FAIL - Com

Change the unit motor

FAIL - Com

Change the unit motor

FAIL - Com

Refer to the fault description at the top of the flow chart

FAIL - At

Refer to the fault description at the top of the flow chart

FAIL - Com

Refer to the fault description at the top of the flow chart

FAIL - Com

Refer to the fault description at the top of the flow chart

TEST OK

Motor Traction
motor forward

tFd

Traction motor
reverse

tbd

Rotation right
test

tcl

Rotation left
test

tcc

Pump motor
start

Pon

Pump motor
stop

PoFF

TEST OK

FAIL - RL

Refer to the fault description at the top of the flow chart

FAIL - At

Refer to the fault description at the top of the flow chart

FAIL - Com

Check the transmission system and the propeller
Check in the connector on the cable side that the wires are correctly connected
Check the connection board

OK

OK

OK

Problem on the transmission or propeller
Problem on the cable
Problem on the board

Change the transmission system or propeller
Change the cable
Change the board

SC

OK

OK

OK

OK

SC

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OK
7. Remote control Test: depending on the Vortex™ model

Switch on the remote control and press and hold (8 seconds): OK + CANCEL

- **Good**
  - Turn the remote control to test the reception
  - Check the consistency between the orientation and the message which is displayed
  - To the FRONT
  - To the REAR
  - To the LEFT
  - To the RIGHT
  - STOP position - Horizontal
  - Out of range

- **FAIL**
  - Replace the batteries
  - Carry out the peering operation at least once
  - If the FAIL message is displayed again, replace the remote control

To exit the peering operation, press: OK or CANCEL or START-STOP

8. Full Test: enhanced mode (with Full Test Software application)

8.1 Downloading Full Test Software

Before you use the tool for the first time, download the Full test Software application from: www.zodiac-poolcare.com
- Access your Professional area
- Open the Care Center section, the download Full Test Software

8.2 Start-up

1. - Mains connection.
   - The OUT message is displayed.

2. - Robot
   - Control box
   - Motor unit

3. Computer connection
   => The USB message replaces the OUT message (the Quick Test functions are no longer accessible)

4. Full Test Software application launched

8.3 Meaning of the lights (Full Test mode)

<table>
<thead>
<tr>
<th>Lights on</th>
<th>Meaning of the lights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø</td>
<td>Not used</td>
</tr>
<tr>
<td>USB</td>
<td>The USB cable is connected</td>
</tr>
<tr>
<td>↔</td>
<td>Data being transferred between the Diag Box and the computer</td>
</tr>
<tr>
<td>!</td>
<td>Malfunction detected, check the Diag Box display</td>
</tr>
</tbody>
</table>
9. Product conformity

This appliance has been designed and built according to the following standards:

**Low voltage directive:** 2006/95/EC

**Electromagnetic compatibility directive:** 2004/108/EC


Relative to which it is compliant.

**SAFETY STANDARDS:**
The cleaners are classified by the ETL as being compliant with the appropriate requirements of IEC 60335-2-41.
Votre revendeur
Your retailer

Modèle appareil
Appliance model

Numéro de série
Serial number

Trouvez plus d’informations et enregistrez votre produit sur
More informations and register you product on

www.zodiac-poolcare.com