Quick Guide
DURA-V10
DURA-V15
DURA-V20
DURA-V11i
DURA-V15i
DURA-V20i

HEAT Dura V / Vi
1. Specifications

1.1 Refrigerant weight Dura V

<table>
<thead>
<tr>
<th>UNIT</th>
<th>DURA-V10</th>
<th>DURA-V15</th>
<th>DURA-V20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerant weight (kg)</td>
<td>1,110</td>
<td>1,410</td>
<td>1,645</td>
</tr>
</tbody>
</table>

1.2 Refrigerant weight Dura Vi

<table>
<thead>
<tr>
<th>UNIT</th>
<th>DURA-V11i</th>
<th>DURA-V15i</th>
<th>DURA-V20i</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerant weight (kg)</td>
<td>0,880</td>
<td>1,050</td>
<td>1,510</td>
</tr>
</tbody>
</table>
2. Preparing the heat pump for use

2.1 Typical set-up
The factory provides the heat pump, Condens flux, connection kit and winter cover. Other parts, including a contingent by-pass must be provided by the user or installer. The heat pump should be located maximum 7,5m (1) away from the swimming pool. The longer the distance from the pool, the greater the heat loss from the piping.

Put the heat pump on a flat, solid base. Tilting the heat pump for max 3° is allowed. Install silent blocks in order to avoid vibrations and noise.

All feeding of water treatment to the pool water has to be done downstream of the heat pump (2).

It is normal for condens water to come out of the heat pump. This is not a leak or fault with the unit. If the humidity is very high, the condens water could be a number of liters a day.

Always keep the heat pump in upright position. If the unit has been tilted, then wait 24h before starting the heat pump.

It is recommended to install a by-pass for easy maintenance.

2.2 Unobstructed space
A free area around the heat pump has to be kept clear from any object to get fresh air across the evaporator. Do not obstruct the fan.
2.3 Electrical wiring
Connect the electrical wires using the following steps.

Step 1: Remove display.

Step 2: Unscrew blue front housing.

Step 3: Snap off blue front housing

Step 4: Remove flow sensor

Please turn off filter pump. Flow must be stopped before disconnecting flow sensor. Drain the water out of the condensor to prevent water loss.

Make sure the arrow upon the flow sensor is pointing towards the water connection (1).

Step 5: Remove transparent cover.

Step 6: Insert the electrical cable at the bottom of the heat pump (1). Make electrical connection with heat pump’s terminal block (2).
3. Operation and Use

3.1 Types of display interfaces in the heat pump

4 types of interfaces can be found in the heat pump.

1: General interface.

2: Enter Parameter interface.

3: Error interface

4: Enter Error parameter interface.
3.2 General display interface

**Low air temperature:**
The heat pump stops working and will restart automatically when the ambient temperature is above -10°C.

**High air temperature:**
The ambient temperature is above 40°C. The heat pump keeps on working without fan. As soon as the temperature drops below 40°C the fan restarts.

The ambient temperature is above 50°C. The heat pump will not use the compressor and fan to protect control components. As soon as the temperature drops below 50°C the compressor restarts.

**Low flow:**
The heat pump stops working. The amount of flow going through the heat pump is too low. The heat pump will restart automatically when the flow is restored.

**Heating:**
Highlights when the heat pump is heating.

**Defrosting:**
Highlights when a special ice-melting program is active in the heat pump. Heating mode will continue when the amount of ice upon the evaporator is reduced.

**Set:**
Highlights when the heat pump is unlocked. Meaning the heat pump desired temperature or parameters can be changed.

**Set temperature:**
Shows the desired temperature of the swimming pool. Your heat pump will stop heating when desired temperature is reached. The heat pump will start automatically when the water temperature drops below set point.

**UP:**
Press to increase desired temperature. Any changes will be saved automatically.

**Down:**
Press to reduce desired temperature. Any changes will be saved automatically.

**Set:**
Press to change the heat pump settings. Please find more information about the parameter interface in full version.

**Flow bar:**
Indicates the amount of flow going through the heat pump.

**ON/OFF:**
Press the ON/OFF button to start the heat pump. The current water temperature will appear and the heat pump will start automatically when the water temperature is reached. Meanwhile the current water temperature is shown on the display.

Press the ON/OFF button to stop the heat pump. OFF will appear on the display.

**Display lock:** The display shows the lock symbol when there’s no interaction for 5min. Press any button for 3 seconds to unlock the display.
3.3 Parameter interface

Parameters can be set by a qualified person in order to make the heat pump more efficient depending on the specific conditions of the swimming pool.

Parameter name:
Name of parameter. The following can be found:
- C01 to 618: Consistant parameter
- U09 to U17: User editable settings/parameter
- 518 to 542: Sensor settings/parameter
- 143 to 155: Installer editable settings/parameter
- PS6 to P90: Factory editable settings/parameter

Set:
Is not visible when you scroll through the list of parameters.
Is visible when the selected parameter can be changed.

Value parameter:
Current value of the selected parameter. Any changes will be saved automatically.

Up:
Scroll up through the list of parameters.
Edit the value of the selected parameter.

Down:
Scroll down through the list of parameters.
Edit the value of the selected parameter.

Set:
Press to enter or exit the parameter menu.

ON/OFF:
Select the parameter you want to edit.

User editable parameter may be changed by the end user. Installer editable parameters and factory settings may only be changed in a service center or by similar qualified persons in order to avoid a hazard.

Please find a complete list and more information about each error in full version.

Display lock: The display shows \textit{Loc} when there’s no interaction for 5min. Press any button for 3 seconds to unlock the display.
3.4 Error interface

When an issue is detected the heat pump will try to solve it by analyzing several parameters, restarting components and bypassing electronics. An error is shown on the display when the program can not solve the issue.

Please contact your service centre or similarly qualified persons when an error occurs.

High gas pressure:
The pressure in the system remains 42 bar or higher in the past 24 hours.

Low gas pressure:
The pressure in the system remains 0.2 bar or lower in the past 24 hours.

Err:
Notification of error. Every 5 second the ERR is switched with the total amount of errors in the system. The following can be found:

Err: Notification of error

T:
A temperature sensor error is active in the heat pump.

I:
An inverter error is active in the heat pump (only in Dura-Vi series)

Set:
Press to enter error parameter interface. Please find more information about the error parameter interface in section 6.7.

Overheat:
The temperature in the system is remained 110°C or higher in the past 24 hours.

Please find a complete list and more information about each error in full version.

Display lock: The display shows Loc when there’s no interaction for 5min. Press any button for 3 seconds to unlock the display.
3.5 Error parameter interface

A complete list of errors can be found in the error parameter interface.

Number of error in the heat pump:
Number of error. The following can be found:

E: Notification of Error.

Error notification name:
Name of error in the heat pump.
The following can be found:

- Ambient temperature sensor error
- Evaporator temperature sensor error
- Water outlet temperature sensor error
- Water inlet temperature sensor error
- Discharge line temperature sensor error
- Liquid line temperature sensor error
- Suction line temperature sensor error
- Super heat line temperature sensor error
- Inverter error

Please find a complete list and more information about each error in full version.

Display lock: The display shows when there’s no interaction for 5min. Press any button for 3 seconds to unlock the display.
4. Maintenance and Inspection

- Check the water inlet and drainage often. The water and air inflow into the system should be sufficient so that its performance and reliability does not get compromised. You should clean the pool filter regularly to avoid damage to the unit caused by clogging of the filter.
- The area around the unit should be spacious and well ventilated as shown in section 2.2. Clean the sides of the heat pump regularly to maintain good heat exchange and to save energy.
- Check if all processes in the unit are operational.
- Check the power supply and cable connections regularly. Should the unit begin to function abnormally or should you notice a smell from an electrical component, arrange for timely repair or replacement.
- You should also purge the water if the unit will not work for an extended period of time. You should check all parts of the unit thoroughly and completely fill the system with water before turning it on again afterwards.

If your heat pump has been stored for a long time, perform the following steps when re-starting the system:

1. Inspect the system for any debris or damage to the case.
2. Clean the evaporator fins with a soft cloth if necessary. Make sure the evaporator fins are clean. Blocking the air intake will cause insufficient operation and will result in lower production of heat.
3. Check the fan for blockages.
4. Connect the water inlet and outlet.
5. Turn on the pool water circulation pump to start the water flow to the heat pump.
6. Restore electrical power to the heat pump and press the reset button on the RCD.

5. Service

If you need service or information or if you have a problem, please contact your local dealer. If needed they will contact the manufacturer to solve your problem.

They are gladly willing to assist you!

You can find more information and the full manual on our website

www.duratech.be
6. Warranty

LIMITED WARRANTY

We warrant all parts to be free from manufacturing defects in materials and workmanship for a period of THREE years from the date of retail purchase.

This warranty is limited to the first retail purchaser, is not transferable, and does not apply to products that have been moved from their original installation sites. The liability of the manufacturer shall not exceed the repair or replacement of defective parts and does not include any costs for labour to remove and reinstall the defective part, transportation to or from the factory, and any other materials required to make the repair. This warranty does not cover failures or malfunctions resulting from the following:

1. Failure to properly install, operate or maintain the product in accordance with our published “Installation & Instruction Manual” provided with the product.
2. The workmanship of any installer of the product.
3. Not maintaining a proper chemical balance in your pool [pH level between 7.0 and 7.8. Total Alkalinity (TA) between 80 to 150 ppm. Free Chlorine between 0.5 – 1.2 mg/l. Total Dissolved Solids (TDS) less than 1200 ppm. Salt maximum 8g/l]
4. Abuse, alteration, accident, fire, flood, lightning, rodents, insects, negligence or acts of Gods.
5. Scaling, freezing or other conditions causing inadequate water circulation.
6. Operating the product at water flow rates outside the published minimum and maximum specifications.
7. Use of non-factory authorized parts or accessories in conjunction with the product.
8. Chemical contamination of combustion air or improper use of sanitizing chemicals, such as introducing sanitizing chemicals upstream of the heater and cleaner hose or through the skimmer.
9. Overheating, incorrect wire runs, improper electrical supply, collateral damage caused by failure of O-rings, DE grids or cartridge elements, or damage caused by running the pump with insufficient quantities of water.

LIMITATION OF LIABILITY

This is the only warranty given by Manufacturer. No one is authorized to make any other warranties on our behalf.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY. WE EXPRESSLY DISCLAIM AND EXCLUDE ANY LIABILITY FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT OR PUNITIVE DAMAGES FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY.

This warranty gives you specific legal rights, which may vary, by country.

WARRANTY CLAIMS

For prompt warranty consideration, contact your dealer and provide the following information: proof of purchase, model number, serial number and date of installation. The installer will contact the factory for instructions regarding the claim and to determine the location of the nearest service center.

All returned parts must have a Return Material Authorization number to be evaluated under the terms of this warranty.
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1785 Merchtem, Belgium

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Fax +32 2 706 59 60

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info@propulsionsystems.be

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