# **VELTRON HEATERS**

## **USER MANUAL**

- ► Thank you for purchasing the VELTRON Heater.

  Please read this user manual carefully before you operate this heater.
- ▶ It is recommended that you put this manual where the user can easily find it. It is obligatory that the user read "Notice for Safety" carefully before using, and they should be aware of this notice whenever using this heater.
- ▶ This heater is designed for your country only. If you use it in another coun try, you have to check the electricity first, and if the electricity condition is the same, you can use it.
- ▶ A warranty card is enveloped in this manual.
- ▶ The contents (features and specifications) in this manual are subject to change without notice.





# TABLE OF CONTENTS

• NOTICE FOR SAFETY ——————	<b>—</b> 3-5
• STRUCTURE & DESCRIPTION —	<b></b> 7 <b>-</b> 9
- STRUCTURE & DESCRIPTION	7
- REMOTE CONTROLLER —	<del>-</del> 8
- CONTROL	<b>9</b>
• HOW TO USE	<del>-</del> 9~15
- OPERATION & STOP ———————	
- TEMPERATURE CONTROL ——————	
- SELF DIAGNOSIS FOR THE SAFETY DEVICE	_
• CLEANING & MAINTENANCE —	<b>—</b> 16
• DAILY CHECK POINTS & ADJUSTMENT —	<del></del> 17~18
TROUBLE SHOOTING	— 19 <b>~</b> 20
• SPECIFICATION & WIRING DIAGRAM ——	<b>—21</b>
WARRANTY CARD ————————————————————————————————————	<b>— 22</b>

## NOTICE FOR SAFETY

This is for protecting the user's safety and preventing any property damage. Please read carefully and follow the instructions in this manual.It is classified as "Warning" and "Caution" by the contents.

**WARNING** In cases of misuse, it may cause serious wounds or death.

CAUTION

In cases of misuse, it may cause a slight injury or property damage.

## Meaning of symbols





## WARNING



Use an AC 220/230V (50 Hz) power supply only. (Otherwise, it may cause a fire or an electric shock.)



In the case of cleaning, you must take out the plug from the outlet and wait until the furnace is cooled down sufficiently. (Otherwise, it may cause an electric shock or a burn.)



It is dangerous to turn off this heater by taking out the power plug.

(It may cause a malfunction or electrical shock.)



Do not take out the plug while holding the cord or with wet hands.

(It may cause a fire or an electric shock.)

Do not extend the power cord with connecting another cable in the middle. (It may cause a fire or an electric shock.)



Use the proper fuse.

(Otherwise, it may cause malfunctioning or a fire.)



Put a plug into the outlet tightly with Earth (-)

(It may cause an electric shock.)



Please turn it off using the ON/OFF button. (Otherwise, it may cause an electric shock or a burn.)



Do not fold the power cord or put heavy

(It may be damaged by the covering material, which might cause a fire or an electric shock.)

Do not place any inflammable material near the heater, including curtains, carpet, paper, match, clothes, etc. (It is exposed to the danger of fire or a burn.)

Do not place or use any inflammable near the heater, including fuel, gas, thinner, benzene, spray, solvents, volatile organic compounds,

(It is exposed to the danger of fire or explosion.)

Place this manual noticeably near the heater so that, if necessary, the user can always find it easily.

# **NOTICE FOR SAFETY**

## **CAUTION**

A	You must ventilate well while you are using the heater, and do not use it in a stuffy area where ventilation is not possible.  (You need to ventilate with fresh air 1~2 times per hour.) (In cases of incomplete combustion due to a lack of oxygen, carbon monoxide can be increased to cause an accident from poisoning.)	A	It is dangerous to use this heater for a long time in a closed room, especially if there are children, the elderly, or the weak. (It is recommended that the user open the windows to let fresh air into the room if the room is stuffy.)
$\bigcirc$	It is dangerous to put your hands or anything else into the grill or furnace or to apply a considerable shock or force to the heater. (It is exposed to fire, bum, or electric shock.)	$\bigcirc$	Do not place any inflammable vinyl or plastic goods on top of the heater or cover the heater grill with clothes. (It is exposed to fire or burn.)
$\Diamond$	Do not place any electrical items or heavy materials on top of the heater. (It may cause malfunctioning or electrical shock, or if the heavy material falls, the user can be injured by shock or a burn.)	$\bigcirc$	Do not touch any of the heated material, such as the grill, furnace, etc. While the heater is operating or just after extinguishing, the grill and furnace are hot, so do not touch any of those parts. Especially pay more attention to keeping children away from hot materials. (they may cause a burn).
$\bigcirc$	Do not move or transport during the operation. (It may cause a fire or a burn.) (In case of moving, you must turn off heaters and take our power plug.)	$\bigcirc$	It is recommended not to use this heater in highly elevated areas. (Do not use this heater in areas where it is higher than 1500m above sea level.)
$\bigcirc$	Do not use this heater for anything other than heating. (Do not use this heater for keeping pet animals.)	$\bigcirc$	You need frequent ventilation in areas 700–1500 m above sea level. (Due to the lack of oxygen, carbon monoxide can be increased to cause an accident from poisoning.)
$\bigcirc$	Do not operate this heater while you are sleeping. (Due to no ventilation while you are sleeping, the room easily gets stuffy and lacks oxygen.)	0	Pay attention to avoiding water entering the heater during cleaning. (It may cause a fire or electric shock.)  If you use an extension cord to power the heater, only a rubber extension cord rated at 230V 1.5X3 with ground (IP44) may be
$\Diamond$	Do not use this heater in unstable places. (Do not use this heater on an inclined surface or a shaking support. This heater may fall down, which may cause a fire or malfunction.)		used, up to a maximum length of 20 meters, with a specification of 3G 1.5mm² and a 16A rating. The manufacturer or importer does not assume responsibility in case of a fire or any other electrical accident resulting from a damaged extension cord (e.g., run over by a forklift or crushed by a heavy object).

<sup>\*</sup> Place this manual noticeably near the heater so that, if necessary, the user can always find it easily.

## NOTICE FOR SAFETY

### CAUTION



When storing this heater, be sure that you store it in a dry place indoors instead of in a hot and humid environment.

(Otherwise, it gets rusty or goes into trouble.)



You must take the plug out of the outlet if there is a flash of lightening or thunder or if you haven't used it for a long time.

(Otherwise, it is exposed to the danger of electrical shock, a short circuit, or a fire.)



Do not put an excessive physical shock on the remote controller, and do not disassemble it arbitrarily.



Call your local after-sales service agent in case the power cord is damaged.

(Otherwise, it is exposed to the danger of electric shock, a short circuit, or a fire.)



Do not put this heater on an unstable surface of the ground, such as an inclined or bumpy surface

(The heater may not work.)



Do not shower water on the heater directly, nor use benzene, thinner, or alcohol for cleaning. (Otherwise, it is exposed to the danger of electrical shock, a short circuit, or a fire.)



If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or a similarly qualified person in order to avoid a hazard.

(Otherwise, it is exposed to the danger of electrical shock, a short circuit, or a fire.)



Do not operate this heater in a place where it gets wet from the humidity, such as a bathroom. (It may cause an electrical short circuit or an electrical shock accident.)

## TIPS BEFORE INSTALLATION...

- 1. Make sure the safety in the place where you wish to use this heater ensured.
- The ground surface and surrounding area should be plain, non-flammable, and solid.
- You need to have sufficient space surrounding the heater, at least 15cm from the wall and the left and right sides, and at least 1 meter from the colling and the front side, without any obstacles
- ceiling and the front side, without any obstacles.

  You need to use an exhaust duct when operating in small spaces.

(Recommended duct specification: 75mm or more (diameter)

(Be sure there are no raindrops entering the exhaust duct end.)

(You must ventilate frequently with fresh air by

- opening a window or fan.)
   You must put an extinguisher beside the heater.
- There must not be direct sunlight or excessive heat near the heater.
- After you fix the installation, lock the caster to avoid unexpected movement.

- Do not use this heater near a fabric, carpet, plastic, or vinyl curtain that may cover the heater in case of falling down, but in the wind or by any physical force that may cause a fire.
- The heater must not be located immediately below a socket outlet.
- Positioned so that the plug is accessible.
- You must use diesel or kerosene as fuel.If you use other fuel, it may cause excessive soot or malfunction.
- In the case of refueling, make sure the heater is turned off.
- To be made by the manufacturer or his service agent, who should be contacted if there is an oil leakage
- Regulations concerning the disposal of oil when scraping the appliance have to be followed.
- 3. The proper electricity is 220/230V, 50 Hz. It will be applied and adjusted as per the customer's request. You must supply power as per its requirements only once they are adjusted.

## TIPS BEFORE INSTALLATION...

- \*Ensure the safety of the planned location for the diesel heater.
- \*The base surface should be flat, strong, and non-flammable.
- \*Sufficient clear space is required around the heater the left and right sides of the heater should be at least 15 cm away from the wall, the distance from the ceiling should be at least 1 m, and there should be a minimum of 1 m of free space in front of the heater.

\*When using the heater in a very small space, it is advisable to use an exhaust pipe or fresh air intake, **this is recommended but not mandatory**. It is recommended to use fresh air inlet from outside in case of small spaces, if needed it is possible to use exhaust pipe: please refer to the diagram.

Recommended dimensions and material for the exhaust pipe: 75 mm diameter, 5 meters in length, made of aluminum. Ensure that rain does not enter the exhaust pipe. The room should be well-ventilated, either by opening windows or using a fan.

- \*A fire extinguisher must be placed next to the heater.
- \*The heater should not be exposed to direct sunlight or placed near a heat source.
- \*After installation, lock the device's transport wheels to prevent accidental movement.
- \*Do not use the heater near fabric curtains, carpets, or plastic or vinyl curtains, as wind or other forces may cause the heater to become entangled, potentially leading to a fire.
- \*The heater should not be placed directly under a power outlet.
- \*The heater should be positioned to allow access to the power plug.
- \*Only diesel fuel may be used as the fuel source.
- \*The use of other fuels may result in excessive soot or equipment malfunctions.
- \*The heater must be turned OFF during refueling.
- \*In the event of a fuel leak, contact the manufacturer or an authorized service center.
- \*When disposing of the device, follow the relevant regulations for fuel disposal.
- \*The required electrical supply is 220/230V, 50Hz. The heater will be configured to meet the customer's needs and should only be connected to the power supply after this configuration.

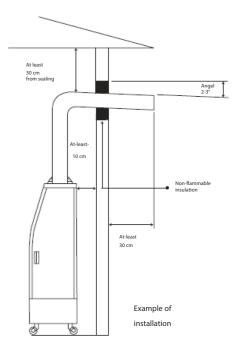
#### **Installation Instructions:**

Install the heater on a **flat surface**. If the heater is installed on an inclined surface, the burner may be damaged due to uneven burning.

**REFER TO THE DIAGRAM:** If there is no ventilation in the room or no ventilation system is present, or if there is insufficient oxygen flow, it is recommended and possible to install an exhaust pipe with the layout shown in the diagram. If the exhaust pipe is passed through a flammable wall, cover the inside of the wall with non-flammable insulation at least 3 cm thick.

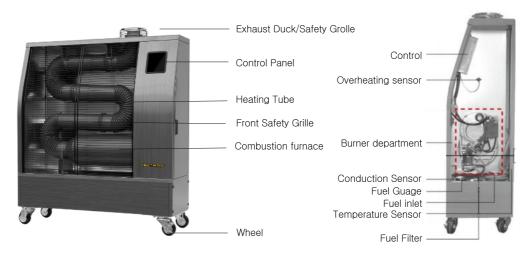
\*Use a stainless steel exhaust pipe (75-80 mm in diameter). The length of the pipe should be less than 4 m, and there should be no more than two joints.

More than two joints in the exhaust pipe or a longer exhaust pipe than 4 m may cause incomplete combustion.

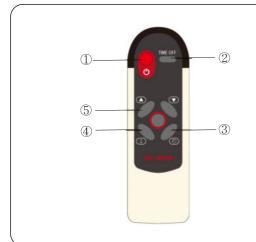


## STRUCTURE & DESCRIPTION

## STRUCTURE & DESCRIPTION FOR MODEL \* This design may be changed for improved efficiency.



## REMOTE CONTROL



### 1. ON/OFF

When the heater turns ON or OFF, you can press this button.

#### 2. OFF TIMER

Every time you press this button, the heater repeats set-up and cancels.

#### 3. TIME SELECT BUTTON

To select the time control mode

#### 4. TEMP SELECT BUTTON

To select the temperature control mode.

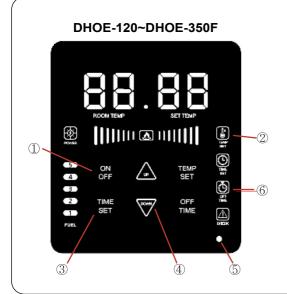
#### 5. UP / DOWN

To set or change the temperature or time

- ① Connect the power cord of the heater to the outlet.
- ② When you connect a power plug, the current temperature is displayed.
- ③ When you press the UP/DWON button, the desired temperature is displayed.
- 4 You can set the desired temperature between "0~40°C (1°C per press).

## STRUCTURE & DESCRIPTION

## **CONTROL PANEL**



#### 1. ON / OFF

#### 2. TEMP SELECT BUTTON

To select the temperature control mode.

#### 3. TIME SELECT BUTTON

To select the time control mode.

#### 4. UP / DOWN

To select the time control mode.

#### 5. IR RECEIVER FOR REMOTE CONTROL

### 6. OFF TIMER

To select whether off-timer mode is operated or not.





#### 1. ON / OFF

### 2. TEMP SELECT BUTTON

To select the temperature control mode.

### 3. TIME SELECT BUTTON

To select the time control mode.

### 4. UP / DOWN

To select the time control mode.

#### 5. IR RECEIVER FOR REMOTE CONTROL

#### 6. OFF TIMER

To select whether off-timer mode is operated or not.



- When the heater turns off, the motor (to cool the heater) is operated.
- It is dangerous to turn off this heater by taking out the power plug. It may cause a malfunction or electrical shock. Please stop the heater using the ON/OFF button.
- If the malfunction is caused by a power outage, the customer is responsible for the repair.

### **OPERATION & STOP**

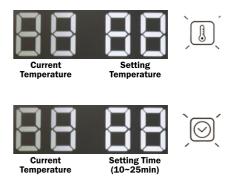
#### DHOE-120~DHOE-350F

1. Connect the power plug (you can see the current temperature), then press the on/off button. (Check "SET tem/time," the number on the right side.)

But if this heater operates in case it is first used from purchase, turn the air screw left around three times and then start by pressing the "ON/OFF" switch. The heater will be turned on with a "beep" sound and automatically operated. Fasten the air screw after 4 seconds. If the "E1" error is displayed, press the "ON/OFF" switch more times.



2. Select the desired operation type using the "TEMP or TIME" button



3. Set the time or temperature by pressing the "Temp select button" or "Time select button."

"Temperature": You can set the desired temperature between " $0\sim40^{\circ}$ C." "Time": Set the desired time limit between " $10\sim25$ min" (5min per press).





### X Tip

In order to operate, the setting temperature should be higher than the current temperature.

- After power on, the default mode is temperature control mode.

During the operation, if you push the ON/OFF button, the heater will stop and the off-timer function will be cancelled.

Circulation fans operate in a minute after turning on the heater and stop in two minutes after turning off the heater. (This fan is for circulating heat and a cooling heater.)

The model equipped with a "solenoid valve (by-pass device) makes the remaining oil return to the oil tank. For 10 seconds, from the time the burner is off, the solenoid valve is in operation, which makes the remaining oil return to the oil tank, and by this device, the smell caused by unburned gas is remarkable shrunk.

### TEMPERATURE CONTROL

This mode enables the user to set the desired temperature, and once it is fixed, this heater works automatically, running and stopping repeatedly to meet this temperature. (If power is on and the heater starts operation, the temperature control mode will be operated by default.)

1. Push the ON/OFF button.



2. By pressing the "Set Temp" button, select the temperature control mode. At that time, the temperature control lamp will light up.



- 3. By pushing the "▲" or "▼" buttons, select the desired temperature.

- The setting range is 0~40°C.
- The default value is 25 °C.

During the time you push "▲", "▼", "setting temperature" is increased or decreased very fast.

The "room temperature" display range is: -9~50°C.



4. During operation, "room temperature" and "setting temperature" are displayed, and if you push the ON/OFF button and make the operation stop, only "room temperature" is shown.

5. When "setting temp" is higher than 2°C than "room temp", heaters operate, and when "setting temp" is less than 1°C than "room temp", the operation stops. Room temp. < Setting temp. & over 2°C gap: Operate.

Current temp. > Setting temp. : Stop.



### ※ Tip

The current temperature is less than -9°C (16°F), the display of the temperature is 'LO', and more than 50°C (99°F), it is displayed as 'HI' (50°C is not the same value as 99°F; actually, 37°C is the same value

The setting temperature is increased or decreased by 1°C by pushing the (▲/▼) button if you push the button for more than 2 seconds. The value is increased or decreased by 1°C in 0.2 seconds. If you push the ▲ and ▼ buttons simultaneously for 5 seconds, the unit is converted from °C to °F (the default unit is °C).

## TIME CONTROL

This mode enables the user to set the desired time, and once it is fixed, this heater works automatically, running and stopping repeatedly to meet this time. (If power is on and the heater starts operation, the temperature control mode will be operated by default.)

1. Push the ON/OFF button. 2. By pushing the "Set Time" button, select time control mode. At that time, the time control lamp is lit.  $\nabla$ 3. By pushing the "▲" or "▼" buttons, select the desired The setting range is 10~25 min.
The default value is 25 °C.
Each time the "▲" and "▼" buttons are pressed, the time changes by 5 minutes. ex1) 5 minutes setting: repeat 5 minutes operation + 5 minutes break. ex2) 25-minute setting: repeat 25-minute operation + 5-minute break.

### **OPERATION & STOP**

#### DHOE-90

1. Connect the power plug (you can see the current temperature), then press the on/off button. (Check "SET tem/time," the number on the right side.)But if this heater operates in case it is first used from purchase, turn the air screw left around three times and then start by pressing the "ON/OFF" switch. The heater will be turned on with a "beep" sound and automatically operated. Fasten the air screw after 4 seconds. If the "E1" error is displayed, press the "ON/OFF" switch more times.



2. Select the desired operation type using the "TEMP or TIME" button.





Current Temperature

Setting Temperature





Setting Time (10~25min)

3. Set the time or temperature by pressing the "Temp select button" or "Time select button." "Temperature": You can set the desired temperature between " $0\sim40^{\circ}$ C."

<sup>&</sup>quot;Time": Set the desired time limit between "10~25min" (5min per press).





### X Tip

- In order to operate, the setting temperature should be higher than the current temperature.
- After power on, the default mode is temperature control mode.
- During the operation, if you push the ON/OFF button, the heater will stop and the off-timer function will be cancelled.

Circulation fans operate in a minute after turning on the heater and stop in two minutes after turning off the heater. (This fan is for circulating heat and a cooling heater.)

The model equipped with a "solenoid valve (by-pass device) makes the remaining oil return to the oil tank. For 10 seconds, from the time the burner is off, the solenoid valve is in operation, which makes the remaining oil return to the oil tank, and by this device, the smell caused by unburned gas is remarkable shrunk.

### **TEMPERATURE CONTROL**

This mode enables the user to set the desired temperature, and once it is fixed, this heater works automatically, running and stopping repeatedly to meet this temperature.

(If power is on and the heater starts operation, the temperature control mode will be operated by default.)

1. Push the ON/OFF button.



- 2. By pressing the "Set Temp" button, select the temperature control mode.
- At that time, the temperature control lamp will light up.



- 3. By pushing the "▲" or "▼" buttons, select the desired temperature.
- The setting range is 0~40°C.
- The default value is 25 °C.
- \* During the time you push "▲", "▼", "setting temperature" is increased or decreased very fast.
- The "room temperature" display range is: -9~50°C.



4. During operation, "room temperature" and "setting temperature" are displayed, and if you push the ON/OFF button and make the operation stop, only "room temperature" is shown.

- 5. When "setting temp" is higher than 2°C than "room temp", heaters operate, and when "setting temp" is less than 1°C than "room temp", the operation stops.
- Room temp. < Setting temp. & over 2°C gap : Operate.
- Current temp. > Setting temp. : Stop.



## X Tip

- The current temperature is less than -9°C (16°F), the display of the temperature is 'LO', and more than 50°C (99°F), it is displayed as 'HI' (50°C is not the same value as 99°F; actually, 37°C is the same value as 99°F).
- The setting temperature is increased or decreased by 1°C by pushing the (▲/▼) button if you push the button for more than 2 seconds. The value is increased or decreased by 1°C in 0.2 seconds
- If you push the ▲ and ▼ buttons simultaneously for 5 seconds, the unit is converted from °C to °F (the default unit is °C).

## TIME CONTROL

This mode enables the user to set the desired temperature, and once it is fixed, this heater works automatically, running and stopping repeatedly to meet this temperature.

(If power is on and the heater starts operation, the temperature control mode will be operated by default.)

1. Push the ON/OFF button.



2. By pushing the "Set Time" button, select time control mode. - At that time, the time control lamp is lit.



- 3. By pushing the " $\blacktriangle$ " or " $\blacktriangledown$ " buttons, select the desired time.

- The setting range is 10~25 min.
Each time the "▲" and "▼" buttons are pressed, the time changes by 5 minutes.

ex1) 5 minutes setting: repeat 5 minutes operation + 5 minutes break. ex2) 25-minute setting: repeat 25-minute operation + 5-minute break.



## ITEMS TO CHECK BEFORE INFROMING OF TROUBLE

If the following error or trouble signs are displayed on the operation panel

Displayed messages	Description of troubles	Items to check and required actions
E1. No ignition	The burner is misfiring	- The lack of fuel - There is air in the fuel tube (▶ air discharge) Photocell pollution (▶ cleaning)
E2. Photecell (flame sensor)	Photocell trouble Detrction of residual flame	- Unpluged Photocell (▶ plug), Phototube Trouble (▶ exchange) If the heater is stopped just after ignition, there is residual flame (no change; ▶ Re-operation).
E3. Temperature sensor	Temperature sensor trouble	- Check if the temperature sensor connector is loosening. (Firmly connect the connector if it is loosened.)
<b>E4.</b> Overheating sensor	The product is overheated	- Check if there are any nump signs inside the burner. (Ask the survivor.) - Check if the overheat protector wire is disconnected. (Operate the heater again after connecting the wire.)
E5. Slope	Tile of heater	Check if the heater is moved (a tilt may occur if the heater is shaken or moved). Operate the heater again.     The inversion switch wire is disconnected. (Operate the heater again after connecting the wire.)
E6. Lack of fuel	Lack of fuel	- Refuel and operate.
<b>E7.</b> Burner fan motor operation error	Voltage is not constant (impluse occurs) Burner fan motor malfunction	Check the voltage condition and restart.     Burner motor wiring connection defect: Restart after connection measures     Burner motor defective; replace.
E8.		·
E9. Poor communication with the main PCB	Burner fan motor if a data error occurs more than three times or the signal is disconnected for more than one second during communication with the main PCB malfunction.	- Auto-release
HI	Temperature is above 50 °C	- Check that the temperature sensor is installed inside. (Install the sensor outside.)

If the troubles E1 ~ E9 occur, check the causes and take the required action.

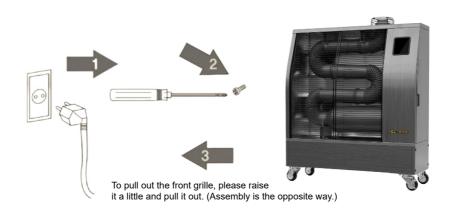
If you press the power button twice, you may restart the heater.

If the troubles persist even after taking the actions indicated in the below table,

Troubles	Items to check	Required action
All lamps on theoperation panel are turned off.	<ul> <li>Power failure</li> <li>The power plug is unplugged.</li> <li>Fuse burns out.</li> </ul>	- Plugning - Changing Fuse
The lamp is repeatedly turned off and turned on.	- Select the time (check the lamp).	- Select the temperature.
The heater is operated with no indication of oil.	- Flowmeter wiring is unplugged.	- Line connection
Something burning smells during the initial operation.	Foreign substances are burned inside the gasket.	- To disappear after 1 or 2 hours
The fuel smell is unusual.	- There is a smell when the heater is stopped as soon as it starts On oil supply, spilling fuel	- Operate 15' or more. - Remove spilled oil.
The room temperature is higher than the normal one.	Check if the location of the temperature sensor (it may occur if the sensor is installed inside).	- Fix the sensor at the correct position.

## **CLEANING & MAINTENANCE**

## **CLEANING & MAINTENANCE**



In case you keep the heater for a long time and you want to maintain its clean status, please power off and cool down the heater, pull out the plug as shown in the above picture, and clean according to the following instructions.

- Please pull out the frint grille by raising it and pulling it out to the front.
- Please clean the heating reflection, which is on the back side of the heater and burner area. The combustion tube has a ceramic coating. (Be careful not to damage the coated surface.)

#### **\* DO NOT DISASSEMBLE THE BURNING PARTS.**

- Please wipe out the front controller area with soft wool.
- After finishing the cleaning, please assemble the front grille for the heater.

### **STORING**

To store the heater, cool down the heater and plug out and wrap with plastic cover and keep in the well air-flowing place. You'd better consume all the oil in the tank.



**CAUTION** To keep a heater in an outdoor or humid place is a major cause of problems.

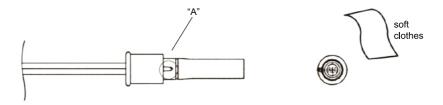
## DAILY CHECK POINTS & ADJUSTMENT

### DAILY CHECK POINTS

### CLEAN OF FLAME SENSOR (Photocell, CDS)

- If the detection part of the photocell is contaminated by soot or other dirt, the performance can be lowered, which may cause a problem.
- Please take out the photocell carefully, which is placed in the lower part of the burner.
- Please clean the detection part of the photocell with soft clothes.

Be sure a photocell is fixed correctly. (Mark "A" should be inserted fully.)



#### **CLEAN OF COMPONENTS**

- If you need to change components, please contact us.
- In case of a repair or exchange of components, please contact the service center operated by our distributor's head office.
- Do not try to repair this heater by non-licensed service personnel because it may cause a worse condition, so please contact the local service center or distributor that is designated by our company.

## DAILY CHECK POINTS & ADJUSTMENT

### ADJUSTMENT

#### ▶ IN CASE OF SUDDEN STOP DURING OPERATION

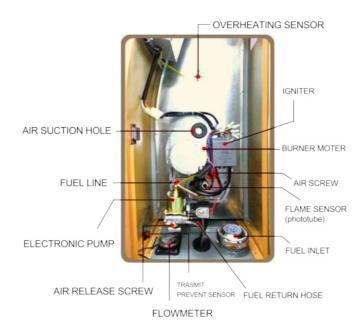
- Please check if now is operating in the time control operation? If so, the heater can be rest for 5min.
- Please check if now the setting temp, is less than the current temp.
- Please check if the heater is stop by pressing On/Off switch by remote controller or front controller.
- Please check if the heater is stop by sleep timer function.
- Please check if the heater is stop by auto-self-checking.

#### ► AIR FLOW-OUT

- In case that Electric pump so noisy and burner no ignition, main cause of the problem is air flow into the electric pump and not distribute oil. If oil is all consumed without remaining in the tank, air can be flow into inside electric pump.
- The method to flow-out air
  - Operate the heater
  - When the electric pump operated , turn on the air outflow screw to counter-clockwise. And you wait till air flow out and oil start to come out.
  - When you see oil start to come out, turn off the air outflow screw to clockwise (In case much air inside, please repeat same way 2~3times.)

#### ▶ DETAIL OF BURNER STRUCTURE

When you contact service person with a problem, please refer the below detail structure of the burner.



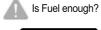
# TROUBLE SHOOTING

Please check the points below before you think trouble has occurred.



Is Power ON?









Is Flame sensor clean?



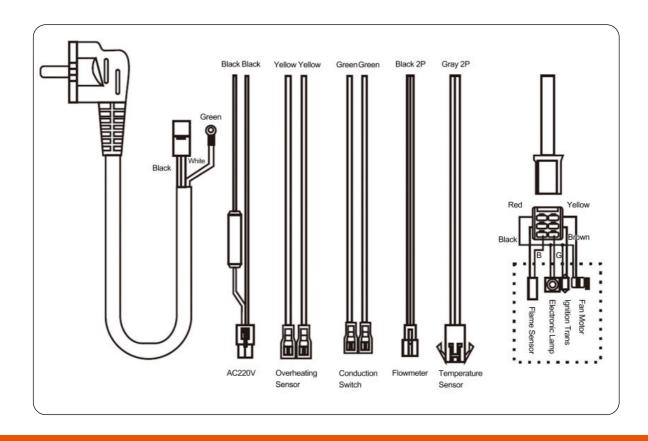
PROBLEM		CAUSE	SOLUTION	
	No power supply?		Check if the power supply is proper. (ex. 220/230Vac, 50Hz)	
NO Check that the power OPERATION plug is disconnected.			Plug the power plug into the outlet.	
	Is the fuse short?		Replace the fuse with a new one. (250Vac, 3.15A)	
	"Lack of Fuel" light on?	Lack of fuel	Fill it up with kerosene from the diesel. Do not mix or use these two different fuels.	
	Is the set temperature lower than the current temperature?		Set the temperature to be higher than the current (room) temperature.	
NO FAN MOTOR OPERATED	Is the misfire lamp on?	Air in the electric pump.	Remove the air from the electric pump. (Refer to page 13.)	
0	Is the overheating lamp on?	Under the operation of overheating prevention	Ventilate with fresh air in the room and turn off the heater for a while.	
	Can you see "E2" on the display?	Error on temperature sensor	Select timer control mode from temperature control mode.	
	Is the fuel filter stuffy?	Filter is contaminated.	Clean the filter with compressed air, or replace it with a new one.	
NO IGNITION ON THE BURNER	Is the air suction valve adjusted excessively or too small?		Call the after-sales service agent.	
	The voltage is low.	In cases of low voltage	The burner will not work properly, so use a booster to elevate the voltage. (A/S)	

# TROUBLE SHOOTING

PROBLEM		CAUSE	SOLUTION	
	"Lack of Fuel" light ON?	Running out of fuel	Fill up the fuel.	
IMMEDIATE STOP JUST AFTER	Check if the fuel if Diesel of kerosene	It may cause less performance & trouble	Drain the existing fuel and fill with Diesel of kerosene only.	
	Water of ant other impurities on fuel?	It may cause less performance & trouble	Replace the fuel with good quality one	
IGNITION	Is flame sensor located well?	In different position, it causes an error	Place the sensor in original location.	
Is flame sensor dirty?		Error because of soot of dirt	Call after sales service agent.	
	Noise in fuel pump?	Excessive air in the pump and nozzle.	Remove the air in the electric pump.	
	Check if the fuel if It may cause less Diesel of kerosene performance & trouble		Drain the existing fuel and fill with Diesel of kerosene only.	
Water of ant other impurities on fuel?		It may cause less performance & trouble	Replace the fuel with good quality one	
SOOT IS GENERATED	Is air suction valve adjusted excessively or too small?	Error on Temperature sensor	Call after sales service agent.	
	Is tube clogged?	Smoke may flow backward	Clean the tube by removing soot inside of tube, of replace with new one.	
NOISE IN	Is Fuel filter stuffy?	Dirty filter with impurities and contamination	Clean or replace with new one	
BURNER	Noise in fuel pump?	Excessive air in the pump and nozzle	Remove the air in the electric pump.	

# **SPECIFICATION**

Model	DHOE-90	DHOE-120	DHOE-150	DHOE-210	DHOE-250	DHOE-350
Fuel	Green Diesel	Green Diesel	Green Diesel	Green Diesel	Green Diesel	Green Diesel
Heating Output (kcal/h)	9,000	12,000	15,000	21,000	25,000	35,000
Fuel Consumption (ℓ/h)	1.0	1.2	1.5	2.1	2.3	3.8
Heating Area	36 ~ 53 m² (11~16PY)	55 ~ 88 m² (17~27PY)	66 ~ 133 m² (20~40PY)	135 ~ 237 m² (41~72PY)	166 ~ 265 m² (50~80PY)	231~330
Electric Power Consumption	50 W	50 W	50 W	65 W	110 W	120 W
Size (WxDxH)	740x320x1020	940x320x1020	1290x320x1020	1290x320x1190	1340x350x1420	1370x4000x1750
Weight	42 kg	45 kg	60 kg	63 kg	90 kg	116kg
Used	Heating	Heating	Heating	Heating	Heating	Heating
Power Supply	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz	AC220V/50Hz
Tank Capacity	28 ℓ	30 ℓ	45 ℓ	45 ℓ	80	90
Diameter of Somke Pipe (in case of Using)	90mm	100mm	100mm	100mm	100mm	100mm



## WARRANTY CARD

This **VELTRON** heater gives you more reliable performance, comfort, and durability the more you use it because it is produced under a strict quality assurance system, including various inspections during and after production, reliance tests, etc. In case you encounter any problems, please contact the local service agent or a distributor. If the problem occurs due to a production failure or a natural malfunction, we will offer you free repair service under our warranty clause.

#### **GENERAL**

- 1. The warranty period is months after the purchase date.
  - If the problem is caused by the mistake or misuse of the customer, we will charge a repair cost even if it is within the warranty period.
- 2. This warranty card is valid within your country.
- 3. Please keep this warranty card for better service in case of trouble.
- 4. Please contact your local distributor or after-sales service agent.
- 5. Please fill out this form after purchasing.

DESCRIPTION		
MODEL		
DATE OF PURCHASE		
WARRANTY PERIOD	( ) Months PRICE	
DISTRIBUTOR	NAME OF COMPANY	
BIOTRIBOTOR	TELEPHONE NO.	
	NAME	
CUSTOMER	ADDRESS	
	TELEPHONE NO.	

OFFICIAL REPRESENTATIVE IN THE EUROPEAN UNION AND SCANDINAVIA: Veltron International OÜ, Reg. No: 14338106 Phone: +372 5693 7082 E-mail: info@veltron-heaters.com; Address: Pärnu mnt 139e/11, 11317 Tallinn ESTONIA