




# Alde Compact 3030, 3030 Plus 1 zone/2 zone

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Certified for use in recreational vehicles

 Operating instructions Alde Compact 3030/3030 Plus





*Alde Compact 3030*



*Alde Compact 3030 Plus*

## **Alde Compact 3030, 3030 Plus, 1 zone, 2 zone**



Operating instructions Alde Compact 3030/3030 Plus

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## User safety information

Your safety and that of others is of the utmost importance. Always read and follow all safety instructions carefully.



**All safety information in the manual is marked with this symbol.**

All safety instructions are indicated by the safety symbol with the word “DANGER”, “WARNING”, “CAUTION” or “NOTICE”.

Word definitions:

**⚠ DANGER** An imminently dangerous situation that will result in death or serious personal injury.

**⚠ WARNING** A potentially dangerous situation which may result in death or serious injury and/or damage to property.

**⚠ CAUTION** A potentially dangerous situation that can lead to minor or moderate injury.

**NOTICE** Requires attention to follow a specific procedure or maintain a specific condition.

## Safety warnings

### **⚠ DANGER** Carbon monoxide poisoning

- The heating system can generate dangerous carbon monoxide (CO) when using LPG as fuel, if not correctly installed and/or used correctly.
- To avoid suffocation accidents, always use the system's LPG fuel outdoors to ensure exhaust gases are dispersed. Never use in a confined space, and never inhale exhaust gases.
- Ensure that the gas exhaust is placed outdoors, and never under the vehicle's awning or under a canopy, for example.
- Never use the system without adequate ventilation.
- Ensure that the air inlet and exhaust outlet are not blocked.
- Never allow water to enter the system when cleaning the vehicle. If using a high pressure washer for example, never spray directly into the system's exhaust outlet.

### **⚠ WARNING** Risk of fire or explosion

- Never use LPG to run the system when filling up or when filling a fixed LPG tank.
- Never use naked flame when checking for gas leaks.
- Always use original parts from Alde.
- LPG tanks must only be filled by qualified gas suppliers.
- Only use LPG.

**⚠ WARNING Hot water**

High water temperature above 49°C can cause serious scalding, and in extreme cases even death. The heating system can supply water at a temperature above 85°C.

- Always use a mixer tap set at a temperature that cannot exceed 48°C for safe operation.
- Always check the water temperature before using a shower or bathtub.
- Hot water can be dangerous, especially for babies, children, the elderly and the sick.

**How long can the skin be exposed to hot water?**

Temperature °C	Time before skin injuries occur	
70	Extreme danger!	< 1 second
66	Very dangerous!	1-5 seconds
60	Danger!	< 10 seconds
54		< 30 seconds
52	Warning!	2 minutes
49		5–10 minutes
38	Safe	Safe bathing temperature

Source: Moritz, A.R./Herriques, F.C.: *Studies of thermal injuries: the relative importance of time and surface temperature in causation of Cutaneous burns* A. J. Pathol 1947; 23: 695–720.

- Before using the hot water tap or shower, let the water run until the temperature is safe and stabilised.
- Check the water temperature before letting a child use the bathtub or shower.
- Never allow a child or a disabled person to bathe unattended.

**⚠ WARNING**

Hot water from the boiler is not intended for drinking or use in food preparation.

**⚠ WARNING**

Always drain freshwater from the boiler during extended layups or when there is a risk of frost to prevent the boiler from freezing. The warranty does not cover damage caused by freezing.

**⚠ CAUTION**

- Damage to the heating system may void your warranty.
- Do not make any modifications. Any modifications made to the system or its controls may cause unforeseen serious risks, and void your warranty.

**NOTICE**

The output temperature from the system and the temperature in the tap can differ, depending on water conditions and length of pipe to the heating system.

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**⚠ WARNING**

Always read and follow these instructions before installing and/or using the system.

Take extra care when children are present. Children must not be allowed to play with the product, and must not take part in cleaning or maintenance.

## 1. Intended use

The Alde Compact 3030/3030 Plus heating system is intended for heating of recreational vehicles, using a single zone / dual zone system to set one or two different temperatures in the vehicle. Alde Compact 3030/3030 Plus heating systems each consist of a gas/electric boiler and convectors. The system supplies the convectors with heat by circulating a glycol mixture, which is heated up using gas and/or electricity in the boiler.

These instructions explain how to use the Alde Compact 3030/3030 Plus heating systems and control panels in recreational vehicles.

Installation and repairs must only be performed by an Alde Service Partner.

The product is only for use in recreational vehicles.

## 2. Safety instructions

The system is fitted with the following safety devices:

### **Flame monitor**

If the gas flame is extinguished, a flame sensor shuts off the gas supply.

### **Low current shut-off**

If the current drops below 10.5 V DC, the gas supply to the burner is shut off.

### **Exhaust fan monitor**

In the event of a faulty exhaust fan, the gas supply to the system is shut off.

### **Monitoring boiler temperature**

A temperature switch turns the boiler off if the temperature in the boiler exceeds 90°C.

### 3. Important information

#### **WARNING** Risk of fire or explosion

- Never use LPG to run the system when filling up or when filling a fixed LPG tank.
- Never use naked flame when checking for gas leaks.
- Always use original parts from Alde.
- LPG tanks must only be filled by qualified gas suppliers.
- Only use LPG.

#### **WARNING**

Close the main LPG tap in the following circumstances:

- In the event of suspected leakage in the LPG system.
- When the vehicle is not in use.
- Depending on national legislation, the LPG main tap shall be closed while the vehicle is in service.

#### 3.1. Use of the heating system

- Always turn off the main switch (12 V) of the heating system when the vehicle is not in use.
- The LPG burner must not be running when refuelling the vehicle or when filling a solid LPG tank.

#### 3.2 Winter and sub-zero temperatures

#### **WARNING** Asphyxiation hazard

For proper and safe combustion, the LPG burner in the heating system must have sufficient air intake. Insufficient air intake can cause build-up of carbon monoxide which presents an asphyxiation hazard. The induction air for the gas burner enters via the flue, which is usually installed on the side of the vehicle near the boiler. While winter camping, make sure that the flue is kept free of snow and ice.

Do not start the heating system on LPG before the flue is completely free of snow and ice.

#### **WARNING**

The fresh water in the heater must always be drained in case of frost or if the vehicle is not in use, otherwise there is a risk that the boiler will freeze. The warranty does not cover damage due to freezing.

- During winter camping, make sure that the flue and exhaust valves are kept free of ice and snow. There is a flue extension for the roof flue (part number 3000320). There is a condensation diverter for the wall flue (part number 3010697). Note that flue extensions and condensation conductors must not be used while travelling.



### 3.3 The Glycol fluid in the heating system

- Never leave the heating system without glycol mixture.
- Always maintain the correct amount of glycol mixture in the heating system.
- The glycol mixture should be replaced every two years, or as recommended by manufacturers, as properties such as corrosion protection deteriorate over time. If the glycol fluid is not replaced at appropriate intervals, there is a risk of frost damage, corrosion, bacterial growth and/or overheating. If Alde Premium Antifreeze is used, the replacement period can be extended to max. 5 years of normal use.
- Air pockets can form in the system; a sign of the formation of air pockets is that the pipes only heat up along the first 1-2 metres proximal to the boiler, even though the circulation pump is running. For more information on aeration of the heating system, see **section 8.4 Bleeding of the heating system**.

### 3.4. External factors that may affect the heating system

- Cleaning fluids for the water system should be used with care as they may cause corrosion of the stainless steel parts of the heating system. Make sure that the detergent you are using works for stainless steel systems. Rinse the system thoroughly before using the heating system again.
- Take note of hard water. Hard water is water that has high levels of minerals, chlorine, lime, and salt. If the boiler is being used in a region with hard water, install a water filter. Hard water can cause lime deposits that may cause impaired function and rust formation.
- When washing the vehicle, do not rinse the flue directly. This can cause poor operation as well as soot formation.

### 3.5 Convection

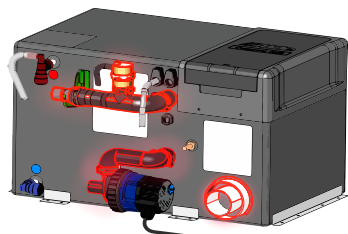
To make the most efficient use of waterborne heating, air must pass freely through air gaps under the bed boxes, behind the backrests/cushions and wall cabinets. If the vehicle has e.g. fitted carpets, check that they do not prevent air supply to the convectors. It is also important that curtains, cushions and blankets do not prevent air circulation behind seatback cushions and wall cabinets; see Fig. 1.



Fig. 1. Convection

#### **⚠ CAUTION** Hot surfaces

Always pay attention to hot surfaces marked red when the heating system is in operation.



Alde Compact Boiler 3030/3030 Plus

## 4. Initial operation of the heating system

### **⚠ CAUTION**

Never use the system while under the influence of alcohol, drugs or medicines, and always carefully follow the safety instructions.

#### 4.1. Pre-operation check of the heating system

- Check that the glycol mixture is at the right level in the system's expansion vessel; see Fig. 2. The level should be about one centimetre above the MIN mark in cold systems. Ensure that the system is properly ventilated before putting it into use.
- Check that the chimney is kept free of ice and snow, as induction air enters the boiler via the flue when run on LPG. Also check that no other objects block or interfere with exhaust gases and supply air at the chimney.
- Check air circulation. To get the full effect of the waterborne heating, it is important that the air can pass freely under bed boxes and behind back cushions and wall cabinets. If the vehicle has fitted carpets, check that they do not prevent air supply to the convectors. It is also important that curtains, cushions and blankets do not prevent air circulation behind seatback cushions.



*Fig. 2. Expansion vessel*

## 4.2. Using the water heater

The Alde Compact 3030/3030 Plus heating system has a built-in hot water heater.

Vehicle heating can take place without the water heater being filled with water.

The water heater can also be used without heat circulating in the vehicle. Set the desired room temperature; if you want hot water on or extra hot water, the heating system handles this function automatically.

### **WARNING** Scalding hazard

Remember, the water in the water heater may be very hot.

### **WARNING** Freezing risk

Always drain freshwater from the boiler when there is a risk of frost to prevent the boiler from freezing and glycol from entering the hot water tank. The warranty does not cover damage caused by freezing.

### **WARNING**

Hot water from the boiler is not intended for drinking or use in food preparation.

### **CAUTION**











Avoid using the Boost and Autoboot functions in your Alde Compact 3030 Plus when the water heater is empty. The water heater must always be full of water when using Autoboot.

### **Procedure:**

1. Make sure that the vehicle water tank is filled with clean and uncontaminated water, or that it is connected to water.
2. Fill the hot water tank in the heating system with water from the vehicle's water tank by opening any tap and setting it to run hot, then flush until water flows freely.  
When the heating system is used for the first time, or if the system has not been used for an extended period, open any hot water tap in the vehicle and allow around 12 litres run out through the tap.
3. Close all taps and start the heating system.

## 5. Starting the heating system for the first time

1. Start the heating system by pressing the On/Off button on the control panel (Fig. 3, item 1).  
When the heating system and control panel are on, a green diode lights up on the On/Off button.
2. Select language.
3. Press the Configure button to go to System Configuration. You can always reach this menu by pressing the MENU button on the Alde Control Panel and scrolling until the System Configuration option arrives.
4. If you have a dual zone system, go to the second page in System Configuration and select 2-zone mode.

The relevant accessory is highlighted if connected:	
 Pump, 12 V pump. Select Manual if there is a selector on the pump, otherwise PWM.	 DuoControl, Bottle Switch.
 Booster fan.	 EisEx (Defroster).
 Underfloor heating, 12 V pump for under-floor heating.	 Alde AquaClear UV-C.
 Engine pre-heat. Heat the engine using the Alde heating system.	 Remote Control (Ex. Alde Voice Control, Alde Smart Control).
 Extra hot water tank/Alde Flow, for increased hot water capacity and continuous hot water. (Not 3030 Plus)	 2-Zone mode (if you have two temperature zones installed).

5.

### Single-zone system

- Browse through system configuration, activate any accessories/functions fitted using their respective menus. (Fig. 3)
- Go back using the Back arrow in the top left corner, and select Done.
- To change the desired indoor temperature from the status screen, press the menu button multiple times until you reach the temperature setting menu and set the temperature there. (Fig. 4)  
Raise or lower the temperature using the plus and minus buttons.



Fig. 3. single zone



Fig. 4. single zone

## Dual zone system

- If unsure of the zone's name, blow on the sensor in the zone and then look on the control panel for a zone whose temperature has changed (for example Bedroom), and then select whether a booster is installed in the zone.
  - If unsure of the zone's name, blow on the sensor in the zone and then look on the control panel for a zone whose temperature has changed.
  - Activate the other accessories/functions installed via their respective menus.
  - Go back using the Back arrow in the left corner, and select Done.
  - To change the indoor temperature from the status screen, press the respective zone icons, e.g. "Living room" or "Bedroom". Raise or lower the temperature using the plus and minus buttons. (Fig. 7).
6. Set the time and day by touching the time icon top right of the status screen.
  7. Press the Energy icon on the status screen (Fig. 7) to select operating mode (gas and/or electricity). Regardless of the energy choice, the boiler will not use more energy than it needs, so select the highest setting possible.



Fig. 5. dual zone



Fig. 6. dual zone



Fig. 7. dual zone

## 6. Review of Alde Control Panel

### 6.1. Switching the boiler on and off

To start the boiler, press the control panel On/Off button (Fig. 8, image 1). The start icon appears (Fig. 8, figure 2) and the system starts with the last selected settings. When the heating system and control panel are on, a green diode lights up on the On/Off button. To turn off the heating system, press the on/off button. The control panel and LED will go out.



1. System switched off, LED out

2. System starting, LED lit

Fig. 8. Control Panel

#### NOTICE

If the status page is set to Dark, the control panel will go dark 30 seconds after it enters sleep mode, but will come on again when the screen is touched. **Read more under section 6.6. Settings menu.**

### 6.2 Status screen

When the control panel is in sleep mode, the status screen is shown. Press the relevant status screen icon to reach its sub menu. Press the MENU button to reach the settings menu. Features marked with asterisks (\*) are accessories.

#### Icon description for the status screen's top row (Figs.9a, b)

	Operating messages. Displayed if temporary service interruption occurs; this is not an error. Await. Read more in <b>section 9.2 Operating messages</b> .
	Information. Flashes when there is an information message.
	230 V. Electricity (230 V) is connected to the boiler.
	Day Mode. Shows when the function is activated, and turns green when it is automatically switched on.
	Night Mode. Shows when the function is activated, and turns green when it is switched on automatically later.
	LPG bottle full/empty*. Appears if a DuoControl is installed. Black bottle = LPG available. Red bottle = LPG bottle empty.
	EisEx*. Shows when EisEx is activated, and turns green when it is automatically switched on.
	Engine heating*. Shows when engine heating is activated, and turns green when it is automatically switched on.
	Anti-bacteria. The boiler's automatic bacterial elimination setting is running.
	High altitude mode. Flashes if high altitude mode is activated.
	Alde AquaClear UV-C*. Shows when the fresh water pump is running and the water filter is functioning.



Fig. 9a.  
Status screen,  
single-zone system



Fig. 9b.  
Status screen,  
single-zone system

Footnote. Features marked with star (\*) are accessories.

### Icon description for the status screen's main menu (Figs. 10a, b)



Single zone system. Indoor temperature. Displays the current temperature and whether the circulation pump is active (○). Tap the icon to change the desired temperature.

Dual zone system. Zone icons. Displays the current temperature and whether the circulation pump is active in the zone (○). Tap the icon to change the desired temperature.



Light\*. Start, turn off, or dim the AC lighting (only with Truma AC).



Energy. Shows the energy source used; the flame turns red when gas is in use, and the flash turns yellow when electricity is in use. Tap the icon to select and prioritise energy source, and to set load monitor\* and high altitude mode.



Hot water. Shows if hot water production is set to off, on or boost. The thermometer is fully coloured-in when hot water reaches boost temperature. Press the icon to select hot water mode, (off, on, boost or auto (3030 PLUS)). Read more in **section 6.4 Hot water**.



Outdoor temperature\*. If an outdoor sensor is installed, the current outdoor temperature is displayed.



Fig. 10a.  
Main menus on  
the status screen,  
single-zone system



Fig. 10b.  
Main menus on  
the status screen,  
dual-zone system

### 6.3 Set the desired temperature

The temperature can be set from +5°C to +30°C in increments of 0.5°C.

For 1 zone, set the temperature by pressing directly on the plus and minus buttons.

For 2 zones, press the icon for the zone you wish to set the temperature in.

The temperature is shown (Fig. 11) is the current temperature setting.

To leave the menu, tap the menu button.

### 6.4 Hot water

#### **⚠ WARNING Scalding hazard**

When the hot water and glycol mixture in the boiler are heated at the same time, the hot water can become very hot in the event of a significant heating requirement.

The boiler has a built-in hot water heater with a volume of around 10 litres. The boiler can be used even without fresh water being in the heater. There are three different hot water settings: no hot water, normal operation and boost (priority hot water); the 3030 Plus also has Auto mode. (Fig. 12a, b)

- Off - Hot water off. The hot water may still be hot if there is a heating requirement in the vehicle.
- On - Hot water switched on.
- Boost - Priority hot water production. The boiler will now prioritise the production of hot water for 30 minutes. When 30 minutes have passed, the boiler returns to its previous setting. Prioritised hot water production is recommended for increased hot water demand.
- Auto - Hot water switched on and goes automatically to Boost as required. Auto is only available in 3030 Plus. When switching from Off to Auto there is a certain additional warm-up period before the Boost function kicks in. Autoboot requires an electrical output of 3 kW to function. If only 1 or 2 kW are available, gas must also be activated.



Fig. 11. Set  
temperature



Fig. 12a. Set hot  
water production,  
Alde Compact 3030



Fig. 12b. Set hot  
water production,  
Alde Compact 3030 Plus

## 6.5 Energy sources

The boiler can be powered either by gas or electricity, or both at the same time. When the boiler approaches the set temperature, energy consumption is gradually reduced. Press Energy to reach energy settings. There are two pages for setting energy; they can be reached either by pressing the numerals in the top right corner (see Fig. 13) or by scrolling up or down.



Fig. 13. Choice of energy sources

### Warming up with electricity ⚡

The menu selection is max permissible consumption, i.e. the boiler will not use more power than necessary, even if e.g. 3 kW is selected in the control panel.

### Warming up with gas 🔥

Press the control on the gas menu line to start and stop gas operation. (See Fig.13)

### Priority ⚖️

It is also possible to prioritise the energy source. When both gas and electricity are switched on, select the priority energy source. If the priority energy source is insufficient, both will be activated.

### Load monitor\* ⚙️

To avoid tripping the 230 V circuit breaker when the vehicle is connected to an electricity pole, use the load monitor. Set the voltage to the same voltage as the electrical pole's circuit breaker. Always set the power to 3 kW on the panel. If a load monitor is installed, power on the panel need not be changed when the vehicle is connected to a new electricity pole; only change the load monitor value. The boiler and Truma AC connected to the Alde system will automatically reduce their consumption when e.g. a toaster or hairdryer is switched on.

### High altitude mode 🏔️


Only use high-altitude mode if the boiler will be run on LPG at altitudes above 1000 metres amsl. For high-altitude LPG operation, use propane to ensure stable combustion. Varied operating conditions at high altitudes may cause the boiler to not always reach full gas operation. Press the control on the High-altitude mode menu row to adapt gas operation accordingly. (Fig.13)


## 6.6 Settings menu

To reach the Settings menu from the sleep/standby screen, press the MENU button.

The Settings menu provides the following features:

### Settings menu, Fig. 14

 Night Mode. Automatically changes select features during the night. Choose the time interval and whether it should be done every night or a specific night each week. The following can be changed: temperature, status screen light, putting AC\* into night operation and changing AC sensors, turning off hot water production, and underfloor heating\*.

 Day Mode. Automatically changes select features throughout the day. Choose the time interval and whether it should be done every night or a specific night each week. The following can be changed: temperature and hot water production.


 AC\* (Truma only). Start or turn off automatic climate setting (=AC and the heating system work together); for dual-zone installation, choose which zone the AC should follow.



Fig. 14. Settings menu

Footnote. Features marked with star (\*) are accessories.



### Settings menu, Fig. 14



Underfloor heating\*, Underfloor heating. Turn the underfloor heating on or off. Select continuous operation of the underfloor heating by activating "Continuous".



Engine pre-heat\*. Heat the engine using the Alde heating system. Start or turn off the function, select the start time and the engine heating duration.

### Settings menu, Fig. 15



Pump in constant operation.  
(Only Alde Compact 3030/3030 Plus 1-zone system)



EisEx, defroster for gas regulator. Prevents ice formation in the regulator during winter. Select on or off, and select whether EisEx should automatically turn on when it is cold. Automatic switch-on requires an outdoor sensor to be installed.



Delayed start, automatic boiler start.  
Start or turn off the feature, select start and end time. For the function to work, the boiler must be switched off.



External start. The function is used when starting the boiler from outside. When external startup is enabled, the panel should be turned off. External start has three modes: Off, External start and 230 V. Off. The function is turned off.

External start\*. The function is used when starting the boiler with external start, by switching the "Ext Start" connector on the boiler's circuit board. When the External Start function is activated, the control panel should be turned off but 12 V is connected.

230 V. The function is used to start the boiler by connecting 230 V to the vehicle. When the 230 V function is activated, the control panel should be switched off but 12 V connected. Some vehicles may be equipped with their own solution (winter coupling\*).



Temp sensor calib, offset for temperature sensor. The temperature can be adjusted  $\pm 5$  °C if you feel the temperature sensor needs adjusting. Also applies to outdoor temperature sensor.

### Settings menu, Fig. 16



Display. Select panel brightness: Low, Medium, or High. You can also choose whether the status screen should be Normal, Inverted, or Dark. If Dark is selected, the panel will go dark after 30 seconds and will light up again if touched.



Sound. Start or turn off button and warning/notification sounds.



Language. Change the language in the Control Panel menus; available languages are: English, German, and French.



Service. Displays values from the heating system; these are updated continuously and describe the current status of the boiler. See **section 11 Service Menu & Reset**.



System configuration, enable installed accessories and features. Here, you will find all accessories or functions that can be connected to the Alde Heating System; tick the features that are installed in the heating system to enable their use.



Reset. Resets the panel to factory setting. The accessories/features selected under System Configuration are not affected.



Fig. 15.  
Settings menu



Fig. 16.  
Settings menu

## 7. How your smart Alde Compact 3030/3030 Plus works

Alde Compact 3030 and 3030 Plus are systems used to control the temperature in the vehicle (single-zone system). You can also control the temperature separately in two different zones. A factory-installed dual-zone system is required to control the temperature in two zones.

### Alde's intelligent climate technology

With Alde's intelligent climate technology you automatically get soft and efficient temperature transitions; the boiler calculates whether or not it needs to raise the power level to reach the selected temperature. This is to avoid unnecessary energy being consumed and to ensure that the prioritised energy source is always used in first instance, unless there is an actual need to activate both electricity and gas. The boiler never uses more power than necessary.

Apart from normal temp settings, Alde's smart system also includes, Night Mode and Day Mode features which give you the ability to increase comfort by automating changes in temperature and turning selected functions on/off during the night and day, respectively.

If you also have an AC from Truma installed and connected with your Alde system, and an outdoor temperature sensor from Alde, you get access to additional functionality in Alde's intelligent climate technology. The AC is then controlled from the same sensor as your Alde Heating System and can be controlled by the same smart Alde technology. If your Truma AC also has a heating function, this also helps heat a cold vehicle more quickly if required.

#### CAUTION

Only install specially adapted hoses and gaskets approved for use with LPG. The use of other types of hoses can lead to hose breakage and leakage. Hoses and gaskets must be replaced in accordance with national regulations and by a trained professional.

#### NOTICE

Have the LPG system checked regularly, preferably once a year, to ensure that couplings and hoses are tightly fitted.

## 8. Care and maintenance

LPG hoses should be replaced according to the date marking of the hose when they dry out and crack, resulting in possible leakage. For extra safety, we recommend using Alde's Type 4071 leak tester, installed as closely to the reduction valve as possible.

- Turn off the main power supply (12 V) to the heating system when not in use.  
The main power supply shall always be switched off when the vehicle is not in use.
- Close the tap on the LPG bottle/tank.

### 8.1 Replacement of the air cushion

The heating system is designed to have air space, a so-called air cushion, at the top of the hot water tank. The air cushion is absolutely necessary to enable the expansion of the water when heated, but also to absorb any pressure shocks caused by the water pump in the heating system. Always replace the air cushion in the heating system after 10 days of use. Do this by opening the heating system safety / drain valve for a few seconds (Fig. 17 or fig. 18, depending on the valve fitted to the vehicle).

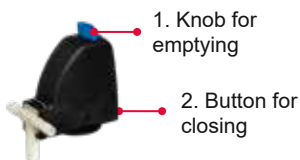


Fig. 17. Safety valve / drain valve



Fig. 18. Safety valve / drain valve

### 8.2. Emptying of water heaters and water pipes

#### **⚠ WARNING** Scalding hazard

Remember, the water in the water heater may be hot.

#### **NOTICE**

Check that the automatic non-return valve opens and lets air into the boiler when draining, and check that the hose is not clogged.



1. Switch off the fresh water pump.
2. Open all water taps to the central position so that both hot and cold water run out.
3. Then open all safety/drain valves by turning the blue handle through 90° (fig. 17, item 1); alternatively, move the yellow handle into a vertical position (fig 18).
4. Make sure all water runs out (approx 7-10 litres). Allow the valves to remain open until the heater is used again.
5. Reset all safety/drain valves by closing the handle again and pressing in the blue button on the side. (fig. 17, item 2)

When emptying other water systems in the vehicle, refer to the manufacturer's instructions for use.

**⚠️ WARNING Poisoning**

Be sure to thoroughly dry any puddles of leaked glycol or glycol fluid. Rinse the area with water and dry up the excess to prevent children or pets from ingesting glycol.

**⚠️ CAUTION**

The heating system comes with glycol mixture within. If the fluid level is too low, the system must be filled up to the correct level before using the heating system. The warranty can be voided and the heating system may be damaged upon start-up with too little or no glycol mixture.

**NOTICE**

Do not mix different types of glycol, as this can cause coagulation of the glycol mixture.

### 8.3 Glycol fluid

The system must be filled with a mixture of deionised water and glycol.

We recommend using a high quality premixed glycol (with inhibitors) intended for aluminium heating systems. When using concentrated glycol, the mixture must consist of 60% distilled water, or water with no salt content, and 40% glycol. The use of tap water may cause corrosion and affect the warranty.

If the system is exposed to temperatures lower than  $-25^{\circ}\text{C}$ , glycol content must be increased, but must not exceed 50%.

**NOTICE**

If the glycol fluid is not replaced at appropriate intervals, there is a risk of frost damage, corrosion, bacterial growth and/or overheating.

The glycol mixture must be changed every two years, as properties such as corrosion protection degrade. If Alde Premium Antifreeze is used, the replacement period can be extended to max. 5 years of normal use.

#### 8.3.1 Refill the heating system with Glycol fluid

Glycol content should be checked at the expansion vessel using a glycol tester before refill, to ensure that the concentration of glycol in the fluid is not too high. If the fluid level has dropped for reasons other than evaporation, check all joints, rubber hoses, drain taps and air screws for leakage before filling.

The glycol system is manually replenished in the expansion vessel. When manually filling, slowly pour the glycol mixture into the expansion vessel. The level must be approx. 1 cm above the MIN line (Fig. 19) when the system is cold.

Vent both zones in a dual-zone system after filling; add more glycol mixture if the glycol level drops during venting.

Vent a newly-filled heating system regularly.

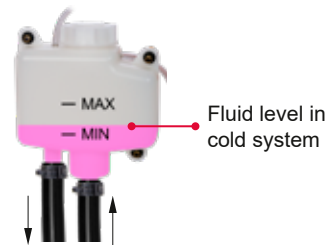


Fig.19. Expansion vessel

## 8.4 Bleeding of the heating system

When filling glycol mixture into the system, air pockets may form, depending on how the piping system is installed. A sign of air in the system is that only the first few metres of the pipes extending from the boiler heat up, even though the circulation pump is running.

In the case of a newly filled heating system, small air bubbles may form in the expansion vessel resulting in rippling noise. If the circulation pump is stopped for a few seconds, the bubbles usually disappear. If the problem persists, bleed the heating system.

### **WARNING** Scalding hazard

Remember: the glycol mixture can be very hot.

### **NOTICE**

Never open the air screws while the pump is running, as this would draw air into the system.

### Vent as follows

1. Boiler must be switched off.
2. If the boiler is equipped with a vent screw on the output pipe: open the screw and leave it open until fluid comes out. Proceed to item 4.
3. If the boiler is fitted with automatic vents, venting will be performed automatically. Start the boiler and let the fluid circulate in the system until it is vented. Top up with fluid if necessary in accordance with item 5. If this does not help, turn off the boiler and go to item 4.
4. Open the other bleed screws in the system one by one. Leave them open until glycol mixture comes out of them, then close them.
5. Check the fluid level in the expansion vessel. Top up if the level has dropped after ventilation. The fluid level in the expansion tank must lie 1 cm above the min. line (Fig. 19) when the system is cold.
6. Start the boiler and allow to run for a while. Feel whether the pipes and convectors around the vehicle are getting warm. If they are hot, venting is complete, otherwise proceed to point 7.
7. Put the pump (pumps in a dual-zone system), in speed position 5. Turn off electricity and gas. Set the heat to 30 °C and let the boiler run for 5 minutes. Next ,begin again at item 1.

### Measures for residual air bubbles, single axle caravan

#### **NOTICE** Overheating

- Check that the system is properly ventilated.
- Never use full electricity or gas capacity until the system is properly ventilated.

1. Stop the circulation pump.
2. Lower the front of the caravan as far as possible. Let it stand for a few minutes, so that the air can move upwards in the heating system.
3. Open the air screw at the highest point. Leave it open until glycol mixture runs out.
4. Raise the front of the caravan as far as possible and repeat steps 3.
5. Place the caravan in a horizontal position and start the circulation pump.
6. Check that the pipes and convectors around the vehicle are heating up.

### Measures for residual air bubbles, bogie trailers and motorhomes

It is easiest to air the heating system with the vehicle on a sloping surface, or with one end of the vehicle suspended by a jack. Air the heating system on a slope as described for the single-axle caravan above. Alternatively, the heating system can be aerated with a filling pump at a workshop; contact Alde Service Partner.

## 9. Error messages

When an error message appears on the Control panel, the LED on the On/Off button changes to red.

**Connector failure:** Check the red cable between the boiler and the panel and its red connectors. Also check cables connected to the black connector of the boiler, e.g. cable between AC or iNet box and boiler or panel.

**Heater not found:** There is a connection fault between the boiler and the control panel. Most likely a problem with the boiler circuit board; contact your dealer. The fault may also be due to incompatible software in the boiler and panel.

**Overheat glycol:** This fault can occur if the boiler is running at high power while there are air pockets in the system; ventilate the heating system properly. Also check that the fluid level in the expansion vessel is at least 1 cm above the MIN mark when the fluid is cold. It can also occur if the circulation pump has broken or is disconnected from the boiler. To restore the fault, the glycol temperature must drop to below 50°C. Once this happens, remove, then reconnect 12 V to the boiler.

**Overheat lockout:** There has been an episode of overheating in the boiler. The temperature has gone down but the boiler is still locked. To reset the fault, disconnect, then reconnect, 12 V to the boiler.

**Overheat PCB:** Overheating in the boiler or boiler compartment. To reset the error, the temperature in the pan must first drop. Disconnect, then reconnect 12 V to the boiler. If this does not help, contact Alde Service Partner.

**Heater failure:** The circuit board is damaged. To reset the fault, disconnect, then reconnect 12 V to the boiler. If the error persists, contact Alde Service Partner.

**Low battery voltage:** If the vehicle's battery voltage to the boiler is less than 10.8 V, the boiler stops. This resets automatically when the voltage reaches 11 V. If the voltage is lower, other error messages may also appear. These error messages occur only because the battery voltage is/has been too low and are therefore not true malfunctions. Ensure that the boiler gets the right voltage for the right function.

**Gas failure:** Ensure that gas is available to the boiler. To reset the fault, disconnect and reconnect the 12 V supply to the boiler. When the supply is reconnected, gas operation must be reactivated in the control panel. The fault may also be due to a defective spark generator and/or burner; contact Alde Service Partner if the fault persists.

**Fan failure:** The combustion fan is defective. Contact Alde Service Partner.

**Window open:** A window switch indicates that a window near the wall flue is open, the boiler stops running on gas. Gas operation restarts when the window is closed. Electric operation still works.

**Panel failure:** May occur if the panel has been exposed to high humidity for a long time. Make sure the panel is dried, then restart. If the error persists, contact Alde Service Partner.

**Opt. dongle not found:** A previously identified option card is missing from the boiler. Make sure it is connected or uninstall the accessories that require it. In order for the system to find the option card again, disconnect 12 V from the boiler, plug in the option card, and then reconnect 12 V. If the error persists, contact Alde Service Partner.

**Load monitor not found:** A previously identified load monitor is missing from the boiler. It is either disconnected or defective. Make sure that the load monitor is plugged in; if the fault persists even though the load monitor is plugged in, contact Alde Service Partner.

**Zone 1 sensor error/ Zone 2 sensor error:** The room sensor in zone 1 or zone 2, e.g. by sofa or bed, is disconnected or defective. Check that the sensor is plugged in and that neither the sensor nor the cable is defective. If the error persists, contact Alde Service Partner.

**Hot water sensor error:** The hot water sensor is disconnected or defective. If the error persists, contact Alde Service Partner. The boiler continues to work but does not actively produce hot water; however, the water can still get hot if the boiler produces heat.

**Outdoor sensor error:** The outdoor temperature sensor is disconnected or defective. If it has been disconnected, please press the "dismiss" button in the control panel.

**CI-bus error:** High communication load on the yellow connector of the control panel. Check the cable, couplings, and your vehicle's master panel. If the error persists, contact Alde Service Partner.

**iNet Connection error:** the iNet box is disconnected or defective. If it has been disconnected, please press the "dismiss" button in the control panel.

**Remote Control error:** Remote control connected to the JP3 connector on the back of the Control Panel is disconnected or defective. Check cable and couplings. If it has been disconnected, press the "uninstall" button on the control panel.

### 9.1 If a fault persists

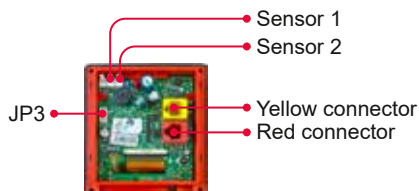
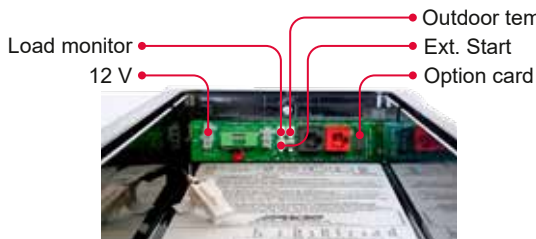


Fig. 20. Couplings on the boiler circuit board

Fig. 21. Connectors on the control panel

Disconnect 12 V from the boiler by disconnecting the cable that supplies the boiler from the boiler circuit board. This cable is located at the top left of the circuit board. Reconnect 12 V by reconnecting the cable.

If a fault persists even after disconnecting and reconnecting 12 V to the boiler, please also disconnect 230 V and then 12 V again. Reconnect 230 V and 12 V. If this doesn't help, contact your dealer or Alde Service Partner.

### 9.2. Operating messages

An operating message is not a fault but a temporary service interruption. If an error occurs, an error message will appear on the screen.

#### Fan restarts...:

The combustion fan did not reach sufficient speed. A new start attempt will be made within a few minutes. This is not a fault. If "Fan failure" appears after several "Fan restarts...", then a fault has occurred. Please wait for as long as "Fan restarts..." appears.

#### Full gas power unavailable:

The combustion fan did not reach sufficient speed for full gas operation. This can occur if "High Altitude Mode" is turned on; read more about this feature in **section 6.5 Energy sources**.

If the message arrives without High Altitude Mode being turned on and the error persists, contact Alde Service Partner.

## 10. Troubleshooting

Always start by checking any error messages. When an error occurs in the system, the cause is shown on the control panel. They are only shown when the panel's status screen is active.

### Boiler will not start on gas (Gas Failure)

#### **NOTICE**

If the heating system has not been in operation for a long time, or if the gas tank has been replaced, it may take longer than normal to start the boiler.

- Run out of LPG?
- Is the main tap fully open?
- Check that the right LPG type is used for the prevalent outdoor temperature. Using butane at temperatures below +10 °C is unsuitable. Use propane instead.
- Check that the 12 V fuse for the boiler is intact.
- Check that there is a 12 V electricity supply to the boiler (> 11 V); the actual voltage can be read from the service menu.
- Check that the exhaust hose is firmly mounted between the boiler and flue, and that it is not damaged or clogged by foreign objects, condensation or water. The exhaust hose consists of two hoses, one inner and one outer.
- Check that there is nothing clogging/obstructing the passage of exhaust to the flue.
- Check that the gas pressure is correct. This can be done by lighting all the burners on the gas stove, then starting the boiler on gas. If the flames on the stove get smaller, there is a problem with the gas pressure.
- If the boiler has not been used for some time, or if the gas bottle is new, it can take a little longer to light the boiler than normal. Try restarting the boiler.
- If DuoControl/MonoControl with Crash sensor are installed, check that they have not tripped.

If none of the above help, contact Alde Service Partner.

### Electric heater will not work satisfactorily

#### **⚠ WARNING Fire/explosion risk**

A 230 V power supply carries a risk of electrical accidents. Never attempt to service electrical cartridges yourself.

- Check that the fuse for the boiler is intact.
- Check that there is a 12 V electricity supply to the boiler (> 11 V); the actual voltage can be read from the service menu.
- Check that 230 V is truly being supplied to the boiler. Long and/or weak connection cables cause higher voltage drops. The voltage may also be lower under certain conditions, e.g. if the power pole at the campsite delivers less than 230 V voltage; even a slight deviation from 230 V results in high power loss of the boiler.
- Check that the selected power level on the panel is high enough, see section **6.5 Energy sources**.
- If fitted, check that the load monitor (option) is properly installed and set to a voltage equivalent to the electrical pole's circuit breaker.

If none of the above help, contact Alde Service Partner.

### Poor or no heat (circulation in the system)

- Check that the circulation pump symbol is visible on the status screen when heating is needed.
- Check that the circulation pumps are working.
- Check that the heating system is ventilated.



**Automatic climate control is not working satisfactorily**

- There are two heating zones in a dual-zone system, but only one zone for cooling. In this case, set the AC to follow the thermostat in one of the zones. When the AC-controlled zone indicates a need for cooling, heating will be switched off in the other zone. This is to avoid unnecessary energy consumption.

Ensure that the zone selected to control the AC reacts effectively to room temperature for high and low temperatures. If the AC will not cool due to low outdoor temperature, the outdoor sensor can be temporarily disconnected to test the AC.

- Fitting an outdoor temperature sensor (part number 3010299) improves climate technology, but note that if the outdoor temperature is too low, the AC will not run.

Note that in or out of night mode and day mode, the system will wait to see if there is a need to switch from cooling to heating or vice versa. This is to avoid unnecessarily large temperature variations in the vehicle.

**11. Service menu & resetting**

Tap Service Information to reach the service menu (Fig. 22).

The values from the heating system are shown here (see Fig. 23); the values are updated continuously.

**Reset**

Tap Reset (Fig. 22) to reset the Control Panel to factory settings. After resetting, the system will be set as follows:

- Heater - Off mode/ Boiler - Off
- Max. electricity - 1 kW/ Max. electricity - 1 kW
- Gas heating - On mode
- Target temperatures - 22.0 °C/ Temperature setting - 22.0 °C
- Hot water - In normal mode

All other functions will be switched off. The accessories/functions selected under ""System configuration"" are not affected by resetting.



Reset



Service, page 1



Service, page 2

Fig. 22. Control Panel menus

Fig. 23. Service Information

## 12. Technical description of the heating system

The Alde Compact 3030/3030 Plus boiler is designed to provide you with both heating and hot water. The heating system contains both a gas burner and electrical cartridges and you can use the system with either LPG, electricity or both.

The heating system consists of the boiler and an expansion vessel, which is installed at the highest point of the vehicle. Use your vehicle's instruction manual to see where the expansion vessel is installed. The heating system works by circulating hot glycol mixture through pipes and heat convectors, similar to the heating systems used in many homes.

The heating system is equipped with a 12 V electric circulation pump (in a single-zone system) or two 12 V electric circulation pumps (in a dual-zone systems) used to circulate the heated fluid. The heat convectors, located near the floor of the vehicle, allow the air to be heated by the hot fluid in the system and then the air rises and circulates to heat the space in your vehicle. The heating system is also fitted with a built-in hot water heater that holds around 10 litres of fresh water.

The heating system boiler can produce around 14 litres of water at a temperature of 40 °C every half hour. If immersion heater elements are used to run the heating system instead of gas, the capacity is a little smaller. You can use the heating system to heat the vehicle without filling the hot water heater.

Dimensions/weight/gas		
Height x depth x width:	310 x 340 x 510 mm	
weight (without fluid):	14 kg (3030)/ 15 kg (3030 Plus)	
<b>Gas:</b>	<b>Propane</b>	<b>Butane</b>
Output 1:	3.3 kW	3.8 kW
- Consumption:	245 g/h	275 g/h
Output 2:	5.5 kW	6.4 kW
- Consumption:	405 g/h	460 g/h
Pressure:	I <sub>3+</sub> 28–30/37 mbar	I <sub>3B/P</sub> 30 mbar

Volume/pressure/temperature	
Fluid volume, radiator water:	3.5 L
Fluid volume, tank hot water:	10 L
Maximum pressure radiator water:	0.05 MPa (0.5 bar)
Maximum pressure tank hot water:	0.3 MPa (3.0 bar)
Maximum system temperature:	80°C
230-240 VAC	
Output element (2 or 3 kW):	1x 1050 W, 1 x 2100 W
12 V DC	
Actual consumption:	Max. 1.9 A
Fuse:	3.15 A

## 12.1 Operation on LPG

LPG is a petroleum product officially called liquefied petroleum gas. It consists mainly of propane and butane. The advantage of propane is that it remains in gaseous form in temperatures as low as  $-40^{\circ}\text{C}$ . Therefore, propane is used in colder climates. Avoid using composite bottles when winter camping.

The LPG bottle contains LPG in liquid and gaseous form. When the bottle is filled, the gas is converted into liquid form by the pressure. When the gas cylinder valve is opened, the liquid turns to gas again.

### **⚠️ WARNING** Fire/explosion risk

The risk of LPG is that leaking gas can ignite, causing an explosion. Since LPG is more dense than air, leaking gas will accumulate at the lowest point in the section that contains the leak. To make it easier to detect gas leaks, a substance with a clear, strong odour has been added to the gas.

For your safety, install a gas alarm as recommended by the manufacturer.

### **⚠️ WARNING** Asphyxiation hazard

LPG contains no toxic substances, but inhalation of concentrated gas can cause asphyxiation due to lack of oxygen. Incomplete combustion of LPG can produce carbon monoxide (CO), which presents an asphyxiation hazard.

For your own safety, install and use a carbon monoxide detector.

When you select LPG operation on the Control Panel, the LPG burner starts in the heating system and the pump that automatically circulates the glycol mixture every time the thermostat requires more heat.

### **⚠️ WARNING** Fire/explosion hazard

The exhaust temperature from the LPG burner can reach  $200^{\circ}\text{C}$ . Never place flammable materials and fluids near the flue.

### **⚠️ WARNING** Burns

The exhaust temperature from the LPG burner can reach  $200^{\circ}\text{C}$ . Stay away from the wall flue during LPG operation.

The gas burner continues to run and the pump continues to circulate the fluid until the thermostat reaches the selected temperature. If the LPG burner turns off for any reason, a sensor is activated and the heating system will automatically try to restart (after about 10 seconds).

## 12.2 Operation on electricity

All Alde Compact 3030/3030 Plus heating systems are fitted with 230 V heating elements (one 1 kW and one 2 kW) with a total 3 kW output. When electric operation is selected in the Control Panel, the electrical cartridges are used to heat the heating system. The heating elements and circulation pump are controlled in a similar way to when gas operation is used.

### **NOTICE**

Check that the electrical network meets the requirements before using electric power. The power supply at different campsites varies between 6 A, 10 A and 16 A. Limit your vehicle's electric consumption to the fuse you have plugged in.

1 kW - 6 A fuse. 2 kW - 10 A fuse. 3 kW - 16 A fuse.

### 13. Warranty

**Alde International Systems AB (the "Company") gives the original buyer of the product (the "original owner") an exclusive warranty, under the above terms and conditions, and during the warranty period (as defined below) that the Alde Compact 3030/3030 Plus boiler (the "product") complies with the company's published technical data and is free from defects in materials and manufacture in the course of normal and intended use. The company has the right to deviate from published technical data as a result of new innovations in the product.**

This warranty applies to the original owner of the product, subject to the following conditions:

1. The product is only intended for use in recreational vehicles, for heating radiators and water, as described in detail in the user instructions.
2. The liability of the Company under this warranty is limited to the replacement or repair of the product, in whole or in part, at the company's sole discretion.
3. The above warranty applies only on condition that the product is stored, transported and used correctly, and does not apply to defects caused by normal wear and tear or normal deterioration.
4. The following points are classified as normal maintenance and are not covered by this warranty:
  - a. adjustment of gas pressure
  - b. cleaning or replacing burner
  - c. cleaning or adjustment of combustion fan
  - d. cleaning or adjustment of gas valve
  - e. venting the system due to relieve air pockets
  - f. adjustment of pressure relief valve
  - g. replacement of glycol.
5. The Company cannot be held liable for any damage or destruction caused by an accident or intentionally or as a result of improper, unreasonable or inappropriate use (including, but not limited to, failure to contact an approved repairer, failure to comply with due product maintenance or failure to comply with safety instructions and notices listed in the instructions for use, tampering with the product, improper installation of the product in violation of the instructions for use and/or applicable laws, regulations and local/national/provincial rules); modifications to the product or other use thereof without the written permission of the company; force majeure or other causes not caused by defects in materials or manufacture.
6. The original owner may not attempt to repair or replace the product without the written permission of the company. Any attempt by the original owner to repair or replace the product without the written permission of the company voids this warranty.
7. The original owner shall immediately, but in any case no later than five (5) days after delivery of the product, inspect the product for conformity and visible defects. The original owner shall immediately notify the company in writing of any deviations or visible defects in the product. If the original owner does not notify the company of any deviations or visible defects within five (5) days of delivery of the product, the original owner is deemed to have waived the right to any warranty claims in this regard.
8. The "Warranty Period" is valid from the date the products are delivered to the original owner and lasts for two (2) years. The "warranty period" will be suspended during repair or replacement until the repaired or replaced product has been returned to the original owner. The company's sole liability under the above warranty is to, at its sole discretion and discretion, replace or repair the defective product, in whole or in part. The company must repair the water tank in its entirety if the inner tank of the built-in immersion heater leaks due to corrosion. This warranty covers all reasonable labour costs. However, service calls to the original owner are not counted as part of these costs and are therefore the responsibility of the original owner.

Notwithstanding the above, the warranty period for spare parts (or replacement of the boiler as a whole) is equal to the unused warranty period or ninety (90) days, the largest. The company does not allow any other person or party to accept on its behalf any liability in connection with the product, except as stated here.

9. In the event of a warranty claim, the original owner shall immediately inform the company in writing of any defects in the product .

10. Notices and requests must be addressed to:

**Alde International Systems AB**

Wrangels Allé 90 • 291 75 Färlöv • Sweden

Tel: +46 (0)44 712 70

info@alde.se • www.alde.se

The original owner shall include name, address, telephone number, warranty registration number (if known), the date of the original consignment and a description of the alleged defect, as well as the date on which the defect was discovered. The company will provide details of any additional information and physical evidence that may be required to process the original owner's claim.

All replaced or repaired products are covered by this warranty, after replacement or repair. If the company has been notified in writing by the original owner and no defects in the product have been detected, the original owner shall bear the costs incurred by the company as a result of the notification. The company will determine, according to its sole discretion whether the product has a defect.

11. Any actions arising from warranty claims shall be carried out directly at an authorised service centre (list provided free of charge).

12. In the event of a repair, any defective parts replaced become the property of the company. In the event of replacing the product, in whole or in part, the entire product, or product part replaced becomes the property of the company.

13. THIS WARRANTY TAKES PRECEDENCE OVER ALL OTHER WARRANTIES (EXPRESS OR IMPLIED), RIGHTS AND CONDITIONS, AND THE ORIGINAL OWNER ACKNOWLEDGES THAT THE PRODUCTS, APART FROM THIS LIMITED WARRANTY, ARE DELIVERED AS THEY ARE CURRENTLY. WITHOUT PREJUDICE OR LIMITATION, THE COMPANY DISCLAIMS ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, OF ANY KIND, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, AND WARRANTIES ARISING FROM PARTY USE, COMMERCIAL PRACTICES OR OTHER CUSTOM.

14. UNDER NO CIRCUMSTANCES CAN THE COMPANY BE HELD LIABLE FOR ANY INDIRECT, INSIGNIFICANT OR SPECIAL OR CONSEQUENTIAL DAMAGES, OR DAMAGES THAT MAY RESULT IN LIABILITY, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFIT, LOSS OF INCOME, LOSS OF GOODWILL OR USABILITY CAUSED TO THE ORIGINAL OWNER OR THIRD PARTY, WHETHER BY MUTUAL CONSENT, AN INDICTABLE ACT , ACTION UNDER STRICT RESPONSIBILITY OR A DOCUMENT PRESCRIBED BY LAW, OR OTHERWISE, EVEN IF IT HAS BEEN INFORMED OF THE RISK OF SUCH DAMAGE. THE LIABILITY OF THE COMPANY FOR DAMAGES ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT SHALL UNDER NO CIRCUMSTANCES EXCEED THE PURCHASE PRICE OF THE PRODUCTS. IT IS RECOGNISED AND CONFIRMED THAT THE PROVISIONS OF THIS AGREEMENT ALLOCATE THE RISKS BETWEEN THE COMPANY AND THE ORIGINAL OWNER, THAT THE COMPANY'S PRICING REFLECTS THIS RISK ALLOCATION AND THAT IF IT WERE NOT FOR THIS ALLOCATION AND LIMITATION OF LIABILITY, THE COMPANY WOULD NOT HAVE CONCLUDED THIS AGREEMENT.

IN JURISDICTIONS THAT LIMIT THE SCOPE OF OR DO NOT ALLOW LIMITATION OF LIABILITY, SUCH AS LIABILITY FOR GROSS NEGLIGENCE OR WILFUL NEGLIGENCE, OR DO NOT PERMIT THE WAIVER OF IMPLIED WARRANTIES OR LIMITATION/WAIVER OF WARRANTIES OR LIABILITY UNDER THE ABOVE, THE WARRANTY IS APPLIED TO THE EXTENT PERMITTED BY APPLICABLE LAW. THE ORIGINAL OWNER MAY ALSO HAVE OTHER RIGHTS, DEPENDING ON THE STATE, COUNTRY OR OTHER JURISDICTION.

## 14. Health Declaration

# EU Health Declaration

We

Company name:	Alde International System AB
Postal adress:	Wrangels Allé 90
Postcode and city:	291 75 Färlöv
Telephone number:	+46 (0)44 71270
E-mail adress:	info@alde.se

declare that there is no risk of pollution towards environment with the materials used in the following appliance:


Apparatus model/product:	Compact 3030, Compact 3030 PLUS
Type:	Gas-fired Vehicle Heater
Serial number:	At data plate

The materials listed below are appropriate for the specific use according to current state of the art. The materials does not create harmful substances for the environment during intended use.

The following standards and technical specifications have been applied:

Name/Number	Content	Used in
EN 1.4521	Ferritic Steel; Cr 18%; Mo2,5%	Water storage
316 L	Austenitic stainless steel	Plate heat exchanger
Ultraform N2320 FC Aqua UN	Polyacetal	Plastic housing/pipe Water connection
PA66+GF30; PP+GF30	Polyamid, Polypropen	2/3 way valve - case valve body & actuator
EPDM	Sealing	Water connection
EN AW 6063	99% Al Mg 0,7% Si	Combustion chamber
EN-AB 44 300; SS 4263	EN AB-Al Si12 (Fe)	Burner housing
OHLER FLEXROHR®	Aluminium foil 6 layers	Convey combustion product

Signed for and on behalf of:

Färlöv	2022/05/24	 Christian Delfin, R&D Manager
Place of issue	Date of issue	Name, function, signature

# UKCA Health Declaration

We

Company name:	Alde International System AB
Postal adress:	Wrangels Allé 90
Postcode and city:	291 75 Färlöv
Telephone number:	+46 (0)44 71270
E-mail adress:	info@alde.se

declare that there is no risk of pollution towards environment with the materials used in the following appliance:

Apparatus model/product:	Compact 3030, Compact 3030 PLUS
Type:	Gas-fired Vehicle Heater
Serial number:	At data plate

The materials listed below are appropriate for the specific use according to current state of the art. The materials does not create harmful substances for the environment during intended use.

*The following standards and technical specifications have been applied:*

Name/Number	Content	Used in
EN 1.4521	Ferritic Steel; Cr 18%; Mo2,5%	Water storage
316 L	Austenitic stainless steel	Plate heat exchanger
Ultraform N2320 FC Aqua UN	Polyacetal	Plastic housing/pipe Water connection
PA66+GF30; PP+GF30	Polyamid, Polypropen	2/3 way valve - case valve body & actuator
EPDM	Sealing	Water connection
EN AW 6063	99% Al Mg 0,7% Si	Combustion chamber
EN-AB 44 300; SS 4263	EN AB-Al Si12 (Fe)	Burner housing
OHLER FLEXROHR*	Aluminium foil 6 layers	Convey combustion product

*Signed for and on behalf of:*

Färlöv	2022/06/13	 Petter Johnsson, VD
Place of issue	Date of issue	Name, function, signature

## 15. Declaration of Conformity

# EU Declaration of Conformity

We

Company name:	Alde International System AB
Postal address:	Wrangels Allé 90
Postcode and city:	291 75 Färlöv
Telephone number:	+46 (0)44 71270
E-mail address:	info@alde.se

Declare that the declaration of conformity is issued under our sole responsibility and belongs to the following appliance:

Apparatus model/product:	Compact 3030, 3030 PLUS
Type:	Gas-fired Vehicle Heater
Serial number:	At data plate

The object of the declaration described above is in conformity with GAR, Regulation of Appliance burning gaseous fuels (EU) 2016/426:

The following standards applies to demonstrate conformity with the regulation according to the essential requirements in Appendix I:

Number	Title	Year
EN 624	Specification for dedicated LPG appliances- Room sealed LPG space heating equipment for installation in vehicles and boats	2011
EN 298	Automatic burner control systems for burners and appliances burning gaseous or liquid fuels	2012
EN IEC 61000-6-1	Electromagnetic compatibility (EMC) Generic standards- Immunity for residential, commercial and light-industrial environments	2019
EN IEC 61000-6-3	Electromagnetic compatibility (EMC) Generic standards- Emission standard for residential, commercial and light-industrial environments	2021
EN 60335-1	Household and similar electrical appliances-Safety-Part 1 General requirements	2012/+ A11:2014+ AC1:2014+ A13:2017
EN 60335-2-21	Household and similar electrical appliances-Safety-Part 2-21 Particular requirements for storage water heaters	2003 + A1:2005+ A2:2008


Notified body GAR:

Guarantee of-production quality	
Name of Notified body:	DBI-Certification A/S
4 digit notified body number:	2531
Certificate number:	2531CS-0131

UNECE:

The appliance conforms also to the following UN Vehicle Regulation
UNECE R10 EMC for vehicles, UNECE R122 approval of vehicles with regard to their heating system

Signed for and on behalf of:

Färlöv	2022/05/24	
Place of issue	Date of issue	Name, function, signature



# UKCA Declaration of Conformity

We

Company name:	Alde International System AB
Postal address:	Wrangels Allé 90
Postcode and city:	291 75 Färlöv
Telephone number:	+46 (0)44 71270
E-mail address:	info@alde.se

declare that the declaration of conformity is issued under our sole responsibility and belongs to the following appliance:

Apparatus model/product:	Compact 3030, 3030 PLUS
Type:	Gas-fired Vehicle Heater
Serial number:	At data plate

The object of the declaration described above is in conformity with GAR, Regulation of Appliance burning gaseous fuels (EU) 2016/426:

The following standards applies to demonstrate conformity with the regulation according to the essential requirements in Appendix I:

Number	Title	Year
BS EN 624	Specification for dedicated LPG appliances- Room sealed LPG space heating equipment for installation in vehicles and boats	2011
BS EN 298	Automatic burner control systems for burners and appliances burning gaseous or liquid fuels	2012
BS EN IEC 61000-6-1	Electromagnetic compatibility (EMC) Generic standards-Immunity for residential, commercial and light-industrial environments	2019
BS EN IEC 61000-6-3	Electromagnetic compatibility (EMC) Generic standards-Emission standard for residential, commercial and light-industrial environments	2021
BS EN 60335-1	Household and similar electrical appliances-Safety-Part 1 General requirements	2012/+ A11:2014+ AC1:2014+ A13:2017
BS EN 60335-2-21	Household and similar electrical appliances-Safety-Part 2-21 Particular requirements for storage water heaters	2003 + A1:2005+ A2:2008

Notified body GAR:

Guarantee of-production quality	
Name of Notified body:	DBI-Certification A/S
4 digit notified body number:	8504
Certificate number:	8504-UKCA-GAR-UKCGC10032

UNECE:

The appliance conforms also to the following UN Vehicle Regulation
UNECE R10 EMC for vehicles, UNECE R122 approval of vehicles with regard to their heating system

Signed for and on behalf of:

Färlöv	2022/06/13	 Petter Johansson, VD
Place of issue	Date of issue	Name, function, signature

## 16. Software License

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