


 Operating Instructions - Alde Compact 3020 HE

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**Install an Alde Compact 3020 High Efficiency together with Truma AC and obtain a complete automatic climate control (ACC).**

**The panel already supports the automatic climate control function.**

The automatic climate control functions together with Truma AC:

- Aventa comfort
  - Aventa eco
  - Saphir comfort RC
  - Saphir compact (serial no. > 23091001)
- Saphir compact needs a Truma adapter 40090-69300





## OPERATING INSTRUCTIONS ALDE COMPACT 3020 HIGH EFFICIENCY

Read this manual carefully before starting to use the heater. For installation instructions see separate manual. This manual is approved for Alde Compact 3020 heaters which are installed in a vehicle according to CE 0402 No. SC0653-13 and which have E5 labelling for installation in vehicles according to R122 and R10. Installation and repair must only be undertaken by a professional. National regulations must be followed.

### 1. CHECKING THE HEATING SYSTEM BEFORE USE.

- **Check the antifreeze level in the expansion vessel**, the level should be approx. 1 cm above the min. line when the system is cold. Ensure that the system is properly vented before it is put into operation.  
**Warning!** The boiler must not be started if there is no ethylene glycol fluid in the system.  
**Warning!** Do not mix different types of glycol as this could cause the glycol fluid to coagulate. Refer to section 12 for more information on glycol fluid.
- **Check that the flue is maintained free of snow and ice** as induction air enters the boiler via the flue in connection with LPG operation. Also check that other objects are not obstructing or disrupting flue gases and supply air from the flue.  
**Tip!** A flue extension (part no. 3000 320) is recommended for the roof flue for camping in winter.  
**Warning!** Ensure that the flue is not located in a closed area, for example an awning, as this can entail a risk of carbon dioxide poisoning.
- **Check supply and exhaust air intake**, the vehicle is usually equipped with supply and exhaust air valves (see instructions for the vehicle) these may not be blocked as it impairs the heating system's effectiveness and the air quality in the vehicle, which can lead to carbon monoxide poisoning.
- **Check air circulation**, make sure there is nothing preventing air circulation (convection). In order to exploit the water-borne heat design to the full, it is important that air can circulate freely under bunks and behind backrests and wall-mounted cabinets. If the vehicle has a fitted carpet, ensure that the carpet does not obstruct the air supply to the convectors. It is just as important that cushions or blankets do not obstruct and hinder the air circulation behind backrests.

### 2. THE FIRST TIME THE HEATING SYSTEM IS STARTED.

- **Hot water heater** Always flush the water heater before using for the first time or if it has not been used for a long period. Then fill the water heater with water, refer to separate instructions for the vehicle. The boiler can equally well be used without any freshwater in the heater.  
**NB!** Hot water from the boiler is not intended as drinking water or for food making.  
**Warning!** Fresh water in the heater should always be drained when there is risk of frost or there is a risk of the boiler freezing.  
**The warranty does not cover frost damage.** A frost guard can be installed to reduce the risk of freezing.  
**NB!** Note that the water in the water heater can be hot.
- Carry out a check as in section 1 (Checking the heating system before use).
- Start the boiler as described in section 3.
- Select language, this appears when the panel is started for the first time, see section 7:1 point 22.
- Check that the right accessories are ticked in the list for installed functions, see section 11.
- Set the clock, see section 7:1 point 4.
- Set the desired operating mode (gas and/or electric) and the desired interior temperature, refer to sections 5:1, 5:3 and 5:4. The LPG boiler and immersion heaters can be operated simultaneously, but this should be avoided in newly filled systems.  
**NB!** The boiler uses no more power than is needed, even if it is set for both 3kW electricity and gas.

### 3. TURNING THE BOILER ON AND OFF

The control panel and the boiler are switched off.



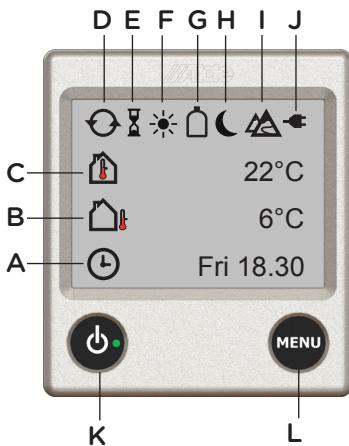
The control panel and the boiler are switched on.



1. To start the boiler, press the On/Off button and the start-up display appears. The boiler starts with the last selected settings.
2. To switch off the boiler, press the On/Off button.

### 4. STANDBY

**NB!** The screen goes out when it enters standby mode if the background lighting is set at dark. However, it comes on if the screen is touched. See settings under section 7:1 point 8.



- A. Clock.** The clock shows the day and time (if activated). To set the clock, see under section 7:1 point 4.
- B. \*Exterior temperature.**
- C. Interior temperature.**
- D. Circulation pump.** The symbol is displayed when the pump is in operation.
- E. Automatic start of the boiler.** The symbol is displayed when the function is activated in accordance with section 7:1 point 18.
- F. Day automation.** The symbol is displayed when the function is activated and the time is within the specified time period.
- G. \*LPG bottle full/empty.** The symbol is displayed when the sensor on DuoControl is connected and activated. If EisEX is installed, the symbols for the mode set are displayed along with the bottle symbol.

- H. Night automation.** The symbol is displayed when the function is activated and the time is within the specified time period in accordance with section 7:1 point 1.
- I. High altitude mode.** The symbol flashes if the high altitude mode is activated. NB. If an additional hot water tank (\*Alde Flow Art. No. 3020 160) is installed and the panel is in more hot water mode, the symbol below is displayed instead of the high altitude symbol.

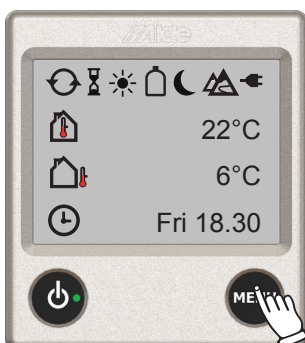


- J. 230 volt.** The symbol is displayed when 230 V is connected to the boiler.
- K. On/Off button.** Main switch for boiler.
- L. MENU button.** Button for settings menu.

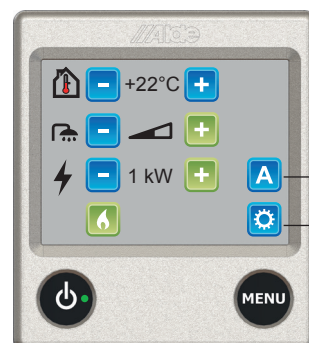
### 5. SETTINGS MENU

Launch the settings menu by pressing the MENU button. The backlighting comes on and those functions that can be set are displayed. Settings that you make are automatically saved after 10 seconds. The control panel will go to standby automatically after 30 seconds if the screen has not been touched.

Standby mode.



Settings menu

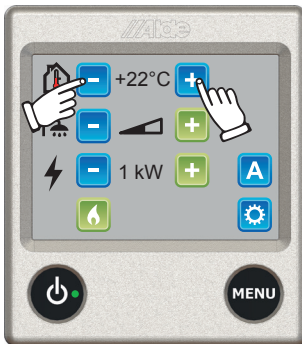


- Activated features, see Section 6.
- Tools Menu, see Section 7.

## 5:1 SET THE DESIRED TEMPERATURE

The temperature can be set between +5°C and +30°C in increments of 0.5°C.

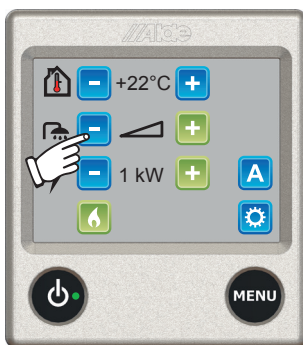
**NB.** If night or day automation is activated, see section 7:1 point 1 and 2 it is not possible to make temperature adjustments. The plus and minus symbols are then grey.



1. The temperature displayed is the temperature which is currently set.
2. Increase the temperature by pressing the + button. Reduce the temperature by pressing the - button.
3. The settings are now complete and the boiler will work at the set temperature.

## 5:2 DOMESTIC HOT WATER

The Alde boiler stores 8.4 Litres of hot water as standard. If the hot water cylinder is empty, the air is heated but no damage can result. There are three different alternatives for how the boiler can be regulated depending on need of hot water, no hot water, normal operation and more hot water.



1. **No warm water.** If warm water is not needed, press -. (symbol becomes empty)

**NB!** If night or day automation is activated, see section 7:1 points 1 and 2 and where hot water is turned off, it is not possible to make hot water adjustments. The plus and minus symbols are then grey.

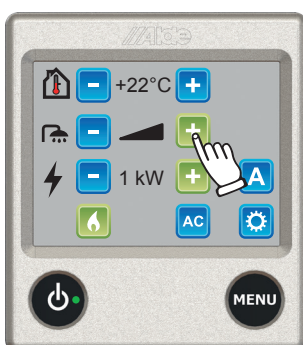


2. **Normal operation.** If there is freshwater in the heater and hot water is required, press the + button (the symbol will then show half-shaded).

**NB!** If the 7:1 point 17 Pump operation function has been set to Cont., this option cannot be selected.

**Info!** When hot water only is required, during the summer for instance, or when there is no requirement for hot water, no settings need to be made; the boiler looks after this function automatically.

**NB!** As the hot water and antifreeze in the boiler are heated simultaneously, the hot water can be very hot when a high level of heating is required.

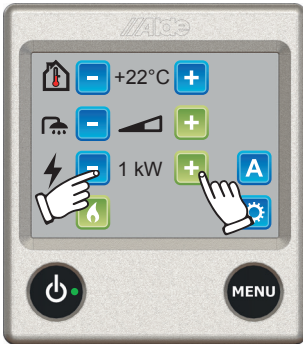


3. **More hot water.** If you need more hot water, the water temperature can be temporarily increased to about 70°C. Press the + button so that the symbol shows fully shaded (black). The boiler returns to normal operation after 30 minutes. Once you have selected more hot water, the circulation pump stops. **NB.** If the 7:1 point 17 Pump operation function is set at Cont., then the continuous pump operation function is turned off for 30 minutes, but returns thereafter to continuous pump operation.

If an additional hot water tank (\*Alde Flow Art. No. 3020 160) is installed and the panel is in more hot water mode, continuous hot water is supplied. The hot water function can then be in operation for longer than 30 minutes.

### 5:3 HEATING WITH ELECTRICITY ⚡

Proceed as follows to activate heating with electricity. The more power (wattage) you select, the quicker heating will take. A priority can be set when selecting both electricity and gas, see section 7:1 point 3. The boiler does not use a higher output than is required, even if 3kW has been selected.



1. Use the + or - button to switch on the electric heating and toggle between the various power modes (Off, 1 kW, 2 kW or 3 kW). The set value will be displayed on the screen. The activated mode is indicated by the + symbol changing colour to green. If a \*load monitor is installed and set, the boiler will not use more electricity than it is capable of even if 3 kW is selected.
2. The settings are now complete and the boiler is working at the set temperature.
3. To switch off electrical operation, browse down to Off.

### 5:4 HEATING WITH GAS 🔥

Proceed as follows to activate heating with gas. The priority of electricity or gas can be set if both are selected, see section 7:1 item 3.



1. Start LPG operation by pressing the LPG flame. The LPG symbol is activated and changes colour to green.
2. The settings are now complete and the boiler will work at the set temperature.
3. Press the LPG flame to switch off LPG operation, the symbol turns blue.

### 5:5 \*FULLY AUTOMATIC CLIMATE CONTROL (ACC)

If you have a Truma AC installed and connected to the panel, then the AC button is visible and it is possible to control AC from the panel. This function makes it possible to have fully automated climate control for both heating, cooling and hot water. The button is not visible if 230 V is connected from the AC.

Figure 1



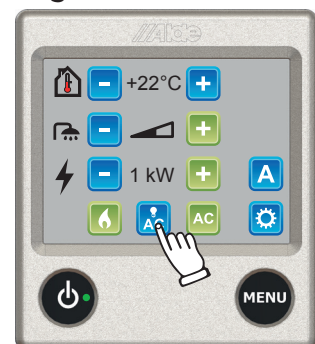
1. Set the desired temperature.
2. Press the blue AC button, the button turns green (see fig. 2) and the AC function is switched on, but is not necessarily in operation. If gas and/or electricity is switched on, AC and the boiler work to deliver the temperature set. Regardless of whether heat or cooling is needed in the vehicle. To turn off the ACC function, press the AC but-

Figure 2



ton and it becomes blue. The remote control for AC can be used in this mode.  
**NB!** Temperature sensors that are used when full automatic climate control is in operation shall be positioned so that they are influenced equally by the heat from Alde's heating system and the air from AC. In certain cases it can be an advantage to us Alde's temperature sensor (Art. No. 3010 638).

Figure 3



3. To turn AC lighting off and on, press the button rapidly. When the button is kept pressed in, the light changes from dark to light and then back (light to dark) and so on in 10 brightness levels. When the button is released it stays at the current brightness. This button is only visible when AC\* is connected.

## 6. ACTIVATED FUNCTIONS A

Activated functions (see fig. 2) can be accessed by pressing the **A** symbol (see fig. 1). This screen shows the various functions that are activated. The respective function that is activated can be accessed from here and new settings can be made.

**NB!** A symbol is only visible if any of the functions shown below are activated and/or installed.

Figure 1

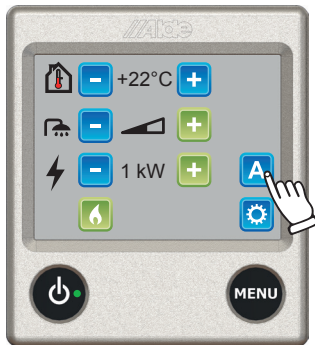
















Figure 2

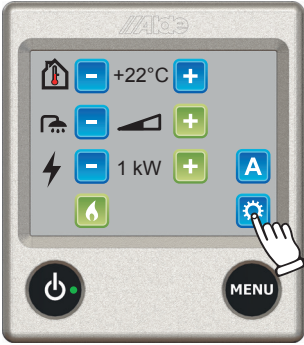


There is a description below of the various symbols in the Activated Functions menu. For a more detailed description, see section 7.

- |   |   |   |   |
|---|---|---|---|
|   | Night auto is activated. However, it does not have to be within the time/day setting.   |   | * Load monitor is connected and set to limited current.                       |
|  | Automatic boiler start is activated. However, it does not have to be within the time setting.   |  | * Booster is on.  |
|  | * This function is used to enable an external main panel to operate certain of the boiler's functions or if *Alde Smart Control (Art. No. 3020 057) is installed to control the boiler via a Smart Phone. |  | High altitude mode is activated.  |
|  | * Displayed if one or two external room sensors are connected.  |  | * EisEx is installed but not necessarily turned on.                           |
|  | Circulation pump in continuous operation. <b>NB!</b> This function limits the supply of hot water, particularly when there is a low heating requirement   |  | * DuoControl or DuoComfort is installed and connected to Alde Compact 3020 HE |
|  | Day auto is activated. However, it does not have to be within the time/day setting.   |  | * Timer for engine heater is set but not necessarily within the set time/day. |
|  | * The boiler is set to be started with External start but has not necessarily been activated.   |  | * Floor heating is in operation.  |

## 7. TOOLS MENU

The tools menu can be accessed from the settings menu.

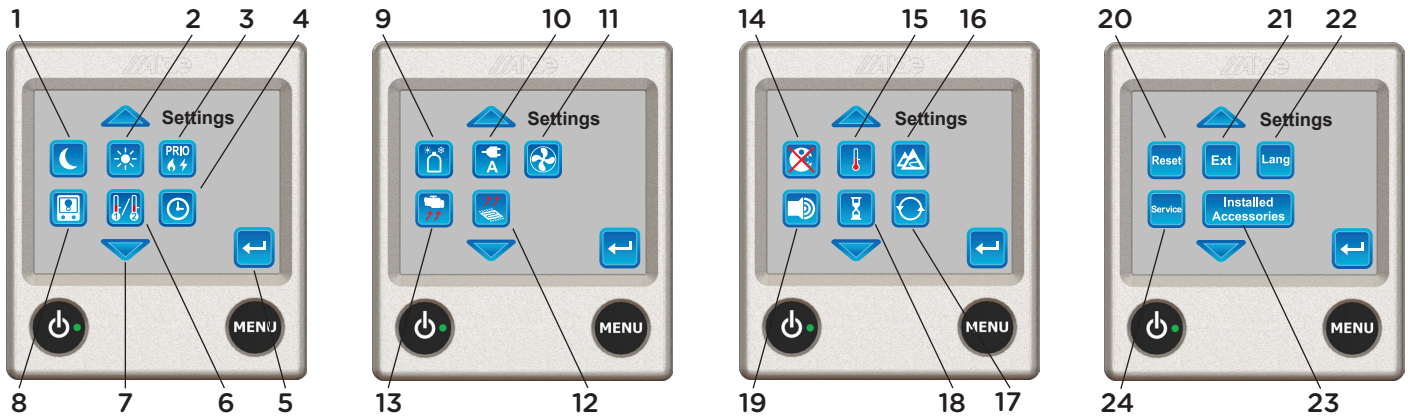


1. Control panel showing the settings menu.  
Press the tool symbol to access the tools menu.

### 7:1 TOOLS MENU - FUNCTIONS

The following tools are available from the tools menu.

A grey function button means the function has not been installed and/or activated.



#### 1. Night automation

Automatically changes certain functions during the night. Select that it takes place every night or a specific night each week. The functions that can be changed are:

- Temperature
- \*Change of room sensor
- Invert display
- Turn off warm water
- \*AC in quiet mode



#### 2. Day automation

Automatically changes certain functions, e.g. if you are away for a while during the day. Select that it takes place every day or a specific day each week. The functions that can be changed during the day are:

- Temperature change
- Turn off warm water



#### 3. Prio setting

With this function you can choose to prioritise (select) electricity or gas as the main alternative.



#### 4. Clock

The clock must be set if engine heater start, night and/or day auto and automatic start is to work. If 12 V power is lost, the clock will stop and will no longer be displayed. Installing battery backup will prevent this happening



#### 5. Return









To return to the previous menu, press this symbol.



#### 6. \*Setting room sensor

Select which temperature sensor shall be active. Set whether the sensor located in the accommodation part, the sleeping part or in the panel is to be active. If Auto is selected, the sensor in the panel is active and will automatically switch to room sensor (sofa and/or bed) if one is connected. If two room sensors are connected, it will be the one for the accommodation part that is active (sofa).



-  **7. Arrow symbols**  
Toggle between the various tool fields by using the up/down arrow symbols. Leave the tool menu using the MENU button or the return button.
-  **8. Background lighting**  
Standby Screen can be set in three different modes, Dark, Bright and Invert.  
**Dark:** Turns off background lighting. Press the screen or the menu button when standby is activated and the screen comes on, but returns to dark after 30 seconds if the panel is not touched.  
**Bright:** Background lighting in standby mode.  
**Invert:** Inverted background lighting in standby mode.  
Standby is activated automatically after 30 seconds if the panel is not touched.  
**Brightness** can be adjusted in three steps (1-3).
-  **9. \*EisEX, 12 V defroster for gas regulator**  
This is a little heating element that prevents ice forming in the regulator in winter (for Mono Control CS, DuoControl CS, DuoControl and DuoComfort). If DuoControl CS or DuoControl is installed and connected, symbols will be displayed together with the gas bottle symbol in the rest menu to show what has been selected.  
**Snowflake** = EisEX ON  
**Sun** = EisEX OFF
-  **10. \*Load monitor**  
The function prevents the fuses on 230V being overloaded. If the total current consumption of the vehicle exceeds the set value, the electrical output of the boiler will be reduced automatically. This also applies to Truma Comfort AC if connected to Alde 3020. Due to voltage fluctuations and tolerances, different regulation levels can be selected (5-17 A). If the fuse blows, choose a lower setting.  
**NB!** For AC to function with the load monitor. AC must be on from the panel and not via the remote control
-  **11. \*Booster**  
Control of booster in two different speeds. Fan start and stop is controlled from the boiler. If the boiler's circulation pump starts up, the fan on the booster will as well. When the circulation pump stops, the fan will continue to run for another six minutes and also stop unless the circulation pump has started again, i.e. giving automatic control of the booster fan.
-  **12. \*Floor heating**  
The function governs the underfloor heating pump's operation in intervals, which means that the underfloor heating pump is in operation for 5 min and is then off for 5 min when heat is required.  
**Mode:** Select whether Delay or Cont. is activated, in these two modes underfloor heating is switched on. In Off mode underfloor heating is off.  
**NB!** In Cont. mode it can get hotter in the vehicle than desired as the heat control is turned off!  
**Delay :** The underfloor heating pump is on for a certain period after the boiler's circulation pump has stopped, this Delay can be set at 15 min, 30 min or 120 min.
-  **13. \*Engine heater**  
The function makes it possible to use the heating system to heat up the engine in a motorhome, bus etc.  
**Engine heater start:** Press the button marked Off, the text will change to On and the button will turn green. Then set the required starting time and day. Engine heating starts at the set time and day, heating is then active for 60 minutes and will stop automatically.  
**NB!** The clock in the panel must be set for the function to work.
-  **14. Automatic temperature increase (legionella)**  
The boiler will start at 02.00 in the morning (if the clock is set) and run as indicated for "More hot water" for 30 minutes (see section 5.2). This is to reduce the risk of legionella.
-  **15. Offset (temperature adjustment)**  
If the temperature that is displayed in the panel does not correspond to the actual temperature, it can be adjusted by  $\pm 5^{\circ}\text{C}$  in the panel.  
Applies also to display of external temperature.
-  **16. High altitude mode**  
The function only needs to be used if the boiler will be powered by LP-gas at a height above 1000m.  
If the LPG burner runs unevenly at high altitude (over 1000m), turn off the boiler, see section 3 point 2, using the On/Off button and then start the boiler with high altitude mode switched on.  
**NB!** With LPG operation at high altitude, use propane to obtain stable combustion.



## 17. Circulation pump

**Pump selection:** Choice of pump.



\*12 V pump, pump capacity is variably adjustable with a potentiometer on the back of the pump (1-5), normal mode is 2, which works in most cases. Mounted on the boiler.



\*PWM controlled 12 V pump, this is a variable speed controlled pump that can be set to five different levels (1-5) via the panel, normal level is 2, which works in most cases. Mounted on the boiler



\*Extra 12 V pump, often located in the expansion tank.



\*230 V pump. Often used in combination with an extra 12 V pump located in the expansion tank.

If you have both a 230 V pump and an extra 12 V pump installed, you will also be able to select AUTO mode from the menu.

**Auto:** In this mode the \*230 V pump is on if 230 V is connected. If 230 V is disconnected, the additional 12 V pump is activated.

### Pump setting: (Setting)

**Cont.:** The pump is in constant operation. (NB. This function limits the supply of hot water, particularly when there is a low heating requirement).

**Therm:** The pump is controlled by the room sensor. This is the normal mode for heat and hot water.



## 18. Automatic boiler start

Starting the boiler at a certain time and day. The boiler will be on every week during the time set, until the function is deactivated. For automatic start to function, the boiler must be turned off.



## 19. Button sound

Turn the button sound on and off.



## 20. Reset

Press **Reset** and the panel returns to factory setting.

**NB.** Settings made in installed functions are deleted.



## 21. External start

The function is used when starting the boiler from outside. When external start has been activated the panel shall be turned off. External start has three modes, Off, Ext and 230 V. In the Off mode the function is turned off.

**\*Ext.** The function is used when starting the boiler through an external signal. When the Ext. function has been activated, the control panel shall be turned off, but 12 V shall be connected. The parameters/functions that the boiler shall have when it starts shall be set before turning off the control panel.

**NB!** Using this function requires installation of an accessory that can use external start.

**230 V.** The function is used to start the boiler when connection of 230 V to the vehicle takes place from outside. When the 230 V function has been activated the control panel shall be turned off but 12 V shall be connected. The parameters/functions that the boiler shall have when it starts shall be set before turning off the control panel (230 V connected). Certain vehicles can be equipped with an individual solution (\*winter connection).



## 22. Language

Change between different languages Available languages are English, French and German.

However, the service menu is only available in English (see section 8).



## 23. Installed functions

The accessories that are installed are activated here (see section 11).



## 24. Service menu.

To exit the tools menu, press Return or Menu.

## 8. SERVICE MENU

The Service menu is accessed by pressing **Service** (see fig. 1). The function shows the values from the boiler on the screen (fig. 2 and 3). The values are updated every second.

Figure 1



Figure 2



Figure 3



## 9. TROUBLESHOOTING

Always start by checking any error messages.

If a fault occurs in the system, the cause will be shown on the display. This is only displayed when the control panel is in standby mode. To reset certain of the faults and restart, disconnect the panel from the boiler, remove 230 V and disconnect 12 V from the boiler.

**NB!** The error messages can sometimes temporarily appear in connection with disconnection of 230 V or 12 V while the boiler is on. If there is no failure, these faults can be disregarded.

### The boiler will not start on gas

- No LPG?
- Is the main tap fully open?
- Check that the type of LPG used is suitable for the prevailing outdoor temperature. Butane is unsuitable for use at temperatures lower than +10°C. Use propane instead.
- If the boiler has not been operated for some time, or if the LPG cylinder is new, it may take longer than normal to light the boiler.
- Check that power is being supplied to the boiler (> 11 V).
- Check that the fuse for the boiler has not blown.
- Check that the electrical connections on the boiler are secure and tight.
- If none of the above helps, contact a service workshop.

### The electric element is not working

- Check that power is being supplied to the boiler (> 11 V). and (230 V).
- If none of the above helps, contact a service workshop.
- Check that the fuse for the boiler has not blown.
- If none of the above helps, contact a service workshop

### \*ACC not working

- Ensure that the temperature sensor that is used senses the heat from the boiler and the cooling from the AC equally. If necessary, a more open temperature sensor can be used (Art. No. 3010 638).

## 9:1 ERROR MESSAGES

**Low battery:** 12 V supply to boiler has dropped below 10.5 V, possibly causing system brownout. Automatically clears when 12 V supply reaches 11 V. If the voltage decreases, various error messages can also appear. These are not genuine faults. Ensure that the boiler has the right voltage.

**Fan restarts:** Incorrect fan speed. New start attempt is made. Repeated faults results in **Fan failure**, If Fan failure recurs after resetting, contact a dealer. If Fan restarts is displayed, no action is necessary.

**Gas failure:** Out of gas or gas is not igniting. Check the gas cylinder is full. Try a different gas cylinder, ensuring it is propane gas. Check the gas regulator and any isolation valves are open and not frozen. Ensure that gas is available.

**Overheat red fail:** Overheat (red cable). Bleed the system of air. Check the fluid level in the expansion tank. It should be 1 cm above Min mark when cool. Check the circulation pump is responding. Wait 15 mins for the fluid to cool down. This fault can arise if the boiler is run at high power at the same time as there are air pockets in the heating system, the heating system should then be vented properly. If the fault remains, contact a dealer.

**Overheat blue fail:** Overheat (blue cable).

**Overheat PCB:** Failsafe in boiler has triggered. Check the fluid level in the expansion tank. It should be 1 cm above the Min mark when cool. Check the boiler compartment is ventilated, and that the vents are unobstructed. Do not place stowage in the boiler compartment.

\* **Window open:** Optional window sensor has triggered, gas heating is suspended. Automatically clears and gas heating resumes when window is closed.

**Connection failure:** Break in comms between Alde control panel and daisy-chained third party control panel. Check the cable between the Alde control panel and third party control panel.

**3rd party C. fail:** Communication fault between Alde's panel and external panel.

**Panel failure 1:** Moisture is trapped in the control panel. Remove the Alde control panel from the vehicle and air in a warm, dry place overnight.

**Panel failure 2:** Moisture is trapped in the control panel. Remove the Alde control panel from the vehicle and air in a warm, dry place overnight.

**No match Heater/Panel:** Control panel is incompatible with boiler PCB. Check control panel part number. Control panel 3020-013 is for 3020 A-series boiler, 3020-113 is for 3020 HE-series boiler.

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## 10. RESETTING

The panel can be reset to its factory setting by pressing **Reset**. After resetting, the panel will be set as follows: Boiler - Off mode; electrical operation - 1 kW; LPG heating - On mode; interior temperature - 22°C. Other functions are switched off.

**NB!** The functions that are checked under Installed functions (see section 11) will not be affected by Reset. Error messages in the error log are also affected by reset.



## 11. ACTIVATING INSTALLED FUNCTIONS

The first time you use the heating system, check that the right accessories/functions are activated. This also applies when you supplement the heating system with accessories/functions. Activate accessories/functions by pressing on Installed Accessories, (see fig. 1) and ticking the respective function/accessory to activate.

Figure 1



Figure 2



Figure 3



Figure 4

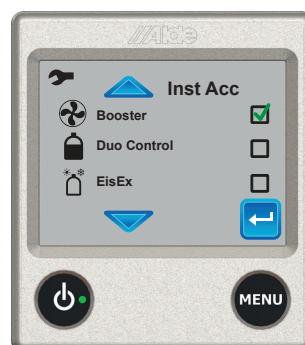


Figure 5



The respective box should be checked if you have:



Connected an external panel or Alde Smart Control (Art. No. 3020 057).



Connected an extra 12 V pump, often located in the expansion tank.



Connecting load monitor.



Connected a 12 V pump that is variably adjustable with a potentiometer knob.



Connected a PWM controlled 12 V pump with variable speed control that is set from the panel.



Connected a 230 V Pump.



Connected a Booster.



Connected a bottle changer (Duo-Comfort or DuoControl).



Connected a defroster (EisEx).



Connected a 12 V pump to the floor heating.



Connect an additional hot water tank to increase the hot water capacity and also obtain continuous hot water (Art. No. 3020 160).



Connected a 12 V pump for heating the vehicle's engine through the Alde heating system.

## 12. CARE AND MAINTENANCE

- **Checking and changing glycol mixture.** Regularly check the heating system's fluid level in the expansion tank. The level should be about 1 cm above the minimum mark, with the heating system cold. The heating system should be filled with a fluid mixture made up from water and ethylene glycol. For best results, use high-quality ready-mixed ethylene glycol (with inhibitors) intended for use in aluminium heating systems. The proportions when using concentrated ethylene glycol are 60% distilled water or water free from salts and 40% ethylene glycol. If the heating system is exposed to temperatures lower than -25°C, a higher ethylene glycol content must be used, but not more than 50%. **Glycol mixture must be changed every other year** as properties such as corrosion protection will deteriorate. If Alde Premium Antifreeze is used, the change interval can be extended to five years under normal operating conditions. If the fluid level is too low, the ethylene glycol content must be checked before topping up. This is to prevent excessive concentration of ethylene glycol in the mixture. When topping up, use the same quality of ethylene glycol mixture already in the system, alternatively use Alde Premium Antifreeze, which is compatible with most ethylene glycol brands on the market.  
**NB!** Any vessels used for handling or mixing the liquid must be spotlessly clean, and the pipes in the heating system must be free of contamination. This is to prevent the growth of bacteria and corrosion in the system. The boiler must not be started if there is no ethylene glycol fluid in the system.
- **Filling glycol.** The system is filled through the expansion tank, either manually or using the Alde filling pump (1900811), which both tops up and bleeds the system. For manual filling, unfasten the circulation pump nut (R) and then lift the pump \*(S) out of the tank. Slowly pour the ethylene glycol mixture into the tank.  
Bleed the system. Top up with more fluid if the level has fallen after bleeding. Bleed a newly filled heating system regularly during the first days it is in operation.
- **Checking LPG system** The LPG system should be checked regularly by a specialist, who will ensure that there are no leaks from connections or hoses. LPG hoses should be changed as indicated on the date stamp, as they tend to dry out and crack and are liable to leak as a result. For increased safety, we recommend fitting an Alde leak detector, type 4071, as close as possible to the reducing regulator.
- **Emptying the water heater.** The boiler is fitted with a built-in hot water heater which can hold approximately 8.5 litres of freshwater. The hot water heater can produce around 12 litres of 40°C water per half-hour (at a cold water temperature of 10°C). If the electric elements are used instead of gas for heating the water heater, the capacity is slightly reduced. The water in the water heater must be drained at least once a month in order to create a new air cushion in the heater. The air cushion is used to absorb pressure surges in the heater. For emptying specially-adapted boilers, as well as the vehicle's general freshwater system, please refer to the manufacturer's instructions.  
**NB!** The hot water heater should always be drained completely when there is a risk of frost and when the vehicle is not in use.  
**NB! The warranty does not cover frost damage.**  
**NB!** Note that the water in the water heater can be hot.  
Draining the heater using the combined safety/drain valve: (see page 15)
  - Switch off the freshwater pump.
  - Open all water taps.
  - Then open the safety/drain valve by raising the yellow lever (M) to a vertical position, or by turning the knob (K) 180°. The heater will now drain directly below the vehicle through the safety/drain valve hose. Check that all the water is emptied (about 7-10 litres). Leave the valve in the open position until the next time the heater is used.  
**NB!** Check that the automatic non-return valve (N) is open and is allowing air to enter the heater when it is being drained, and that the hose is not blocked.
- **Bleeding the system.** Depending on how the pipes have been fitted, air pockets may form when the system is filled with ethylene glycol fluid. If the pipes only warm up a metre or so from the boiler, even though the circulation pump is operating, it is a symptom of air trapped in the system. In a newly filled system, small air bubbles can form in the expansion tank, resulting in a gurgling sound. Switch off the circulation pump for a few seconds to allow the bubbles to disappear.  
**Bleed as follows:** If a bleed screw is fitted to the outgoing pipe of the boiler, open this screw and leave it open until fluid starts coming out. If the boiler is equipped with an automatic air vent, bleeding the boiler will take place automatically. Start the LPG boiler. The circulation pump should be switched off. Open the remaining bleed screws in the system (please refer to the instruction manual of the vehicle for their locations). Leave the bleed screws open until ethylene glycol fluid starts coming out of them, and then close them. Start the circulation pump and let it run for a while. See if the pipes and radiators are heating up around the vehicle. If this does not help, you can try the following method:  
**Single-axle caravan.** Switch off the circulation pump. Tilt the caravan forwards. Leave it in this position for a few minutes to allow the air to travel upwards in the system. Open the bleed screw located at the highest point. Leave it open until ethylene glycol fluid comes out. Proceed in the same manner but with the caravan tilted backwards. Then position the caravan horizontally and start the circulation pump. See if the pipes and radiators are heating up around the vehicle.  
**Motor caravan or twin-axle caravan.** On these, the easiest way to bleed the system is to park the vehicle on sloping ground or to raise one end of the vehicle using a jack. Bleed the system as described above.  
**NB!** Ensure that the system is vented properly. Use the air vents that are located throughout the system. Risk of overheating if the system is not sufficiently vented.

## 13. IMPORTANT INFORMATION

- Always switch off the main isolating switch for the boiler when the vehicle is not in use.
- When washing the vehicle, do not spray water directly towards the flue.
- When camping in winter conditions, ensure the flue and exhaust air valves are kept clear of snow and ice.
- The vehicle may be heated even if the hot water heater is not filled with freshwater.
- The LPG boiler and electric element may be operated simultaneously. It does not use more power than necessary.
- Always drain the hot water heater of fresh water when there is a risk of frost and when the vehicle is not being used.
- The LPG boiler must not be in operation when refuelling the vehicle at a garage or similar.
- Never allow the heating system to stand empty of ethylene glycol fluid.

**NB!** Close the main LPG valve in the following circumstances.

- When the vehicle is not being used
- Depending on national legislation in the country you are in, the main LPG tap must be closed when the vehicle is in traffic.
- When repairing the boiler.
- When leaks in the LPG system are suspected

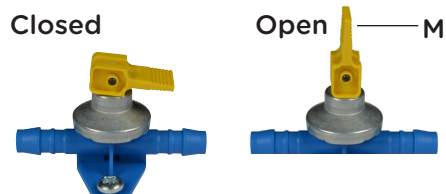
## 14. WARRANTY

Alde's warranty is valid for two years from date of delivery and is restricted to defects of material or manufacture. It is conditional on the boiler having been installed and operated in accordance with the installation and operating instructions.

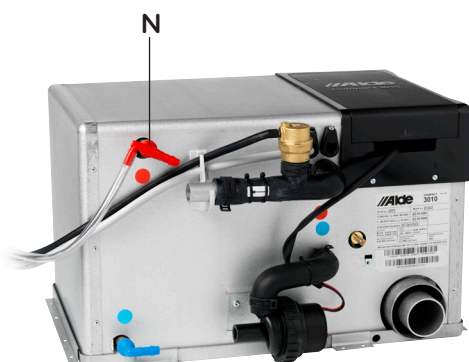
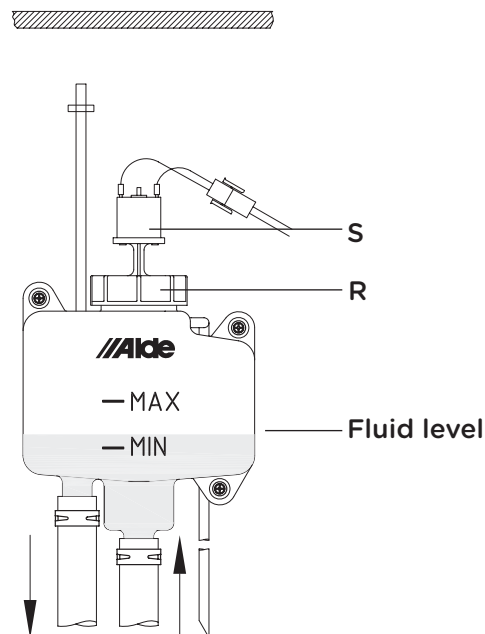
**NB! The warranty does not cover frost damage.**

**NB! Only original parts from Alde are to be used as spare parts.**

Opening manual safety valve/drain valve



Opening automatic safety valve/drain valve

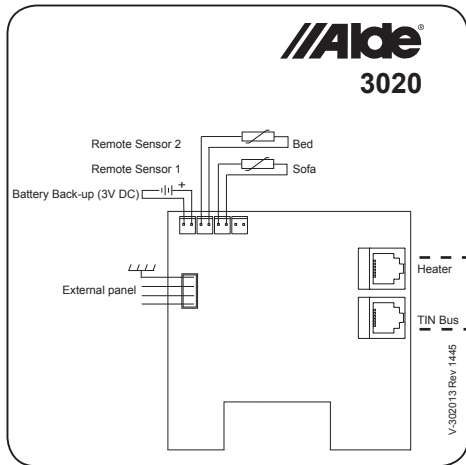


## 15. CABLE CONNECTOR COMPACT 3020 HE AND CONTROL PANEL 3020 HE

Connect accessories to the boiler and control panel as shown in the diagram below.

**NB!** Do not clamp 12 V cables or sensor cables together with 230 V cables. It is best not to position the cables close to one another. If the cables are bundled together, there is a greater risk of malfunction during operation.

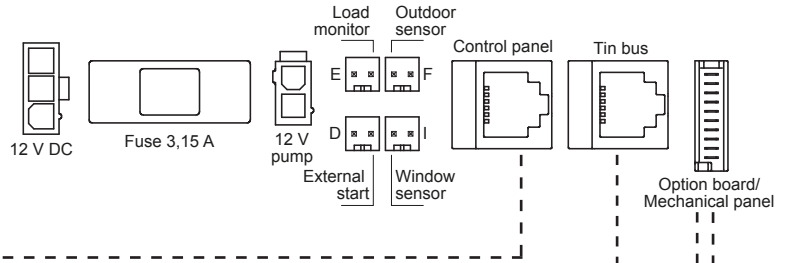
### Control panel rear



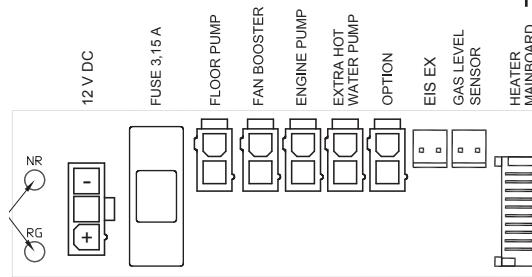
\* The automatic climate control functions with:

- Truma Aventa comfort
  - Truma Aventa eco
  - Truma Saphir comfort RC
  - Truma Saphir compact (serial no. > 23091001)
- Saphir compact needs a Truma adapter 40090-69300.

### Circuit board on Compact 3020 HE



\*Truma AC is connected to one of the TIN Bus connectors.



### Optional board for Compact 3020 HE



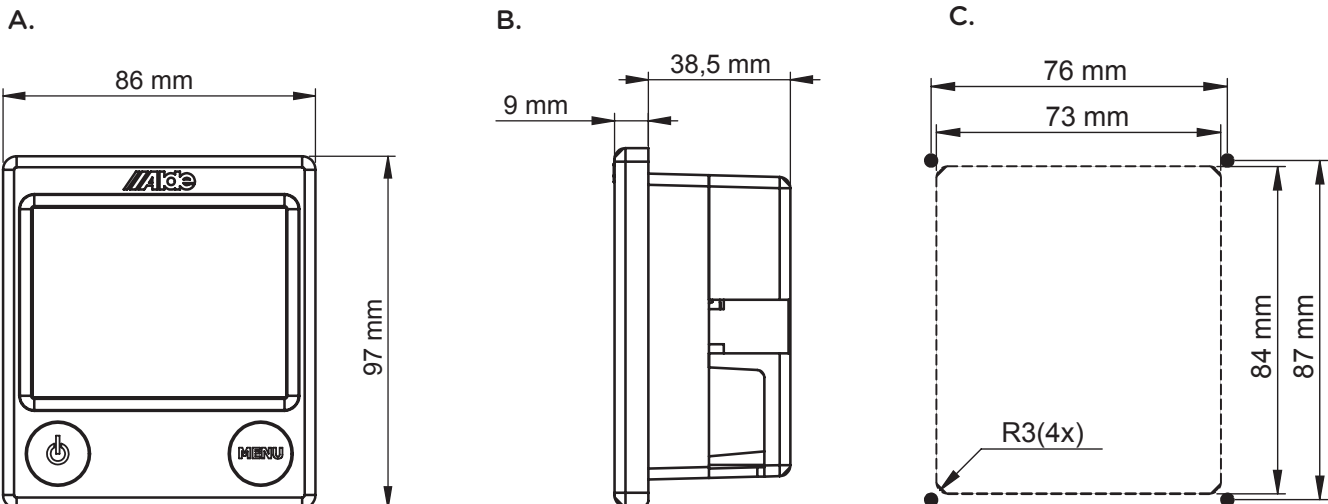
Mechanical panel 3010 214

## 16. INSTALLATION INSTRUCTIONS - CONTROL PANEL 3020 HE

Control panel 3020 HE is intended for the Alde Compact 3020 High Efficiency.

The control panel should be located at least one metre above the floor, but not too close to the ceiling. Nor should it be located on an outer wall or close to items which radiate heat, such as a CD player, refrigerator or lamps, as this may result in incorrect temperatures. The space behind the panel should be well ventilated. If the room thermostat on the panel is still affected, an external sensor should be connected to the panel.

Make a hole for the control panel as shown in Figure C. Screw the control panel securely in place and push the front cover into position. Secure the cable with clamps to prevent any strain on the terminal strip of the panel.









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