

User Operating Instructions for Atmos InterCombi HE32 Condensing Boiler

First ask your installer to instruct you thoroughly about filling, de-aerating and general use of the appliance and the total installation.

General operation

The Atmos InterCombi wall-mounted gas boiler is a balanced flue appliance, designed for delivering heat to the water of a central heating system and domestic hot water. The Atmos InterCombi wall-mounted gas appliance is a modulating high efficiency (Sedbuk A) boiler. This means that the power is adjusted to the heat demand. In the aluminium heat exchanger, two separate copper circuits have been integrated. Because of the separated circuits for central heating and hot water, the heating and the hot water supply can operate independently of each other. However, they cannot work simultaneously. The hot water supply has priority over the central heating. The appliance has been provided with an electronic burner controller that controls the fan with the heat demand from the heating system or the hot water supply, opens the gas valve and ignites the burner, continuously monitors the flame and controls it dependent on the power required.

Central Heating (CH) operation

If the room temperature is below the room on/off thermostat temperature and there is no hot water demand, the boiler will switch to CH operation. The controller adjusts the fan speed, and hence the heating power, according to the set CH supply water temperature, the latter being displayed on the temperature display (during CH operation and adjustable between 30 and 90 °C, using + / - buttons). The appliance circulation pump has an overrun time of 1 minute (factory setting, but can be adjusted) to dissipate the heat. Also, the pump will automatically run once every 24 hours to prevent it from getting stuck (if there is no CH operation).

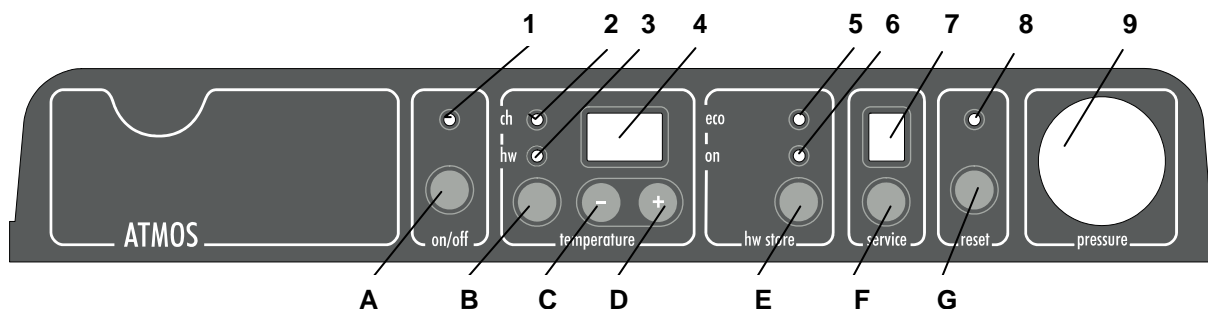
Domestic hot water (HW) operation

Domestic hot water operation will automatically start as soon as more than 2 l/min hot water is demanded. During hot water operation, CH operation is interrupted. The appliance pump does not run for HW operation.

During hot water operation, the hot water set temperature is displayed on the temperature display (adjustable between 40°C and 65°C, using + / - buttons). For a quick supply of domestic hot water, a comfort function has been provided in the controller. This function keeps the heat exchanger at the correct temperature. This comfort function can be set using the *hw store* button (E) and has the following settings:-

- **Off:** (Both LED's 5 & 6 off.) The heat exchanger is not kept warm, delaying the supply of domestic hot water. When there is no requirement for domestic hot water, the comfort function can be switched off.
- **On:** (LED 6 on) The comfort function of the appliance is continuously activated. The appliance always supplies domestic hot water immediately.
- **Eco:** (LED 5 on) The comfort function is self-learning. The appliance is inactivated during the night or after a long absence. The appliance adjusts to the user pattern of the domestic hot water requirements. The Eco mode is the most efficient hot water method and should normally be used.

The Atmos InterCombi boiler has the CE quality mark and an IP44 enclosure. The boiler delivers 9 litre per minute at 60°C (this corresponds to 15 litre per minute at 40°C). This means that a 120 litre bath can be filled with hot water at 40°C within 8 minutes.



Displays

- | | |
|------------------------|----------------------------|
| 1. On/Off LED | 6. Comfort function On LED |
| 2. CH LED | 7. Service display |
| 3. Hot water LED | 8. Fault LED |
| 4. Temperature display | 9. CH pressure gauge |
| 5. Eco mode LED | |

Controls

- | | |
|-------------------------------|-------------------|
| A. On/Off button | E. Comfort button |
| B. CH/Hot water switch button | F. Service button |
| C. - button | G. Reset button |
| D. + button | |

Operating conditions on the service display (7):

- | | | |
|---|--|---|
| <input type="checkbox"/> Off (frost protection active) | <input type="checkbox"/> 2 Self-test | <input type="checkbox"/> 5 CH operation |
| <input type="checkbox"/> Stand-by | <input type="checkbox"/> 3 Fan | <input type="checkbox"/> 6 Domestic hot water operation |
| <input type="checkbox"/> 0 Pump overrun CH | <input type="checkbox"/> 4 Ignite burner | <input type="checkbox"/> 7 Heating the appliance (heat exchanger) |
| <input type="checkbox"/> 1 Required temperature reached | | |

When the red fault LED (above the Reset button) is on, the burner controller has detected a fault. In the service display, a flashing fault code appears.

Commissioning

The appliance should be installed and commissioned by an authorised installer. Check the following:-

Never connect the appliance to the mains voltage without filling and de-aerating the appliance, CH system and hot water system.

1. Confirm that the appliance and system have been filled and de-aerated. The water pressure in the CH system should be minimum 1 bar and maximum 2 bar for a cold system (by reading the CH pressure gauge on the display; see 9 in the diagram).
2. Check that the electrical supply is switched on and the gas supply is on.
3. Set the room thermostat lower than the room temperature. Assuming that the appliance is in standby (horizontal mark on the *service* display and remaining functions are off), switch on the appliance with the *on/off* button on the display. If the domestic hot water comfort function is switched to "on" or "eco", the appliance will heat up the heat exchanger automatically (3, 4, 7 on the *service* display).
4. Set the room thermostat higher than the room temperature. The appliance will start CH operation (5 on the *service* display), heating the CH supply water to the set temperature (see CH operation). The set temperature can be adjusted (lower in case of mild weather, higher if the outside temperature gets colder).
Note: If an Open Therm thermostat is used, or if weather dependent control is used, these settings do not have to be adjusted manually.

Solar Hot Water System

The InterCombi can be used with an Atmos solar hot water system to provide pre-heated water to the appliance. The temperature of the domestic hot water should not be set below 60°C.

Frost protection

In order to avoid freezing of the condensate discharge pipe, the appliance should be installed in a frost-free room. In order to avoid freezing of the appliance (heat exchanger), it has an appliance frost protection. When the temperature of the heat exchanger drops to 5°C, the burner will be activated and the pump will start running until the temperature of the heat exchanger reaches 10°C. When the system (or a part of it) can freeze, a frost thermostat should be installed in the area to be protected. Connect this according to the wiring diagram (see also the Installation instructions).

Note!

The external frost thermostat is not active when the appliance has been switched off at the operating panel or when the mains voltage has been interrupted.

Faults

If one of the following simple faults occur, they may be remedied as follows. In case of recurrence, or other faults, please contact your installer.

The CH System does not reach the correct temperature:-

- Increase the temperature on the room thermostat.
- Open the radiator valves.
- Increase the CH water temperature by means of the CH / HW switch button and the + and – button on the display.
- De-aerate the appliance and the radiators and check the pressure gauge on the display is between 1 and 2 bar (for a cold system).

The hot water does not heat up:-

- Open up the hot water tap further.
- Increase the hot water temperature by means of the CH / HW switch button and the + and – button on the display.

The fault LED above the *Reset* button lights up and the *service* display flashes with code 0, 1, 2 or 3:-

The boiler is getting too hot, due to insufficient circulation.

- Open the radiators, de-aerate the appliance and installation and check the CH water pressure. Fill up if necessary.

After remedying the cause, press the *Reset* button for 5 secs and the appliance will start-up again.

Filling and de-aerating the appliance and installation

Note: Switch off the electrical supply to the appliance until this has been completed.

CH-system:

In order to obtain a proper functioning CH system, the pressure should be between 1 and 2 bar for a cold system. If the pressure is too low, the installation has to be filled. Proceed as follows:-

Check that the filling hose is connected below the appliance (connects between the cold water inlet pipe and the CH return pipe).

Normally the hose tap from the CH return is left open and the hose tap from the cold water is left closed. Open the latter tap.

Fill the appliance and CH system with clean tap water.

De-aerate the appliance using the manual air vent (needs a vent key to open) situated on the left hand on top of the appliance (or, alternatively, if an automatic air vent has been fitted, check that the cap on top of the valve is loosened).

De-aerate the installation using the manual air vents on the radiators and/or a de-aerate valve in the pipes. Fill the appliance and CH system up to a pressure between 1 and 2 bar for a cold system and then close the cold water hose tap. Check for any leaks.

If filling is necessary more than a few times a year, please contact your installer **Note: The corrosion inhibitor will become diluted.**

Hot water supply:

De-aerate the system by opening a hot water tap. Keep the tap open until all the air has left the system. Check the pipes and connections for leaks.

System Shutdown

Drain the appliance and the system when the mains voltage has been disconnected and there is a chance of freezing.

1. Drain the appliance using the filling/drain tap.
2. Drain the system at the lowest point.
3. Close the main valve for the cold water supply to the boiler.
4. Drain the appliance by disconnecting the domestic hot water connections underneath the appliance or opening hot water taps.

Servicing the appliance

The appliance, the installation, the flue discharge and air supply should be serviced every year by a qualified service engineer. The appliance can be cleaned with a damp cloth. Do not use any aggressive or sanding cleaner.

Guarantee

Atmos guarantees the heat exchanger for 5 years as detailed in the Installation Manual, and other parts for 2 years (except ignition probe, ionisation pin, glass fuse, thermocouple and de-aerator) including labour. The provision of service and the execution of the guarantee is the responsibility of the installer from whom you purchased the appliance. See also the Guarantee card.