



ELU and EFTU Appliances

Programming Guide

WARNING
This guide is not intended to replace the appliance installation or user's information manuals. Read all instructions in the installation and user's information manuals before installing. Failure to do so could void product warranty and cause property damage, severe personal injury, or death.

NOTICE
The manufacturer reserves the right to make product changes or updates without notice and will not be held liable for typographical errors in literature.

Part 1 - Quick Display Overview

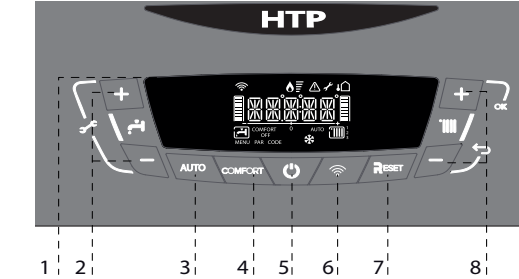


Figure 1 - Control and Display Overview

| Item # | Description |
|--------|-----------------------------------------------|
| 1 | Display |
| 2 | Domestic Hot Water Adjustment Button +/- |
| 3 | Automatic Temperature Control |
| 4 | COMFORT Button (Not Active on ELU WBN Models) |
| 5 | ON / OFF Button (see NOTICE below) |
| 6 | WiFi Button |
| 7 | RESET Button |
| 8 | Heating Temperature Adjustment Button +/- |

Table 1 - Control Descriptions

| NOTICE | |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| On / Off Button | Operating Description |
| | The button lights (white) when the boiler is electrically powered. |
| | The button is not lit in the event of an error or power failure. |
| | RESET BUTTON The button lights (red) in the event of a lockout error. After pressing the Reset button to clear an error condition, the button will flash for five (5) seconds. |

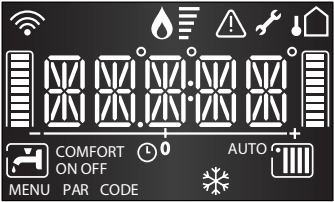


Figure 2 - Powering On the Boiler

| Display Icon | Description |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Digits Indicating: <ul style="list-style-type: none">Boiler StatusTemperature (°F) with bar levelError Codes (ERROR)Press Reset Button Request (RESET) (boiler lockout)Menu Settings |
| | Technical assistance request |
| | Flame detected with indication of power used |
| | CH Heating Operation Set |
| | CH Heating Operation Active |
| | DHW Operation Set |
| | DHW Operation Active |
| COMFORT | Hot Water Comfort Activated (Combi Only) |
| OFF | Boiler off with Antifreeze Function Active |
| | Antifreeze Function Active |
| AUTO | Automatic Temperature Control activated |
| | Error signal - Display will also show a code and description |
| | Outdoor Sensor Connected - Optional NOTE: If the outdoor sensor is not connected this symbol will flash. |
| | WiFi Active |

Table 2 - Display Icon Descriptions

Part 2 - Powering On the Appliance - Quick Temperature Adjustment

Press the ON/OFF button on the control panel to power on the boiler. The display shows the current operating mode.



Operating Mode

| Description | Display | Description | Display |
|-----------------------------------------|---------|----------------------------------|---------|
| Stand-by | | Purging Cycle | |
| CH request supply temperature displayed | | Central Heating Post Circulation | |
| DHW request DHW setpoint displayed | | DHW Circuit Post Circulation | |

A. Central Heating (CH) Temperature Adjustment

To adjust the central heating (CH) temperature setpoint from the home screen press the CH +/- buttons. See Figure 3. The allowable operating range is limited by the Max and Min Temperature Settings (e.g., Parameters 4.2.5 and 4.2.6) which are adjustable via the Technical Menu.



Figure 3 - Central Heating (CH) Temperature Adjustment

NOTE: When set to AUTO - Automatic Temperature Control (e.g., Outdoor Reset), the CH Temperature Setpoint is calculated in accordance with the type of automatic temperature control selected.

The resulting setpoint can be shifted up or down via the Parallel Shift function by pressing the CH +/- buttons from the home screen.

With the first press of the CH + or - button, the display shows the current CH target temperature (e.g., 130°F).

After a 3-5 second delay, the display begins flashing the current offset (Parallel Shift) setting. Subsequent CH + or - button presses adjusts the offset up or down.

After a few seconds the display shows the new CH target temperature (e.g., 138°F), then returns to the home screen.



B. Domestic Hot Water (DHW) Temperature Adjustment

Not Applicable to Non-Combi Models using an Aquastat

To adjust the domestic hot water (DHW) temperature setpoint from the home screen press the DHW +/- buttons. See Figure 4. The DHW temperature range is 97 - 140°F. The previously set value will flash on the display.

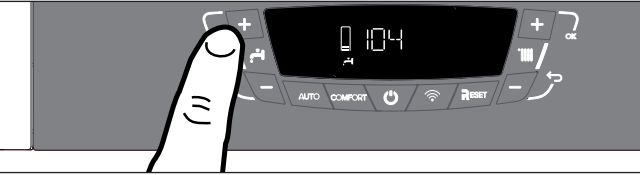


Figure 4 - Domestic Hot Water (DHW) Temperature Adjustment

DANGER
Hotter water increases the risk of scald injury. Scalding may occur within five (5) seconds at a setting of 140°F. Water temperature over 125°F can instantly cause severe burns or death from scalds. Children, disabled, and elderly persons are at the highest risk of being scalded. See instruction manual before setting temperature at the appliance. Feel water before bathing or showering.

| Approximate Time / Temperature Relationships in Scalds | |
|--------------------------------------------------------|---------------------|
| 120°F | More than 5 minutes |
| 125°F | 1 1/2 to 2 minutes |
| 130°F | About 30 seconds |
| 135°F | About 10 seconds |
| 140°F | Less than 5 seconds |
| 145°F | Less than 3 seconds |
| 150°F | About 1 1/2 seconds |
| 155°F | About 1 second |

Table 3 - Time and Temperature Relationship in Scalds

WARNING
An ASSE 1017 or ASSE 1070 temperature limiting or mixing valve is recommended in installations servicing disabled or elderly persons, or children. Mixing valves do not eliminate the risk of scalding.
To avoid scalding:

- Set the water heater set point temperature as low as possible.
- Feel water before bathing or showering.
- If thermostatic valves are required, use devices specifically designed for such purpose. Install these devices in accordance with instructions provided by the manufacturer.

Failure to install a temperature limiting or mixing valve and follow these instructions could result in property damage, severe personal injury, or death due to scalds.

NOTE TO CONSUMER: PLEASE KEEP ALL INSTRUCTIONS FOR FUTURE REFERENCE.

Part 3 - Quickly Engage / Disengage Automatic Temperature Control (AUTO)

The Automatic Temperature Control (AUTO) function allows the boiler to automatically adjust the target temperature of each heating zone to adapt to outdoor and/or indoor temperature conditions and/or heat demand cycles.

To quickly activate AUTO, press the AUTO button on the control panel, or set parameter 2.2.4 = 1 via the technical menu.

NOTE: Automatic Temperature Control is only possible when the AUTO function is turned ON.

Then select the type of Temperature Control via parameters 4.2.1 (Zone 1), 5.2.1 (Zone 2), or 6.2.1 (Zone 3). The default setting for each zone is 3 - Outdoor Temp. Reset.

NOTICE

In order for the boiler to detect changes in room temperature it is necessary to install an HTP Room Sensor. Other thermostats (not HTP) can only switch the boiler ON and OFF.

Part 4 - Quickly Engage / Disengage the Comfort Function (Combi Models ONLY)

Activating the COMFORT function keeps the DHW heat exchanger temperature warm when a DHW demand is not active. This reduces the amount of time it takes for the combi boiler to meet a hot water demand. COMFORT will display when this function is active.

To quickly activate the Comfort function press the COMFORT button on the control panel.



Figure 5 - Engaging AUTO Mode



Figure 6 - Engaging Comfort Function

WARNING

The settings in Parts 5 and 6 must only be adjusted by a qualified service technician. Failure to follow these instructions could lead to improper operation and can cause a potentially hazardous situation which could result in serious injury or death.

Part 5 - Quickly Initiate Test Mode

TEST Mode can also be activated by pressing the Reset button for 10 seconds. Test Mode deactivates after 30 minutes or by pressing Reset. See Figure 7.

WARNING! When the Test Function is activated the temperature of the water coming out of the boiler may be more than 150°F.



Figure 7 - Engaging Test Mode

Adjusting the CO2 at Maximum Gas Flow Rate (High Fan Speed)

TEST and the bar graph icon will appear on the display when Test Function is active. The boiler will operate at maximum heating power.

Press the + button to operate the boiler at the maximum power. The bar graph icon will display. See Figure 8.

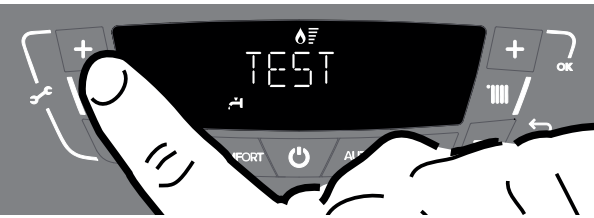


Figure 8 - Test Mode High Fire

Checking the CO2 at Minimum Gas Flow (Low Fan Speed)

With the Test Function active, press the - button to operate the boiler at minimum DHW power. The bar graph icon and the flame icon will display. See Figure 9.



Figure 9 - Test Mode Low Fire

Part 6 - Accessing and Navigating the Technical Menu

To access advanced setup and troubleshooting parameters, it is necessary to enter the Technical Menu. The Technical Menu includes a number of Quick Access Menus which allow easy access to commonly used parameters. Proceed as follows to access the Technical Menu.

1. Simultaneously press the "+" and "-" buttons for 5 seconds.
2. The display shows 222.
3. Press the "+" button to select 234, the service code.
4. Press the OK button. The display shows the first "quick setting" PCB. Use the "+" and "-" buttons to scroll through the Quick Access Menu options.



| Quick Access Menu Options | |
|---------------------------|-------------------------|
| PCB | PCB Replacement |
| ERR | Error History |
| MENU | Complete Menu |
| DHW | DHW Settings |
| CH1 | Heating Zone 1 Settings |
| CH2 | Heating Zone 2 Settings |
| CH3 | Heating Zone 3 Settings |
| MODE | DHW / CH / Both |
| BMS | 0-10V / 4-20mA Clip-In |

From the Quick Access Menus "DHW" and "CH1", set the following parameters to match your application:

| Quick Access Menu | Parameter | Description | Value | Default |
|-------------------|-----------|-----------------------------|-----------------------------------------------------------------------------------------|----------------------|
| DHW | 2.2.8 | DHW Mode | 0 = All Combi (WCN) Models 1 = Storage with Tank Sensor 2 = Storage with Aquastat | WCN = 0 WBN = 2 |
| CH1 | 4.2.0 | Temperature Range | 0 = Low Temperature (LT 68-122°F) 1 = High Temperature (HT 86-179°F) | 1 (HT) |
| | 4.2.5 | Maximum Temperature Setting | 68-122°F (when 4.2.0 = 0) 86-179°F (when 4.2.0 = 1) | 120 (LT) 179 (HT) |
| | 4.2.6 | Minimum Temperature Setting | 68-122°F (when 4.2.0 = 0) 86-179°F (when 4.2.0 = 1) | 80 (LT) 120 (HT) |

5. When the display shows the Quick Access Menu you want to enter, press the OK button.
6. Use the "+" or "-" buttons to navigate through the parameters within the selected Quick Access Menu.
7. With the display showing the parameter you want to adjust, press the OK button to access the parameter setting.
8. Use the "+" and "-" buttons to modify the setting.



9. With the parameter set to the desired value, press OK to save and return to the given Quick Access Menu. To exit without saving, press the "-" button.
10. Press the "-" button to return to the previous menu level.
11. Navigate to another Quick Access Menu, or press the "-" button until the normal display screen is restored to exit the Technical Menu.



NOTICE

See installation manual for the full list of appliance parameters.