TRX and FTVN 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.
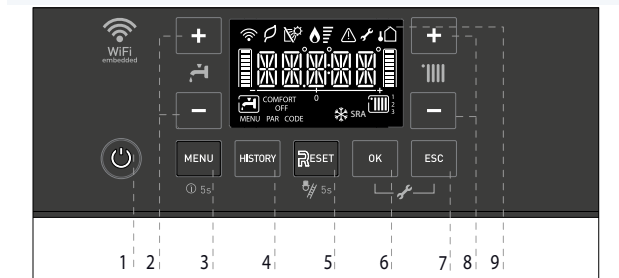
Part 1 - Quick Display Overview

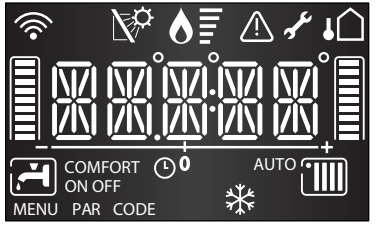**Figure 1 - Control and Display Overview**

Item #	Description
1	ON / OFF Button (see NOTICE below)
2	Domestic Hot Water Adjustment Button +/-
3	MENU (short press = User Menu); (long press = Info Menu)
4	HISTORY Button - view last 10 errors
5	RESET Button (see NOTICE below)
6	OK – confirms menu selection
7	ESC – exits menu selection
8	Heating Temperature Adjustment Button +/-
9	Display

Table 1 - Control Descriptions

NOTICE

Operating Description

⏻	**On / Off Button** The button lights (white) when the boiler is electrically powered.
⏻	**On / Off Button** The button is not lit in the event of an error or power failure.
RESET	**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.

Display Icon	Description
🔢	Digits Indicating: • Boiler Status • Temperature (°F) with bar level • Error Codes (ERROR) • Press Reset Button Request (RESET) (boiler lockout) • Menu Settings
🔧	Technical assistance request
🔥	Flame detected with indication of power used
IIII	CH Heating Operation Set
IIII	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
☀	Solar inlet temperature probe connected - Optional
⚠	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

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

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.

Figure 2 - Powering On the Boiler

Operating Mode

Description	Display	Description	Display
Stand-by		Purging Cycle	PURGE
CH request supply temperature displayed	100°	Central Heating Post Circulation	95°
DHW request DHW setpoint displayed	104°	DHW Circuit Post Circulation	104°

A. Central Heating (CH) Temperature Adjustment

It is possible to adjust the central heating (CH) temperature setpoint from the home screen by pressing the CH +/- buttons. See Figure 3.

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.

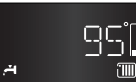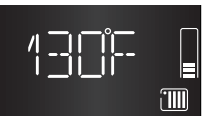The resulting setpoint can be shifted up or down via the Parallel Shift function by pressing the CH +/- buttons from the home screen.
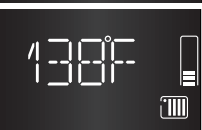
With the first press of the CH + or - button, the display shows the current CH target temperature (e.g., 130°F).

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.
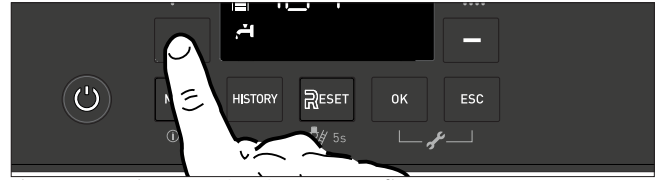
Figure 4 - Domestic Hot Water (DHW) Temperature Adjustment

⚠ 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.

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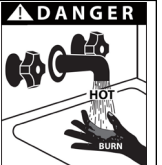
Approximate Time / Temperature Relationships in Scalds	
120°F	More than 5 minutes
125°F	1 1/2 to 2 minutes
130°F	About 30 seconds
135°F	About 10 seconds
140°F	Less than 5 seconds
145°F	Less than 3 seconds
150°F	About 1 1/2 seconds
155°F	About 1 second

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.

Part 3 - User Menu

Press the MENU button to open the user menu.

To navigate within the menu or parameters, press the **+** and **-** buttons (or   ).

To change a parameter, select it by pressing the OK button.

To change the set value, press the **+** and **-** buttons (or   ).

Press the OK button to save.

To exit without saving the changes, press the **ESC** button.

Figure 9 - Access user menu

Part 4 - Info Menu

Press the MENU button for 5 seconds to access the **INFO** menu, navigate within the **INFO** menu with + and - (both possible,   or   ).

Figure 8 - Access Info menu

Attention: No values can be changed here, only information can be read! Changes can only be made in the user menu or in the specialist area.

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 5.**

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

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

TEST and the   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   icon will display. See Figure 6.

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   and   icons will display. See Figure 7.

Figure 5 - Engaging Test Mode

Figure 6 - Test Mode - High Fire

Figure 7 - Test Mode - Low Fire

Activate change by pressing the **OK** button. **+ / -** buttons scroll through and change values. Press **OK** button to confirm a change. Press **ESC** to return without change.

1.	**I-NET**
2.	**Date and Time (Only visible when ITIME is set to OFF)**
3.	**DHW Comfort Function (Only applicable with Combi models)**
4.	**Time programs – DHW Comfort Function (Only visible with Combi models - Not Operable)**
5.	**Automatic C.H. temperature control / AUTO function**
6.	**Room temperature Day only applicable if using NTI room sensor(s)**
7.	**Room temperature Night only applicable if using NTI room sensor(s)**
8.	**Time programs – heating schedule only applicable if using NTI room sensor(s)**
9.	**Outdoor Reset Curve Slope** (only with AUTO function active)
10.	**Outdoor Reset Curve Parallel Shift** (only with AUTO function active)
11.	**Automatic summer / winter changeover**
12.	**Summer / winter changeover temperature**

Table 4 - User Menu

Info Menu	Parameter	Description
01.	8.5.7	Floor drying remaining days (with Floor Drying function active)
06.	8.3.1	Supply water temperature [°F]
07.	8.3.2	Return water temperature [°F]
08.	8.3.3 / 8.4.0	DHW outlet or storage temperature [°F]
09.	8.3.5	Outdoor temperature [°F]
10.	8.3.4	Exhaust flue temperature [°F]
11.	8.7.8	Burner power level [%]
12.	4.3.0/5.3.0	Room temperature [°F] (only with NTI Room Sensor connected) (Zone 1/2)
13.	8.2.5	DHW flow rate [gpm] (Combi Models only)
18.	8.2.2	Actual fan speed [RPM/10]
20.	8.7.9	Burner flame signal

Table 5 - Info Menu

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. The Quick Access Menu option, "MENU", provides access to all parameters. Instructions on how to access and change the menus are provided below.

The menu and parameter numbers are shown on the display.
CAUTION! THE MENUS RESERVED FOR QUALIFIED TECHNICIANS MAY ONLY BE ACCESSED AFTER ENTERING THE ACCESS CODE.

Proceed as follows to access the Technical Menu. (in this example: Parameter **2.3.1**).

1. Simultaneously press the **OK** and **ESC** buttons for 5 seconds. The display shows **222.**

2. Press the **"+"** button to select **234,** the service code.

3. Press the **OK** button. The display shows **MENU.**

4. Press the **OK** button. The display shows menu **0**.

5. Press the **"+"** button to select menu **2**.

6. Press the **OK** button to access the menu. The display shows sub-menu **20**.

7. Press the **"+"** button to select the sub-menu **23**.

Quick Access Menu Options	
MENU	Complete Menu
PCB	PCB Replacement
ERR	Error History
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

9. Press **OK** to access the sub-menu. The display shows the parameter **231**.

10. Press **OK** to access the parameter. The display shows the current parameter value. In this example, **100**.

11. Press the **"+"** or **"-"** buttons to select a new value.

12. Press **OK** to save the change, or press the **ESC** button to exit without saving. In this example press OK.

After making changes, press the **ESC** button until the normal display screen is restored.

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 (Combi Models) 1 = Storage with Tank Sensor 2 = Storage with Aquastat	Combi = 0 Boiler = 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)
		Parameter 4.2.5 sets the maximum allowable boiler operating temperature for Zone 1 heating, limiting Automatic Temperature Control and manual adjustment from the User Menu.		
	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)
		Parameter 4.2.6 sets the minimum allowable boiler operating temperature for Zone 1 heating, limiting Automatic Temperature Control and manual adjustment from the User Menu.		

NOTICE

See installation manual for the full list of appliance parameters.