

# Instinct FSB (Floor Standing Boiler) HMI (Human Machine Interface) Removal



Kit Part Number	Description	Model
INSRKIT128	HMI Replacement	Instinct Floor Standing Models

### Each Kit Includes:

- Display Module with cover

### Recommended Tools:

- Pozidriv Screwdriver
- Flat Head Screwdriver



### WARNING

**Indicates a potentially hazardous situation which, if ignored, can result in serious injury or substantial property damage.**



*Indicates special instructions on installation, operation or maintenance, which are important to equipment but not related to personal injury hazards.*



### WARNING

**For your safety, turn off electrical power supply at service panel and allow unit to cool before proceeding to avoid possible electrical shock and scald hazard. Failure to do so can cause severe personal injury or death.**



### WARNING

**Failure to follow instructions below can result in severe personal injury or damage if ignored.**

- **Instructions are for a qualified installer/service technician only.**
- **Read all instructions before proceeding.**
- **Follow instructions in proper order.**

# Instinct FSB (Floor Standing Boiler) HMI (Human Machine Interface) Removal



## 1. Preliminary Instructions

1. Verify that the replacement kit is correct for the model of boiler.
2. Carefully open and unpack the PARTS BOX from its shipping carton.
3. Carefully remove and check for any damage.

### NOTICE

Installing damaged equipment will cause malfunction of the boiler. Contact Triangle Tube right away if the display module is damaged in any way.

4. Close the manual gas shut off valve to the unit.
5. Turn the power to the boiler off.

## 2. Save Settings

### NOTICE

Prior to replacing the control module and/or display module, it is important to access and document the boiler's settings. This will ensure any settings revised from factory defaults are transferred to the new module(s). Use Table 1 to record the existing settings. Do not revise any settings when recording settings.

1. To access the Installer screen, touching simultaneously the up and down soft keys for 3 seconds as shown in Fig. 1.

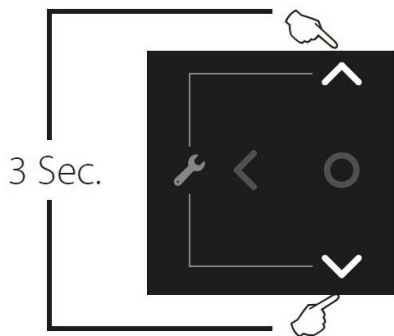


Fig. 1: Installer Button

2. Enter the installer access code "054" by using the **LEFT** and **RIGHT** buttons to select a digit and the **UP** and **DOWN** buttons to change the digit. Press

the OK button to enter the access code.

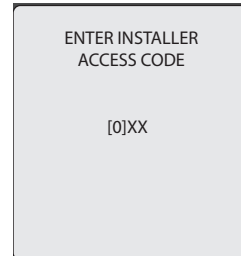


Fig. 2: Installer Access Code

3. Press the OK button while the CH & DHW Settings icon is highlighted.

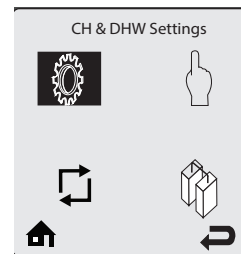


Fig. 3: CH & DHW Settings

4. Press the OK button while the CH Settings icon is highlighted.

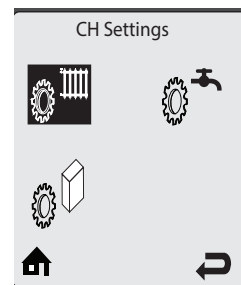


Fig. 4: CH Settings

5. Press the **UP** and **DOWN** buttons to scroll through the various settings.

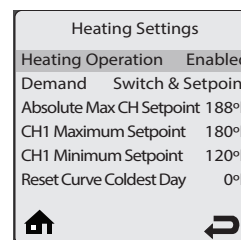


Fig. 5: Heating Settings

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- Record all CH Settings in Table 1. Once completed, press the **RIGHT** button to highlight the Previous Screen icon, then press the OK button.
- Press the **RIGHT** button to highlight the DHW Settings icon then press the OK button.

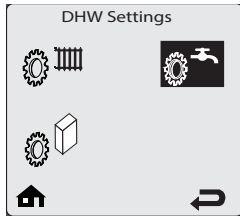


Fig. 6: DHW Settings

- Press the **RIGHT** then **DOWN** buttons to highlight the Cascade icon, then press the OK button.
- Press the **RIGHT** button to highlight the Cascade Settings icon, then press the OK button.
- Press the **UP** and **DOWN** buttons to scroll through the various settings, and record all Cascade Settings in Table 1.

- Press the **UP** and **DOWN** buttons to scroll through the various settings and record all DHW Settings in Table 1. Once completed, press the **RIGHT** button to highlight the Previous Screen icon, then press the OK button.

DHW Settings	
DHW Operation	Enabled
Demand	Switch
Boiler DHW Setpoint	186°F
DHW Storage Setpoint	140°F
DHW On Differential	6°F
DHW Storage Adder	46°F

Fig. 7: DHW Settings

- Press the **DOWN** button to highlight the Boiler Settings icon if present icon, then press the OK button.
- Press the **UP** and **DOWN** buttons to scroll through the various settings and record all Boiler Settings in Table 1. Once completed, press the **RIGHT** button to highlight the Previous Screen icon, then press the OK button.

## NOTICE

Perform the following steps if the Instinct is part of a Cascade System.

- Press the **RIGHT** then **DOWN** buttons to highlight the Previous Screen icon, then press the OK button.

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### 3. Locate and undo the 2 M6 access screws.

1. Locate and undo the 2 M6 access screws

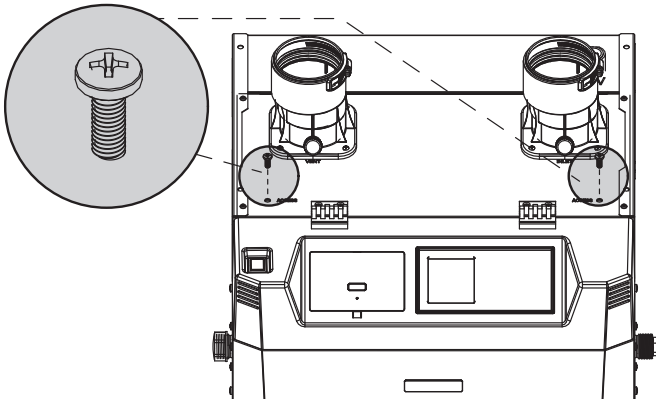


Fig. 8: Access Screws

4. Rotate the HMI Pod down.

5. Remove the 4 M5 Pozidriv screws from the hinges.

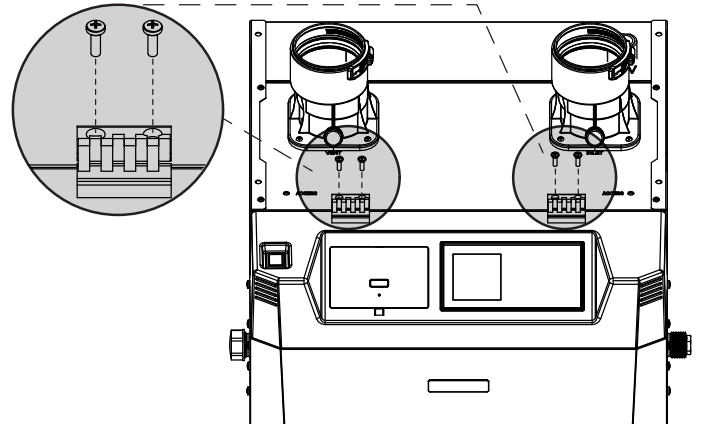


Fig. 10: Hinges

2. Raise the HMI Pod.

3. Disconnect the high and low voltage connectors.

6. Remove the HMI.

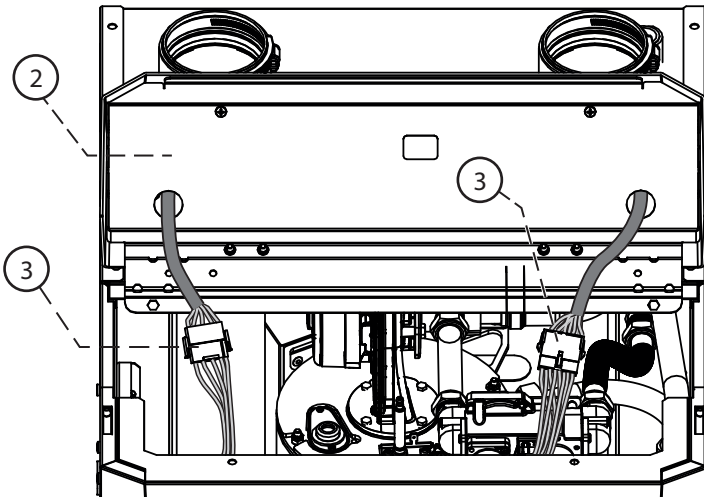


Fig. 9: High and Low Voltage Connectors

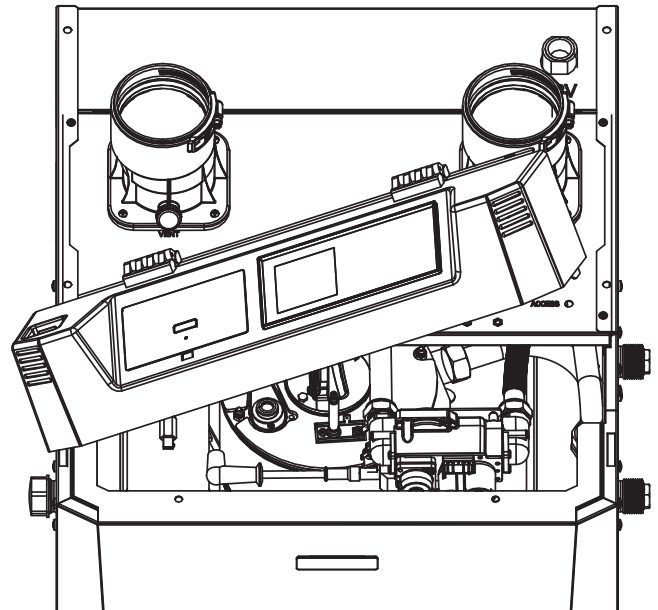


Fig. 11: HMI Removal

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**Be careful when using the flat blade screwdriver. Do not cause damage to the surface of the Wi-Fi Module 21.**

## 4. Remove the Wi-Fi Module 21

1. Locate the Wi-Fi Module 21. Using a flat head screwdriver, carefully ease-out the Wi-Fi Module 21 from either the top or bottom of the module.

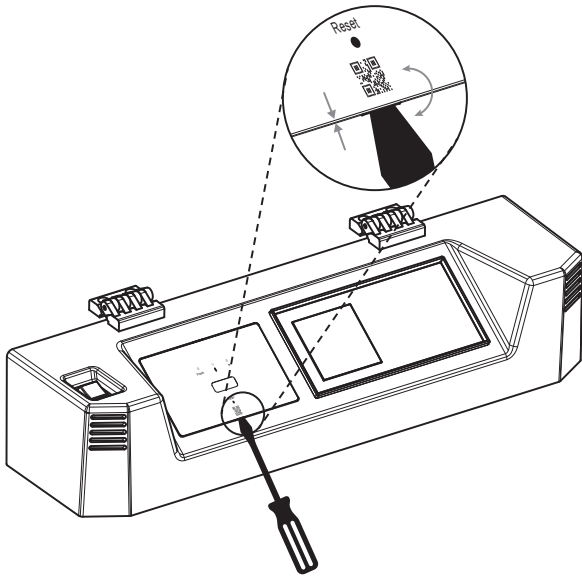


Fig. 12: Wi-Fi Module 21 Removal

2. Remove the Wi-Fi Module 21 and remove the 8 way harness from the aperture. Keep the harness plugged into the Wi-Fi Module 21.

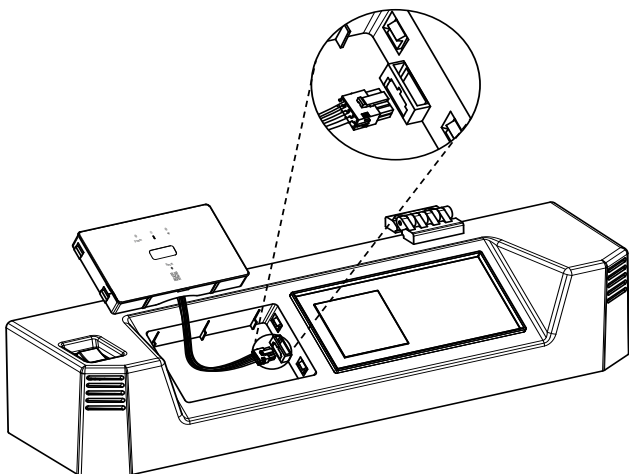


Fig. 13: 8-way harness

## 5. Fitting Wi-Fi Module on replacement HMI.

1. Connect to wire harness to the new HMI as shown in Figure 13.
2. Push the Wi-Fi Module in place, paying attention to the orientation. See Figure 12.

## 6. Fitting replacement HMI.

1. Replace HMI. See Figure 11.
2. Replace the M5 pozidriv screw through the hinge. See Figure 10.
3. Connect the high and low voltage connectors. See Figure 9.
4. Locate and fasten the 2 M6 access screws. See Figure 8.
5. Return power to the boiler.

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## 7. Programming new Display Board

1. Follow the instructions in step 2 to gain access to the installer menu.
2. Go to boiler settings and click appliance setting, as seen in Fig. 14 and Fig. 15.

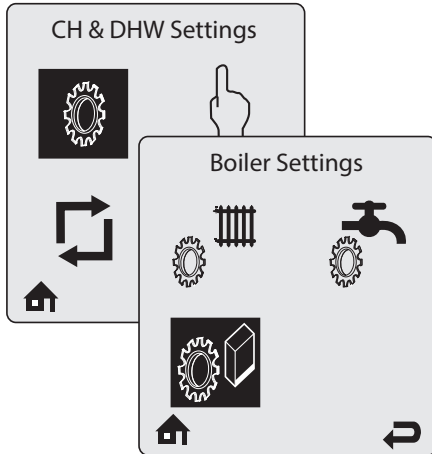


Fig. 14: Installer Menu

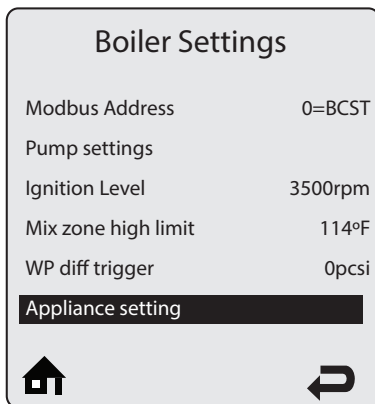


Fig. 15: Appliance Setting

3. The required code is written on the data plate located at the side of the boiler. Use the code for the gas type, either Natural Gas or Propane.
4. Increase/decrease the value (from 0 to 9, then A to Z) using the UP or DOWN keys to, then change position with the LEFT or RIGHT keys.
5. Follow the instructions on the screen to enter the appliance code for your boiler.
6. The boiler will now be factory set for that particular model. Return to step 2 and enter settings recorded in Table 1 back into the controls to return the boiler to the customized settings of the old control.
7. Return to step 2 and enter settings recorded in Table 1 back into the controls.

# Instinct FSB (Floor Standing Boiler) HMI (Human Machine Interface) Removal



Table 1: Controls Settings

HEATING SETTING	FACTORY DEFAULT	MINIMUM SETTING	MAXIMUM SETTING	EXISTING SETTING
Heating Operation	Enabled			
Demand Type	Thermostat & Outd. Curve			
Absolute Max CH Setpoint	185°F [85°C]	68°F [20°C]	188°F [87°C]	
CH1 Maximum Setpoint	180°F [82°C]	68°F [20°C]	188°F [87°C]	
CH1 Minimum Setpoint	80°F [27°C]	60°F [15°C]	188°F [87°C]	
Outdoor Curve Coldest Day	10°F [-12°C]	-30°F [-34°C]	50°F [10°C]	
Outdoor Curve Warmest Day	64°F [18°C]	60°F [15°C]	78°F [25°C]	
CH2 Circuit	Enabled			
CH2 Maximum Setpoint	140°F [60°C]	68°F [20°C]	194°F [90°C]	
CH2 Minimum Setpoint	80°F [27°C]	60°F [15°C]	190°F [88°C]	
Warm Weather Shutdown	Off	Off	78°F [25°C]	
Circulation Pump Permanent	Disabled			
CH Post Pump Time	5 Minutes	Off	20 Minutes	
Freeze Protection	Enabled			
Frost Protection Setpoint	-22°F [-30°C]	-22°F [-30°C]	50°F [10°C]	
Parallel Shift Value	0°F [0°C]	0°F [0°C]	144°F [80°C]	
CH Call Blocking	2 Minutes	0 Minutes	30 Minutes	

DOMESTIC SETTING	SOLO FACTORY DEFAULT	COMBI FACTORY DEFAULT	MINIMUM SETTING	MAXIMUM SETTING	EXISTING SETTING
DHW Operation	Enabled	Enabled			
Demand Type	Thermostat	N/A			
DHW Boiler Setpoint	168°F [76°C]	168°F [76°C]	96°F [35°C]	188°F [87°C]	
DHW Setpoint	140°F [60°C]	140°F [60°C]	68°F [20°C]	168°F [75°C]	
DHW Warmstart Setpoint	N/A	125°F [52°C]	86°F [30°C]	140°F [60°C]	
DHW Warmstart Hysteresis	N/A	30°F [17K]	9K	36K	
DHW On Differential	6°F [3°C]	N/A	4°F [2°C]	18°F [10°C]	
DHW Storage Adder	27°F [15°C]	18°F [10°C]	10°F [5°C]	54°F [30°C]	
DHW Post Pump Time	2 Minutes	2 Minutes	Off	30 Minutes	
DHW Priority Timeout	Off	Off	Off	120 Minutes	
DHW Priority	Enabled	Enabled			
DHW Call Blocking	1 Minute	1 Minute	0 Minute	30 Minutes	
DHW to CH Call Blocking	1 Minute	1 Minute	0 Minute	30 Minutes	
Antilegionella Function	Disabled	Enabled			

# Instinct FSB (Floor Standing Boiler) HMI (Human Machine Interface) Removal



Table 1 Cont:

BOILER SETTING	FACTORY DEFAULT	MINIMUM SETTING	MAXIMUM SETTING	EXISTING SETTING
Lockout Temp.	210°F [99°C]			
Modbus Address	0=BCST	0=BCST	247	
Flex. Relay 1(CH)	CH1			
Flex. Relay 2(DHW)	DHW			
Flex. Relay 3(P3)	CH1/CH2/DHW			
Flex. Relay 4(ERR)	ERROR			
Flex. Relay 5(Flame)	FLAME			
Flex. Relay 6(P4)	CH2			
Error Relay	On Lockout, Blocking and Warning			
Pump PWM Minimum	30%	1%	100%	
Ignition Level	Varies by model			
Mix Zone High Limit	114°F [45°C]	68°F [20°C]	176°F [80°C]	
Appliance Setting	Varies by model			
Altitude Setting	0 ft	0 ft	20,000 ft	