BRADFORD WHITE®

W A T E R   H E A T E R S

Infiniti® GR Series Tankless (Condensing) Gas Water Heater

START-UP GUIDE

Start-up Guide and Instructions for Installation

(To be performed ONLY by qualified service providers)

Models Covered by This Manual:

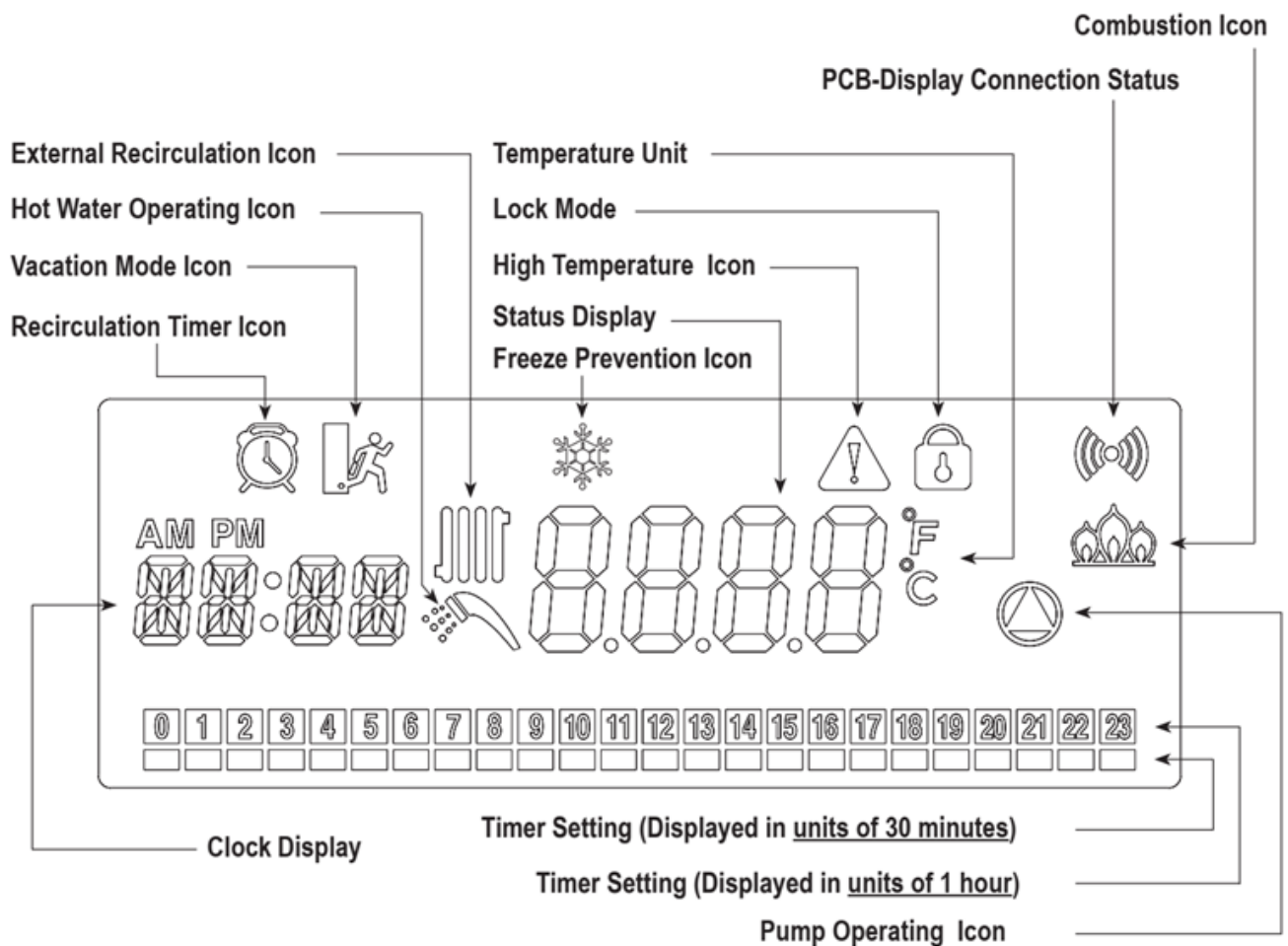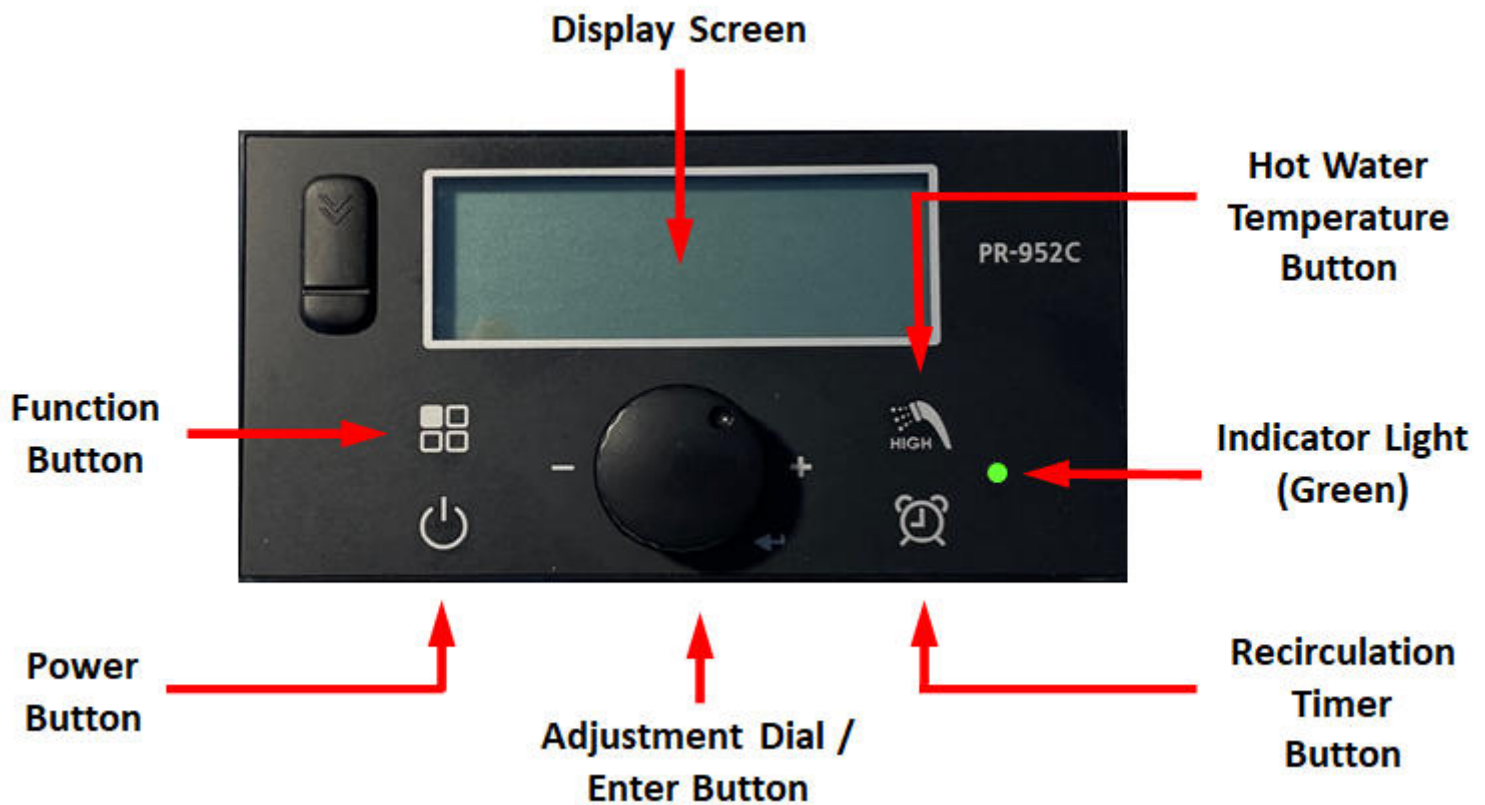| Natural	Propane
RTG-R-199-N1	RTG-R-199-X1

TRAINING AND SERVICE INFORMATION
This document is restricted to exclusive use by the official service partners.

This document is not a substitute for the Installation Manual.

⚠ **WARNING**
CANCER AND REPRODUCTIVE HARM
WWW.P65WARNINGS.CA.GOV

As required by the state of California Proposition 65.

Recirc Model Display

Display Screen

Hot Water Temperature Button

Function Button

Indicator Light (Green)

PR-952C

Power Button

Adjustment Dial / Enter Button

Recirculation Timer Button

HIGH

Combustion Icon

PCB-Display Connection Status

External Recirculation Icon

Temperature Unit

Hot Water Operating Icon

Lock Mode

Vacation Mode Icon

High Temperature Icon

Recirculation Timer Icon

Status Display

Freeze Prevention Icon

AM PM

°F °C

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Clock Display

Timer Setting (Displayed in <u>units of 30 minutes</u>)

Timer Setting (Displayed in <u>units of 1 hour</u>)

Pump Operating Icon

Status Display Mode

How to enter Status Mode:

With the Display powered On,
Press and Hold the Function Button ⚏

- Use this mode for Diagnostic Troubleshooting
- Setting the Time
- Model Identification
- Gas Type
- Control/Display Firmware

Index		Description
Main	**Sub**	
A:GA	HotF	DHW flow rate value by On demand
	rCLF	Circulated water flow rate value by Internal pump
b:Fr		Current Blower rpm
C:oP		Heat Exchanger temperature
D:dH		DHW Hot outlet temperature
E:Eh		Exhaust gas temperature
F:In		Cold Inlet temperature
G:rt	PH	Power Supply Time : 0000 hours
	rh	Burner Operating Time : 0000 hours
	It	Ignition attempts : 0000 cycles
	CF	Water accumulated : 0000 gallons
	PO	Pump ON time : 0000 hours
H:VP	AG	AGM Position (0 : Fully opened, 100 : Fully closed)
	FLCL	Incoming water control valve position(0 : Fully opened, 100 : Fully closed)
	bYPS	Mixing valve position(0 : Fully opened, 100 : Fully closed)
I:FC	GAL(Default)	Flow rate : gpm (Gallon / min), Temperature : F (Fahrenheit)
	LIt	Flow rate : lpm (Liter / min), Temperature : C (Celsius)
J:TA	HOUR	Hour setting : 0~23
	MIN	Minutes setting " 0~59
K:MD		Model Identification (199 : 199,000 BTU)
L:GT		Gas Type (ng, LP)
M:Pr	Pcb	Control board revision number
	PnL	Display Panel revision number
N:VA	oFF	Disable to Vacation Mode
	on	Enable to Vacation Mode

Installer Mode

How to enter Installer Mode:

With the Display powered OFF,
Press and Hold the Function Button ⊞

- Check Error History
- Reset to Factory default settings
- Make Altitude Adjustment
- Select DHW Recirc Type
- Set Cascade address
- Re-initialize AGM, Water Valve and Mixing Valve

Index		Description	Index		Description
Main	**Sub**		**Main**	**Sub**	
1:EH	E0:xx ~ E9:xx	E0:xx - Latest error, E9:xx - Oldest Error	11:IV	rIG (Default : 10)	Pump ON time set (1 ~ 60 minutes)
2:cE	no(Default)	No clear Error history		POF (Default : 7)	Pump OFF time set (1 ~ 30 minutes)
	yES	Clear all error history	12:HT	HI-2	Burner ON by Hot Outlet temp. : High
3:In	no(Default)	No reset		HI-1(Default)	Burner ON by Hot Outlet temp. : Medium
	yES	Reset Factory default except 4: AG, 5: FH and 6: FL		Lo	Burner ON by Hot Outlet temp. : Low
4:AG	Default : 0	Adjust AGM plate location for min only (-50 ~ +50)	13:cn	Default :0	Cascade ID (0 : Not Cascaded, 1 : Leader, 2 : Follower)
5:FH	Default : 0	Adjust Blower pwm for High fire (-50 ~ +50)	14:Eh	oFF(Default)	Blowers in the cascade system operate independently (NRV installation required)
6:FL	Default : 0	Adjust Blower pwm for Low fire (-50 ~ +50)		on	Blowers operate simultaneously
7:AH	Eco	Enable to Air Handler	15:Vt	PVC	PVC venting
	Ant	Anti-Bacterial Mode oFF - Standby Time / on - Operation Time		CPVC	CPVC / PP / SS venting
8:HA	0 - 2(Default)	0 ~ 2,000 ft (Sea Level)	16:AL	oFF	Disabling Flushing Alarm
	2 - 5	2,000 ~ 5,000 ft		365	Flushing alarm after 365 hours of hot water use
	5 - 8	5,000 ~ 8,000 ft		700	Flushing alarm after 700 hours of hot water use
	8 - 10	8,000 ~ 10,000 ft		1000	Flushing alarm after 1000 hours of hot water use
9:RC	oFF(Default)	Deactivate Recirculation functions	17:CK	A.PP1	Burner ON trial with Internal circulation
	Itnl	Internal circulation mode		b.PP2	Pump trial with External circulation
	Etnl	External circulation mode		c:FAn	Fan rotation trail (0 : stop, 100 : Max rpm)
	tt24	Title24 circulation mode		d.AG	AGM Initialization
	CrOS	Crossover circulation mode		E.FL	Flow Control Valve Initialization
10:RT	HI-2	Recirculation temperature : High		F.bY	Mixing valve Initialization
	HI-1(Default)	Recirculation temperature : Medium			
	Lo	Recirculation temperature : Low			

Setting Temperature (95 to 120 °F)

1. Press and release the Hot Water Temperature button

Hot Water Temperature Button

2. The shower symbol will appear and will blink on the screen

3. Turn the Adjustment Dial and select temperature (95 and 120°F)

4. Press the Adjustment Dial to set selected temperature

Setting Temperature (125 to 140 °F)

1. Press and release the Hot Water Temperature button

Hot Water
Temperature
Button

2. The shower symbol will appear and will blink on the screen

3. Press + Hold the Hot Water Temperature button until 125° F and triangle with exclamation mark appears
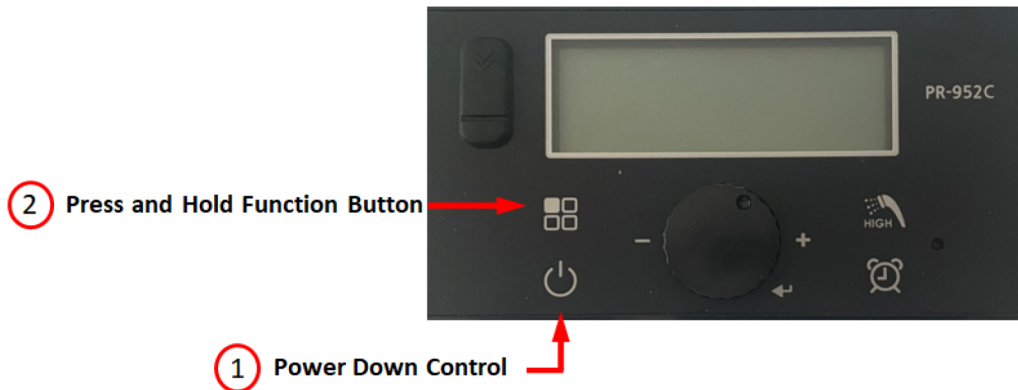

4. Select temperature between 125 to 140°F and press Adjustment Dial to confirm

Program DHW Recirculation:

To enter Installer Mode ① power down display then ② push and hold the function button

② Press and Hold Function Button

② Press and Hold Function Button

① Power Down Control

Rotate dial to Parameter 8: RC (DHW Recirculation). Push the center dial and select the type of Recirculation that will be used by rotating the dial. Select the type of Recirc by pushing the center dial
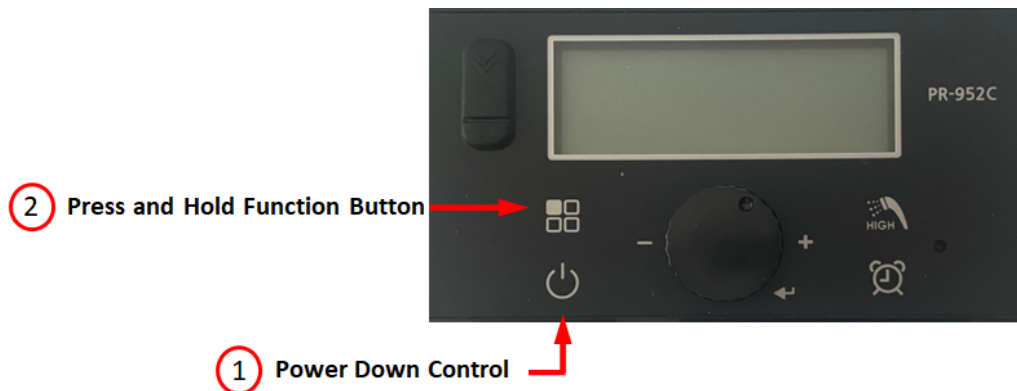

- ITNL – Internal Recirculation (Unit maintains internal temperature)
- ETNL – Unit will recirculate thru a dedicated system return loop
- TT24 – The system uses a third-party (field supplied) on-demand system
- CrOS – Retrofit Recirc system using under sink by-pass/crossover valve

Mode	Screen Display	Description	Setting 11:RC	Requirement		Performance		
				Dedicated Return Line	Accessory	Wait Time Water Savings	Energy Savings	Hot Water Temperature
Internal	ɪťnL	Hot water without dedicated return line.	Itnl	No	-	Better	Better	Better
External	EtnL	Quick hot water with dedicated return line.	Etnl	Yes	-	Best	Better	Best
On Demand (Title-24)"	tt24	Only operates recirculation line with a push of a button.	tt24	Yes	O	Better	Best	Best
Crossover	CrOS	Quick warm water without dedicated return line.	CrOS	No	O	Best	Good	Warm

Program DHW Recirculation:

To enter Installer Mode ① power down display then ② push and hold the function button

② **Press and Hold Function Button** →

① **Power Down Control** ↰

Rotate dial to Parameter 11: RC (DHW Recirculation). Push the center dial and select the type of Recirculation that will be used by rotating the dial. Select the type of Recirc by pushing the center dial

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After selecting DHW Recirc Type – push the Function Button ⊞ to exit the Installer Mode then power up The display.

Set current Time by entering Status Display Mode

- With the Display powered On,
  Press and Hold the Function Button

Press and Hold Function Button ➔

- Turn center dial to J:TA

- Push the center dial and program Hour and Minutes (note: it is a 24HR Clock)

- After setting the Time, push the function button ⊞ to exit the display status mode

For Internal, External and Crossover Recirc select the time periods throughout the day when the recirc should be active. The Default program will be active from 5 a.m. to 8 a.m and 5 p.m. to 10 p.m.

5	6	7

← The # represents the first 30 minutes of an hour

← The dash below the # is the final 30 minutes of an hour

Push the Clock Button to program Recirc

Turn the dial and select SET

Use the blinking cursor and center dial (turn +press) to select the desired active program times

Push and Hold center dial to save

Push the Clock button once to exit

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