



engineered for life™

Your Comfort, Perfectly

# controlled.

FT™ Series Super High Efficiency  
Condensing Combi Boilers

*FULL COLOR LCD  
TOUCH SCREEN  
DISPLAY*



These products meet  
a stringent set of our  
internally defined  
sustainability standards.





## Interior

- 1 Fan
- 2 Gas Valve
- 3 Fire Tube Heat Exchanger
- 4 Supply Water Pipe
- 5 Safety Ignition Module (SIM+)
- 6 Full Color LCD Touch Screen
- 7 Return Water Pipe
- 8 Domestic Hot Water Heat Exchanger & Pump



All FT™ Series Combi Boilers include a full color LCD touch screen display featuring the latest in controls technology and software.

# High Performance, Efficiency and Value

for all your home heating and domestic hot water needs

## Full Color LCD Touch Screen Display:

- **Easy Setup & Maintenance:** Simplified calibration, diagnostics, and troubleshooting
- **4-Zone Pump Control with Load Pairing:** Controls zone pumps via touchscreen while assigning heating loads for precise, efficient comfort
- **System Monitoring:** Real-time operational data
- **Color-Coded Alerts:** Quick visual status notifications
- **Historical Data Logs:** Access past performance insights
- **USB Port:** Enables fast updates and software installs
- **Cascade Capability:** Control up to four boilers seamlessly

## Maximum Performance:

- **95% AFUE:** Super High Efficiency for lower operating costs
- **ENERGY STAR® certified**
- **Stainless Steel Fire Tube Heat Exchanger:** ASME rated for safety and quality, it transfers heat from combustion gases to water with maximum efficiency
- **10:1 Turndown Ratio:** Increases boiler efficiency and life

## Built-In Features:

- **Factory Installed Boiler Pump:** Saves installation time and costs

- **Combi Block:** Efficiently manages both space heating and domestic hot water production in one compact unit
- **Brazed Plate Heat Exchanger:** Transfers heat from the boiler to domestic hot water within the combi block
- **Moisture Free Zone (MFZ) Technology:** Protects components from corrosion
- **Outdoor Reset Control:** Adjusts water temperature with outdoor conditions
- **Safety Certified:** CSA/UL approved with low water cutoff and high-limit protection

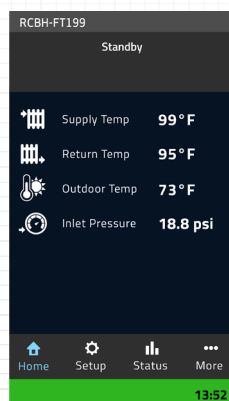
## Easy to Install & Service:

- **4 Universal Shared Platform Parts (Fan, gas valve, integrated pump and diverting valve):** Uses common parts across models, simplifying the diagnosis and servicing
- **Modular Design:** Combi block components easily replaced individually
- **Extended Venting Lengths:** Up to 50 ft (2") and 170 ft (3") options
- **Condensate System:** Draining system cleans as it heats
- PVC/CPVC/PP approved

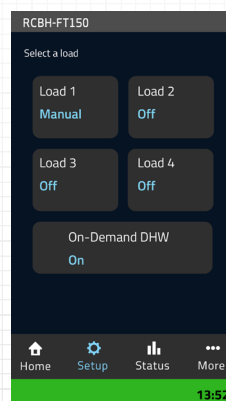
## Warranty

- **15-Year Heat Exchanger, 5-Year Parts, 1-Year Labor**

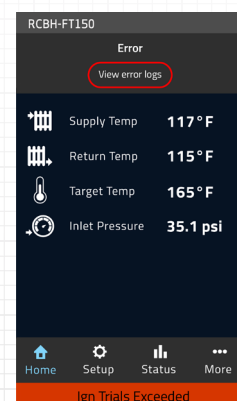
# Combi Boiler Control at Your Finger Tips



Home Screen



Load Settings

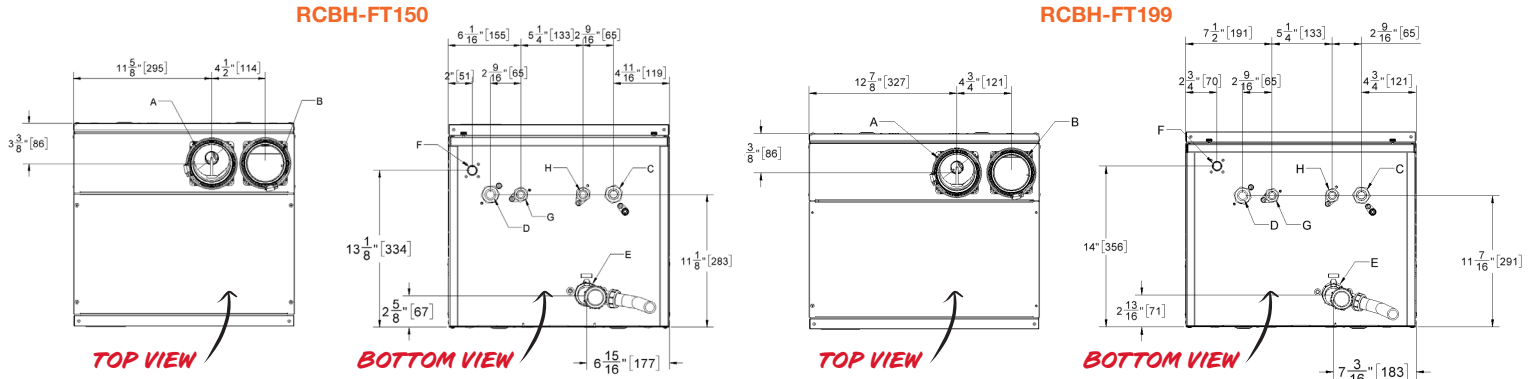


Error Screen



# Dimensions

## DIMENSIONS

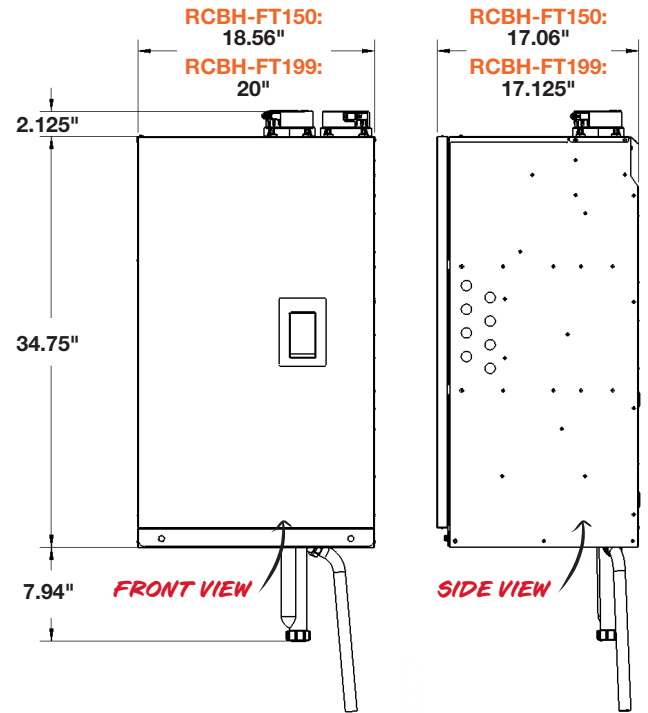


## SPECIFICATIONS

PIPING CONNECTIONS			
MODEL NO.		RCBH-FT150	RCBH-FT199
<b>A</b>	Flue Outlet	3" PVC/CPVC or PP (80mm)	
<b>B</b>	Combustion Air Inlet	3" PVC/CPVC or PP (80mm)	
<b>C</b>	Return Water Inlet (Tepid)	1" NPT-M	
<b>D</b>	Supply Water Outlet (Hot)	1" NPT-M	
<b>E</b>	Condensate Outlet	3/4" Hose	
<b>F</b>	Gas Inlet	1/2" NPT-F	
<b>G</b>	DHW Outlet (Hot Water)	3/4" NPT-M	
<b>H</b>	DHW Inlet (Cold Water)	3/4" NPT-M	

CLEARANCE FROM BOILER CABINET		
SURFACE	MIN. DISTANCE FROM COMBUSTIBLE SURFACES	RECOMMENDED DISTANCE FOR INSTALLATION AND SERVICE
Front	2"	24"
Rear Flue Connection	0"	0"
Left Side	0"	4" (allow acces to water connections)
Right Side	1"	4" (allow acces to "water connections)
Top	2"	6" (for vent connection)
Bottom	0" (clearance for pipes)	12" (for condensate trap and piping)

VENTING	MAXIMUM EQUIVALENT LENGTHS	
SCHED. 40; RIGID PP	RCBH-FT150	RCBH-FT199
2"	50' (max.)	Not Permitted
3"	170' (max.)	100' (max.)
90° Vent Elbow	Each 90° elbow is equivalent to 8 feet	
90° Long Sweep Elbow	Each 90° elbow is equivalent to 5 feet	
45° Elbow	Each 45° elbow is equivalent to 3 feet	
PP 87-90° Elbows	Each 87-90° elbow is equivalent to 8 feet	
2" Stainless Steel Sidewall Terminal	Not Permitted	Not Permitted
3" Stainless Steel Sidewall Terminal - Exhaust Vent	Allow 20'	
3" Stainless Steel Sidewall Terminal - Air Intake	No Allowance Required	
Flexible PP 3" Flexible	Limited to 45' (max.)	Limited to 30' (max.)



# Technical Information

## SPECIFICATIONS

MODEL NO.	RCBH-FT150	RCBH-FT199
CSA Input (Nat. Gas or Propane) - MBH	15-150	20-199
CSA Input (Nat. Gas or Propane) - kW	4.4-44	5.9-58.3
CSA Output - MBH	14.3-138.5	19.1-183.7
CSA Output - kW	4.2-40.6	5.6-53.8
DHW - CSA Input (Nat. Gas or Propane) - MBH	15-150	20-199
DHW - CSA Input (Nat. Gas or Propane) - kW	4.4-44	5.9-58.3
AFUE	95%	95%
Min. Gas Supply Pressure (Nat. Gas or Propane) - Inch w.c.	4	4
Max. Gas Supply Pressure (Nat. Gas or Propane) - Inch w.c.	14	14
Ambient Temperature - Low	32°F/0°C	32°F/0°C
Ambient Temperature - High	122°F/50°C	122°F/50°C
Max. Relative Humidity (Non-Condensing)	90%	90%
Min. Water Temperature	34°F/1°C	34°F/1°C
Max. Water Temperature (Electronic Hi-Limit)	190°F/88°C	190°F/88°C
Max. ΔT - Supply/Return (Electronic Fence)	40°F/22.2°C	40°F/22.2°C
Max. Water Temperature Lockout Limit	201°F/94°C	201°F/94°C
Power Use (120 Vac/60 Hz) @ Full Fire - Watts (w/ pump)	94.8	106.9
Weight (Empty) - lbs/Kg	100/45.4	113/51.3
Pressure Vessel Water Content - USG/Liters	2.79/10.56	3.51/13.29
Max. Boiler Flow Rate - US gpm	19	25
Min. Boiler Flow Rate - US gpm	3	4
Max. Boiler Operating Water Pressure* - psig	50	50
Min. Boiler Water Pressure - psig	8	8
Max. DHW Water Pressure - psig	150	150
Min. DHW Water Pressure - psig	40	40
DHW Delivery at 70°F/39°C Temperature Rise - US gpm	4.1	5.5
Relief Valve Pressure (Supplied) - psig	30	30
Approved Installation Altitude - ASL	0-12,000'	0-12,000'
Venting 2"	50'	N/A
Venting 3"	170'	100'
Ultra Low NOx	Meets 14 ng/J NOx requirements - SCAQMD Rule 1146.2 compliant	

## ACCESSORIES

FLOOR STAND	PARTS KIT
Part No. P-267 	Part No. P-1632 

## CONTACT US

**Customer Service,  
Warranty and Parts**  
800.621.5622

**Technical Service**  
833-212-9276

**Plumber  
Support Group**  
866.339.2388

*In keeping with its policy of continuous progress and product improvement, Rheem reserves the right to make changes without notice.*

RCBH-FT150 - DELIVERY RATE	
TEMP. RISE	GPM
50	5.5
55	5.0
60	4.6
65	4.2
70	4.1
75	3.7
80	3.5
85	3.2
90	3.1
100	2.8
110	2.5
120	2.3
130	2.1
140	2.0

RCBH-FT199 - DELIVERY RATE	
TEMP. RISE	GPM
65	5.6
70	5.5
75	4.9
80	4.6
85	4.3
90	4.1
100	3.7
110	3.3
120	3.1
130	2.8
140	2.6

