

Technical Bulletin 185

RE and REP Series Vent Length Parameter Setting for Optimum Performance

PURPOSE: To reinforce section "4.5 Vent the Water Heater" of the RE and REP Installation and Operation Manual for long/short vent setting to optimize performance.

PRODUCT INFORMATION

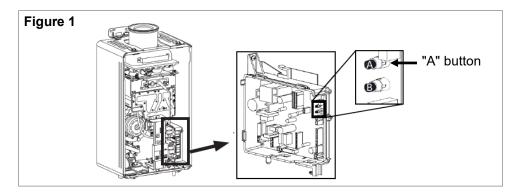
- Applicable Products: RE and REP Series Tankless Water Heaters
- Applicable Models: Indoor models only: RE140i, RE160i, RE180i, RE199i, REP160i, REP199i

DETAILS

When installing Rinnai RE and REP Series tankless water heaters, Rinnai strongly recommends selecting the correct vent length on parameter setting 99 for optimal flow rate performance.

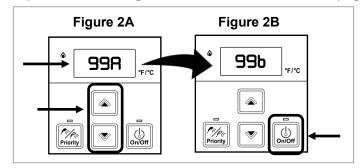
To adjust parameter setting 99:

- 1. Ensure power is applied to the tankless unit.
- 2. Locate the PC Board (lower right side of unit) (Figure 1).
- 3. Locate the two push buttons (A and B) on the PC Board (Figure 1).
- 4. Press the "A" button for 2 seconds to enter programming mode (Figure 1).



- 4. Use the ▲ (Up) and ▼ (Down) buttons on the controller to navigate to parameter 99A (Figure 2A).
- 5. The tankless unit comes factory set to "Long" vent (parameter **99A**) (Figure 2A). If the total vent length is less than 21 equivalent feet, then parameter **99A** must be changed to **99b** by pressing the "On/Off" button on the controller one time until **99b** appears on the display (Figure 2B).

Note: To determine equivalent vent length, refer to Table 2 on the next page.



6. Once the parameter is set accordingly, press and hold the "A" button on the PC Board (Figure 1) for 2 seconds to save your settings and exit programming mode.

Table 1. Parameter Settings Table

SETTING	SETTING	SELECTION			
#	DESCRIPTION	R	Ь	Ε	Ь
Ol	Maximum Set Temperature	120°F	140°F		
02	High Altitude Installation	0 - 2,000 ft (0 - 610 m)	2,001 - 5,400 ft (610 - 1,646 m)	5,401 - 7,700 ft (1,646 - 2,347 m)	7,701 - 10,200 ft (2,347 - 3,109 m)
03	Service Soon	Disabled	0.5 Year	1 Year	2 Years
04	Recirculation Settings	No Recirculation	Recirculation (Dedicated)		
05	Recirculation Mode	Economy	Comfort		
06	Control Switch	BMS	Air Handler (AH)		
רם	Units in Standby	2	1		
10	Gas Type	LPG	NG		
15	Water Heater Model (Factory set values and	Without Pump	With Pump		
13		199/160	180/140		
14	not adjustable)	Indoor	Outdoor		
15	Low Activation Mode	On	Off		
18	Setting Temperature Table	Default	Alternate		
19	Adjust DHW Temperature Setting	0°F (0°C)	1.8°F (1°C)	3.6°F (2°C)	5.4°F (3°C)
99	Vent Length	Long	Short		

Table 2. Maximum Equivalent Vent Length

Number of 90° elbows	(Default) Long (99-R)	Short (99-b)
0	21-41 ft (6.4-12.5 m)	0-20 ft (0-6 m)
1 16-35 ft (4.9-10.7 m		0-15 ft (0-4.6 m)
2	9-29 ft (2.7-8.8 m)	
3	23 ft (7.0 m)	
4	17 ft (5.2 m)	
5	11 ft (3.4 m)	
6	5 ft (1.5 m)	

VIDEO TUTORIAL Scan the QR code below for a video tutorial:



- Two 45° elbows count as one 90° elbow.
- Ubbink concentric termination counts as 5 ft. equivalent length.