Vent Extension Covers for the RHFE 263, 431, 556 Series

KIT NO.	NAME	
FOT-132	Manifold Cover	
FOT-133	Straight Cover	0 0
FOT-134	Elbow Cover	

Vent Extension Covers for the RHFE 1001 and 1004 Series

KIT NO.	NAME	
FOT-140	Manifold Cover	
FOT-141	Straight Cover	0 0
FOT-142	Elbow Cover	
FOT-162	Cover for First Piece on RHFE-1004FA *	

^{*} This piece has a smaller cross section at one end to allow the filter to be removed for cleaning.

Installations at Altitude

Models RHFE-201FA, RHFE-263FA, RHFE-263FAII, RHFE-1004FA

The PC boards of these models have altitude settings which allows operation up to 10,200 feet (3109 m). The correct altitude is entered using switches on the PC board and the appliance control buttons.

When installing these models, follow the Gas Pressure Setting Procedure for your model. This procedure adjusts the gas input pressure and the PC board settings.

When replacing a PC board, adjust the PC board settings according to the replacement part instructions.

Models RHFE-431FAIII, RHFE-431WTA, RHFE-556FAIII, RHFE-556FTRAIII, RHFE-556WTA

For installations at altitude (greater than 2000 feet), follow the guidelines of the National Fuel Gas Code (NFPA 54) and all applicable local codes.

- 1. Turn off the gas and the power supply.
- 2. Hold both ends of the bottom cover (undercover assembly) and pull toward you to remove the cover. Cover snaps in place.
- 3. Remove the 7 screws that hold the front panel and the louver assembly to remove panel from the unit. Pull the panel out at the bottom about 4 inches (100 mm) and lift up over clips that hold it in place at the unit's top.
- 4. Remove two test point screws (1/8 NPT tap) with 3/16 Allen wrench and attach the manometer to both test ports. Both ports must be used in order to measure the differential pressure. Ensure that the manometer is properly calibrated.
- 5. Turn on the gas and power supply to the appliance. With the unit in the Off position, press the SW1 switch at the top of PC board until it beeps.
- 6. Select the correct code for gas type and altitude using ▲ and ▼ buttons:

NOTE: Some PC Boards (before version ED-263 -V6-E4) will have only L1, L2, A1, and A2 codes. On these boards L2 and A2 are for altitudes above 2000 ft (610 m). See the figure to locate the label indicating the version.

L1: Propane gas below 2000 ft (610 m)

L2: Propane gas 2001-4500 ft (610-1372 m)

L3: Propane gas 4501-7800 ft (1372-2377 m)

L4: Propane gas 7801-10200 ft (2378-3109 m)

A1: Natural gas below 2000 ft (610 m)

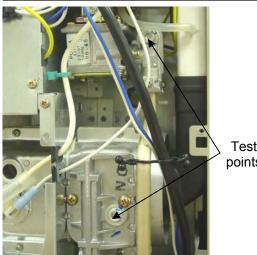
A2: Natural gas 2001-4500 ft (610-1372 m)

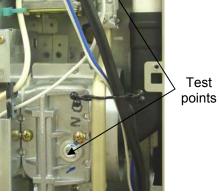
A3: Natural gas 4501-7800 ft (1372-2377 m)

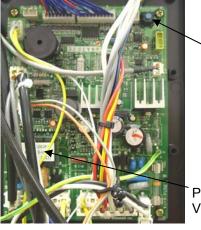
A4: Natural gas 7801-10200 ft (2378-3109 m)

4 CAUT	ION	7
Do not touch an	nv other a	rea

as on the PC board besides the "SW" switches while power is supplied to the appliance. Parts of the PC board are supplied with 120 volts AC.







SW₁

PC Board Version Label

Model	Altitude	Gas Type	High Fire	Low Fire
201FA 10,20	0 - 10,200 ft	Natural Gas	3.3 in (85 mm)	0.6 in (16 mm)
	(610 - 3109 m)	Propane	6.0 in (152 mm)	0.9 in (24 mm)

Model	Altitude	Gas Type	High Fire	Low Fire
	Less than	Natural Gas	2.3 in (58 mm)	0.6 in (16 mm)
263FA	2000 ft (610 m)	Propane	3.7 in (94 mm)	1.1 in (27 mm)
263FAII	2000 - 10,200 ft (610 - 3109 m)	Natural Gas	1.7 in (42 mm)	0.6 in (16 mm)
		Propane	2.7 in (68 mm)	1.1 in (27 mm)

- Press the SW1 test button to record the gas type code into memory. The LED will display "F1". If not shown, use the ▲ and ▼ buttons to obtain "F1".
- 8. Press the SW1 switch to enter this code into memory.
- The LED will display the temperature scale. Use the ▲ and ▼ buttons to select the Fahrenheit or Celsius scale.
- 10. Press the SW1 switch for more than 2 seconds to enter the temperature scale into memory.

The LED display turns blank and the unit returns to the normal off mode. While programming the correct low fire and high fire gas pressure settings, do not adjust gas pressure on this appliance using the screw on top of the gas valve.

11. Press the ON/OFF button to operate the appliance.



Do not touch the areas at or near the exhaust. These areas become very hot and could cause burns.

- 12. Press the SW1 switch. The LED will display "78".
- 13. Press the SW1 switch again to change to the low pressure mode. The LED will display "PL".
- 14. Compare the pressure reading on the manometer to the desired manifold test pressure (low) for your gas type and altitude. If necessary adjust the low fire pressure using the ▲ and ▼ buttons. Press the SW1 switch to record into memory.
- 15. The LED will display "PH" indicating high fire mode.
- 16. Compare the pressure reading on the manometer to the desired manifold test pressure (high) for your gas type and altitude. If necessary adjust the high fire pressure using the ▲ and ▼ buttons. Press the SW1 switch to record into memory.
- 17. Press the SW1 switch 2 times. After pushing the SW1 switch 2 times, the LED display will display "78". If the LED shows any thing other than "78" call Rinnai Technical Support at 1-800-621-9419 for assistance.
- 18. Press the ON/OFF button again. The LED display turns blank and the appliance returns to the normal OFF mode.

- 19. Remove manometer and install Allen head screws. Operate the unit and
 - •check the normal operating sequence
 - visually inspect the flame
 - •check for gas leaks at the test points

Normal Operating Sequence

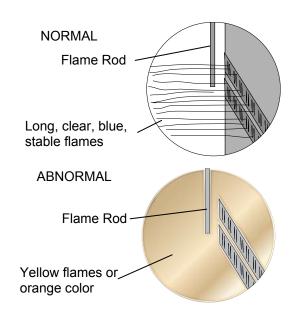
When you press the ON/OFF button, the LED display will illuminate, the combustion fan will begin to run, and the spark will ignite the main burner.

This heater has an automatic ignition system. When the main burner has lit, the combustion lamp will glow red, and the spark will stop.

Visual Inspection of Flame

Check that the burner flames are operating normally. The flame can be seen through the circular window through the louvers.

When operating normally the burner flame should appear as long, clear, blue, stable, streaks. Yellow flames or an orange color is abnormal and maintenance is required.



Final Assembly

Install the front panel and bottom cover.

- There are two test points, one on the manifold and one on the gas control assembly. Connect the pressure gauge to both test points. Using an electronic manometer, connect the negative side to the manifold test point.
- 2. Press the ON/OFF switch. After unit ignites, wait approximately one minute.
- Press the (SW5) button to start the programming mode.
- 4. Press the (SW4) button. Use the arrow buttons to set the low pressure to the appropriate setting for your model and gas type. The V button will decrease the pressure each time the button is pushed. The W button increases the pressure each time it is pushed.
- 5. Press the (SW4) button to lock in the low pressure.
- 6. Press the (SW3) button. Use the arrow buttons to set the high pressure to the appropriate setting for your model and gas type. The ▼ button will decrease the pressure each time the button is pushed. The ▲ button increases the pressure each time it is pushed.
- 7. Press the (SW3) button to lock in the high pressure.
- 8. Press the (SW5) button to exit the programming mode and return the appliance to its normal operating mode.
- 9. Press the ON/OFF button to turn the appliance off.
- 10. Remove manometer and install the test point screws. Operate the unit and
 - •check the normal operating sequence
 - •visually inspect the flame
 - •check for gas leaks at the test points

Normal Operating Sequence

When you press the ON/OFF button, the LED display will illuminate, the combustion fan will begin to run, and the spark will ignite the main burner.

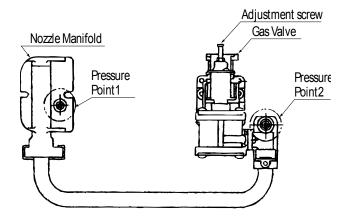
This heater has an automatic ignition system. When the main burner has lit, the combustion lamp will glow red, and the spark will stop.

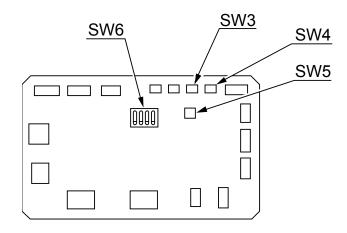
A CAUTION 4

Do not touch any other areas on the PC board besides the "SW" switches while power is supplied to the appliance. Parts of the PC board are supplied with 120 volts.

A CAUTION S

Do not touch the areas at or near the heat exchanger or burner. These areas become very hot and could cause burns.





Model	Gas Type	High Fire	Low Fire
421 Corion *	Natural Gas	2.4 in (61 mm)	0.7 in (18 mm)
431 Series *	Propane	2.8 in (71 mm)	0.8 in (20 mm)
556 Series *	Natural Gas	3.8 in (97 mm)	0.7 in (18 mm)
	Propane	4.5 in (114 mm)	0.8 in (20 mm)

^{*} For installations at altitude (greater than 2000 feet), follow the guidelines of the National Fuel Gas Code (NFPA 54) and all applicable local codes.

Visual Inspection of Flame

Check that the burner flames are operating normally. The flame can be seen through the circular window through the louvers.

When operating normally the burner flame should appear as long, clear, blue, stable, streaks. Yellow flames or an orange color is abnormal and maintenance is required.

Final Assembly

Install the front panel and bottom cover.

