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Ortal Fuel Conversion Instructions

To change the gas type of a fireplace from NG to LP or LP to NG, a gas conversion kit is required. Gas conversions can be performed only by technicians who have specific authorization to change and adjust these components. The actual change must be done by the authorized technician. Not all installers are authorized to provide gas conversion services. **Using parts from other manufacturers or having an unauthorized party performing the conversion will void your fireplace's warranty.** Follow these instructions to convert Ortal fireplaces properly and safely:

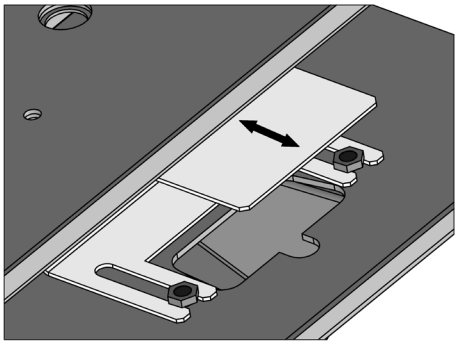
⚠ **WARNING: Before starting this procedure, make sure to disconnect the main gas and power supply to the unit.**

Suggest Tools:

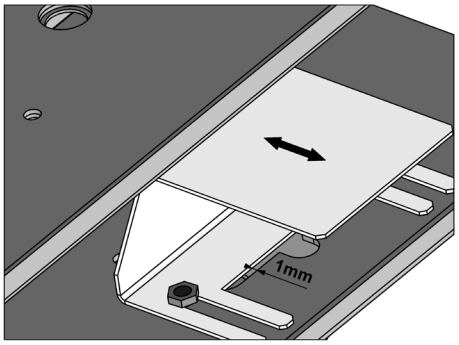
- 8,9,10,12,15,17mm wrench
- 10mm t-handle
- #3 Philips
- #2 Philips
- 1/8th and 1/16th flat screwdriver
- Manometer
- Bubble solution
- Suction cup
- 5mm ball end Allen

1. Remove the crate and packaging materials.
2. Remove the safety barrier (screen or double glass), trim and glass pieces.
3. Remove the media tray. (Philips screws)
4. Remove the pilot hood and 2 screws so the pilot can be removed.
5. Remove the 10 mm bolts holding the burner in place.
6. Lift the Burner up. (It may be easiest to rotate the front of the burner up.)
7. Depending on the pilot style, pull the pilot and gasket out from the bottom or up from the top of the burner.
8. Disconnect the pilot assembly from the valve and receiver.
9. Disconnect the gas tube from the burner and remove the burner from the fireplace.
10. Remove the main burner orifice and replace with the correct sized one based on the most current conversion chart in the table of page 3. Depending on the model and burner type there may be several orifices that need to be changed out.
11. Loosen the two 8mm nuts and adjust the shutter per gas type (shown on page 2 in table and diagram), retighten the nuts.

Gas Type	Shutter Setting
Natural Gas	1mm
Propane	Full Open



LPG adjustment



NG adjustment

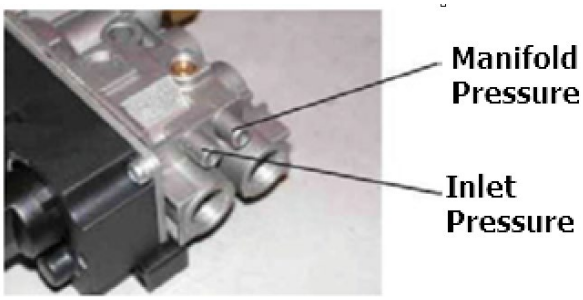
12. Place the burner into the firebox. Reconnect the gas tube to the burner.
13. Install the newly supplied pilot. Ensure the pilot orifice and thermocouple are correct and pilot gasket is in place. *(*pilot gasket placement is essential pilot flame stability)*
14. Reinstall into the burner loosely and install the 2 screws that hold the pilot to the burner. You will tighten them after installing the pilot hood.
15. Reconnect the pilot to the valve and receiver.
16. Put the burner back in ensure all the bolts are tight, put the media tray back in place and secure.
17. Connect the fireplace to the gas & electrical making sure gas line is purged.
18. Light the fireplace. Check the input and manifold pressure with a manometer. Adjust as needed based on the most current conversion chart shown on page 3. Perform a leak test on these ports after pressures are set.
19. Inspect the pilot flame. Adjust as needed for flame to contact the thermocouple and ignition port on burner.
20. Check all gas connections for leaks.
21. Turn unit off.
22. Install pilot hood and tighten screws.
23. Remove the original markings on the rating plate and re-mark based on what burner and orifices are in place. Add conversion sticker to rating plate.
24. Reinstall the glass and heat barrier.

Ortal Series Gas Pressures and Orifice Sizes

Fireplace Series	Burner Size	Burner Type	Gas Type	Inlet Pressures Inch W.C.		Manifold Pressure Inch W.C.	Heat Input (BTU/hr.)		Orifice Size
				Min	Max		Min	Max	
40x70	30	Single	Natural Gas	7.0	10.0	3.2	10,419	23,670	650
			Propane	11.0	13.0	10.9	12,841	21,073	220
25H 31H 60x80 75 75x65	45	Single	Natural Gas	7.0	10.0	4.7	16,147	29,100	650
			Propane	11.0	13.0	9.5	15,627	28,118	320
Curve	45	Double	Natural Gas	7.0	11.0	4.7	18,327	33,029	380 Front 380 Back
			Propane	11.0	13.0	10.7	17,796	28,500	160 Front 160 Back
TR 90 TR 110	45	Decorative	Natural Gas	5.0	10.0	5.2	9,000	55,000	650 Front 800 Rear
			Propane	11.0	13.0	10.0	17,265	53,238	160 Front 220 Rear
44 51 110 120 130	100	Single	Natural Gas	7.0	10.0	5.6	22,798	37,167	1200
			Propane	11.0	13.0	10.0	25,113	35,316	380
60 68 140 150 170	135	Single	Natural Gas	7.0	10.0	3.5	23,312	43,715	1400
			Propane	11.0	13.0	9.5	34,008	49,704	500
77 200	160	Single	Natural Gas	7.0	10.0	4.5	27,467	51,277	1400
			Propane	11.0	13.0	10.0	24,329	51,011	500
98 250	180	Single	Natural Gas	5.0	10.0	4.7	21,700	52,700	1400
			Propane	11.0	13.0	9.0	42,640	57,045	650

Measuring the Inlet & Manifold Pressures:

The figure below shows the two taps to measure gas pressures:



With the control in the OFF position, release (but do not remove) the screw inside the pressure tap and connect the tube of the manometer. Then, ignite the burner.

The value displayed on the manometer is either your inlet or manifold pressure. Test both inlet and manifold pressure taps separately to prevent gas leaks, refer to chart above. Adjust pressure to match the manifold column of the table on page 3.

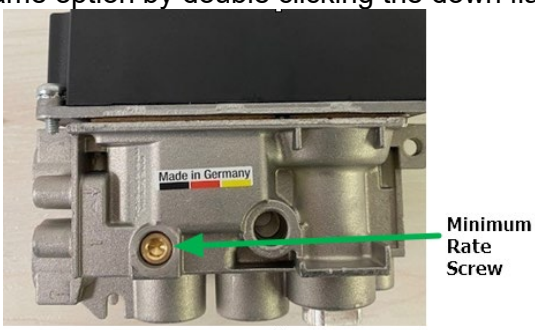
Adjusting the High Manifold Pressure

Remove the rubber plug to expose the setting screw.

Adjust the setting screw to set the proper manifold pressure. Pressure is increased by turning clockwise or decreased by turning counterclockwise.

Adjusting the Low Manifold Pressure

Turn the valve to the low flame option by double clicking the down flame arrow.



Low manifold pressures should be 50% of the high manifold pressure. Adjust the minimum rate screw.