

Fuel Conversion Kit NOVA SIT 820 VALVE ONLY

Installation Instructions

Kits:

#20005458 Natural to LP #20005457 LP to Natural

WARNING!

The installation of this conversion kit must only be undertaken by a qualified, certified gas appliance installer.

These kits are designed for conversion of models NVSTR36 and NVCVR36 equipped with the Nova SIT 820 valve only.

Tools required for conversion: TORX T20 Security Tee bit, 1/2" and 3/4" open end wrench, Phillips screwdriver, 5/32" Allen wrench.

Check Contents of Shipping Carton

Compare contents of Figure 1 with actual parts received. If any parts are missing or damaged, contact your dealer before starting conversion.

Installation Precautions

Before proceeding, turn control knob on valve to "OFF" and turn gas supply OFF. Turn OFF any electricity that may be going to the appliance. Remove the logs from appliance.

CAUTION: Logs may be hot!

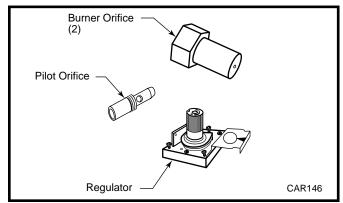


Fig. 1 Carton contents.

Installation Instructions

Burner Orifice Conversion

- Remove any lava rock that may be around the burner.
- 2. Remove the ceramic panel and valve cover to gain access to the valve.
- 3. Lift the grate up and set to the side.
- 4. Using a Phillips screwdriver, remove the four (4) screws securing the burner to the burner supports. (Fig. 2)
- 5. Remove the screw securing the pilot bracket to the burner pan. (Fig. 2)
- 6. Lift up slightly on the burner (pilot side) and pull the burner out away from the orifices. Set the burner aside.

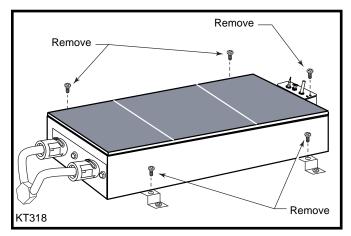


Fig. 2 Remove screws holding burner and pilot bracket.

CAUTION: Always use a 3/4" wrench to hold the orifice mount.

- 7. Using the 3/4" wrench to hold the orifice mount, remove the orifice with the 1/2" wrench. (Fig. 3)
- 8. Apply a light amount of pipe dope to the threads of the orifice mounts and install the new orifices. Refer to Table 1 for correct orifice size.
- 9. Tighten orifices using the 3/4" wrench to hold the mount while tightening the orifices. **NOTE:** Never tighten orifice without holding the orifice mount.
- 10. Adjust the air shutters on the burner to the proper opening. (Fig. 4) This is accomplished by loosening the air shutter retaining screw. Rotate the air shutter to the proper position and tighten the shutter retaining screw. Adjust both air shutters to the same opening. Refer to Table 1 for correct air shutter opening adjustment.
- 11. Slide the burner back in place and secure. Follow steps 1 through 4 in reverse order.
- 12. Burner orifice installation is complete.

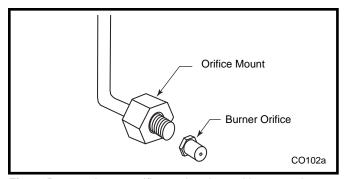


Fig. 3 Remove burner orifice and replace with conversion orifice.

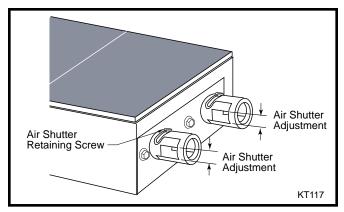


Fig. 4 Adjust the air shutters. Refer to Table 1 for correct air shutter openings.

Pilot Conversion

NOTE: It is not necessary to remove the pilot tube for conversion.

- 1. Remove pilot hood by lifting up. (Fig. 5)
- 2. Remove pilot orifice with allen wrench. (Fig. 6)
- 3. Install conversion pilot orifice.
- 4. Reinstall pilot hood. Be sure to align pilot hood with index tab.

Installation is complete.

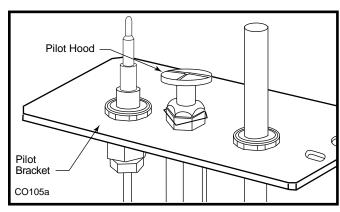


Fig. 5 Remove pilot hood.

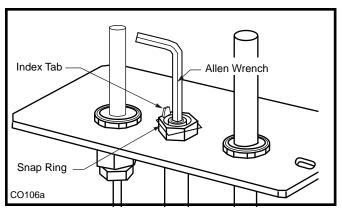


Fig. 6 Remove pilot orifice and replace with conversion orifice.

Valve Regulator Conversion

1. Using the TORX T20 bit remove and discard the three (3) pressure regulator mounting screws (A), pressure regulator tower (B) and the spring and diaphragm assembly (C). (Fig. 7)

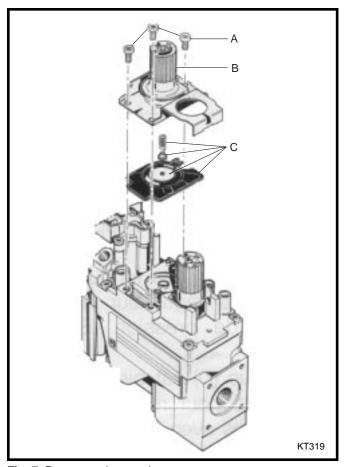


Fig. 7 Remove valve regulator.

- 2. Insure the rubber gasket (D) is properly positioned and install the new Hi/Lo pressure regulator assembly to the valve using the new screws (E) supplied with the kit. Tighten the screws securely. (Ref. torque = 25 in/lb) (Fig. 8)
- 3. Install the enclosed identification label (F) to the valve body where it can be easily seen. (Fig. 8)

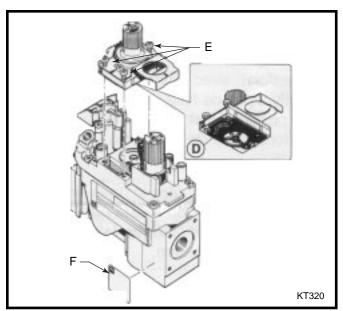


Fig. 8 Replace regulator.

Testing for Leaks

- 1. Apply gas to the system and light the pilot.
- 2. With a soapy solution check for leaks around the pilot assembly where the tube enters the pilot assembly. Tighten fitting if necessary.
- 3. Light the main burner and check for leaks around the new pressure regulator assembly. Tighten screws if necessary.
- 4. With the main burner "ON" rotate the Hi/Lo knob and verify the proper burner operation.

Pilot Flame Adjustment

Typically, the top 3/8" or 1/2" of the thermopile should be engulfed in the pilot flame. (Fig. 9)

To adjust pilot burner:

- 1. Remove pilot adjustment cap located on valve.
- 2. Adjust pilot screw to provide properly sized flame.
- 3. Replace pilot adjustment cap.

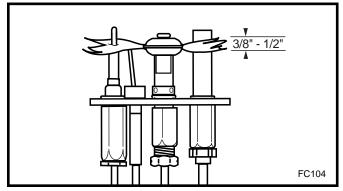


Fig. 9 Correct pilot flame appearance.

To convert to the specific gas listed on each kit, the model number listed should be on the rating/lighting instructions plate. For example: If the fireplace model to convert to LP gas is an NVSTR36, the label should have a model number of F34AR6.

Table 1

Kit #20005458 Conversion from Natural to LP						
		LP Gas				
		Burner Orifice		Input (BTU/hr)		Air Shutter
Model	Part #	Part #	Part #	Minimum	Maximum	Gap
NVSTR36	F34AR6	20000665	20005600			
NVCVR36	F34AR9	Drill Size	Drill Size	31,500	41,000	7/8"
		#55	1.35 mm			
Kit #20005457 Conversion from LP to Natural						
		Natural Gas				
		Burner Orifice		Input (BTU/hr)		Air Shutter
Model	Part #	Part #	Part #	Minimum	Maximum	Gap
NVSTR36	F34BR6	30000512	30000512			
NVCVR36	F34BR9	Drill Size	Drill Size	29,000	41,000	1/8"
1		#43	#43			