



## Installation Guide

Conversion Kits: CK-75, CK-76, CK-77, CK-78



### WARNING

This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. The information in these instructions must be followed to minimize the risk of fire or explosion or to prevent property damage, personal injury or death. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.



### WARNING

Cette trousse de conversion ne doit être installée que par le représentant d'un organisme qualifié et conformément aux instructions du fabricant et à tous les codes et exigences pertinents de l'autorité compétente. Les instructions de cette notice doivent être suivies afin de réduire au minimum le risque d'incendie ou d'explosion, de dommage matériel, de blessure ou de mort. L'organisme qualifié est responsable de l'installation adéquate de cette trousse. L'installation n'est pas adéquate ni complète tant que le bon fonctionnement de l'appareil converti n'a pas été vérifié selon les instructions du fabricant fournies avec la trousse.

#### In Canada:

The conversion shall be carried out in accordance with the requirements of the provincial authorities having jurisdiction and in accordance with the requirements of the CAN-B149.1 and CAN1-B149.2 Installation Code.

LA CONVERSION DOIT ÊTRE EFFECTUÉE CONFORMÉMENT AUX EXIGENCES DE L'AUTORITÉ PROVINCIALE AYANT JURIDICTION ET AUX, CSA-B149.1, ET CAN-B149.2.

\*A qualified service agency is any individual, firm, corporation or company which either in person or through a representative is engaged in and is responsible for the connection, utilization, repair or servicing of gas utilization equipment or accessories; who is experienced in such work, familiar with all precautions required, and has complied with all of the requirements of the authority having jurisdiction.

\*Conversion acceptable for install locations 0-2,000 feet. See Installation Manual for procedures to adjust above 2,000 feet.

NORITZ America Corporation  
11160 Grace Avenue  
Fountain Valley, CA 92708  
866-766-7489

[www.noritz.com](http://www.noritz.com)



CK-IM-16  
Rev. 07/17

# 1. Before Conversion

Before attempting to convert a unit, verify that the proper kit has been purchased for the model type\*:

Conversion Kit	Model	Conversion Type
CK-75	EZ111DV(GQ-C3259WX-FF US)	Propane to Natural Gas
CK-76	NCC199CDV(GQ-C3259WZ-FF US) NRCB199DV(GHQ-C3201WX-FF US)	Natural Gas to Propane
CK-77	EZ98DV(GQ-C2859WX-FF US)	Propane to Natural Gas
CK-78	NRCB180DV(GHQ-C2801WX-FF US)	Natural Gas to Propane

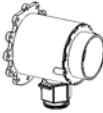







\*The model type can be verified from the rating plate located on the right side of case of the unit.

## Tools Required:

- Noritz Remote Controller  
RC-7651M : EZ111DV(GQ-C3259WX-FF US) and EZ98DV(GQ-C2859WX-FF US)  
RC-9018M : NCC199CDV(GQ-C3259WZ-FF US)  
RC-B201M : NRCB199DV(GHQ-C3201WX-FF US) and NRCB180DV(GHQ-C2801WX-FF US)
- Manometer (Capable of displaying digits in tenths (i.e. 2.4) and up to 20" W.C.)
- Long Philips screwdriver (#2 Recommended)
- Torx T15 screwdriver
- Pliers
- Gas leakage device detector

# 2. Included Parts

The following parts are supplied in the conversion kit. Check for any missing items before starting the conversion.

Parts	Shape	Q'ty	Parts	Shape	Q'ty
Venturi		1	New Inlet Sticker (English)		1
O-Ring –Venturi		1	New Inlet Sticker (French)		1
O-Ring -P18		1	Date, Gas Type, Kit Number, Name of Company Sticker (English)		1
Installation Guide		1	Date, Gas Type, Kit Number, Name of Company Sticker (French)		1

## 3. Conversion Procedure

### Parts Replacement:

- 1) If the display on the remote controller is on, turn off the unit by pressing the "ON/OFF" button on the remote controller.
- 2) Turn off electrical power to the unit by disconnecting the electrical plug from the outlet (Only for NCC199CDV(GQ-C3259WZ-FF US), turn off the Rocker Switch) or shut off the breaker providing power to the unit.
- 3) Turn off the gas supply to the unit by closing the gas shut-off valve.
- 4) Remove the front cover of the unit by removing the 4 screws holding it to the case.
- 5) Detach the Wiring Harness from the Wire Clamps. Remove the Fan Motor connector. (Only for EZ111DV(GQ-C3259WX-FF US), EZ98DV(GQ-C2859WX-FF US), remove the Freeze Prevention Heater Connector.)

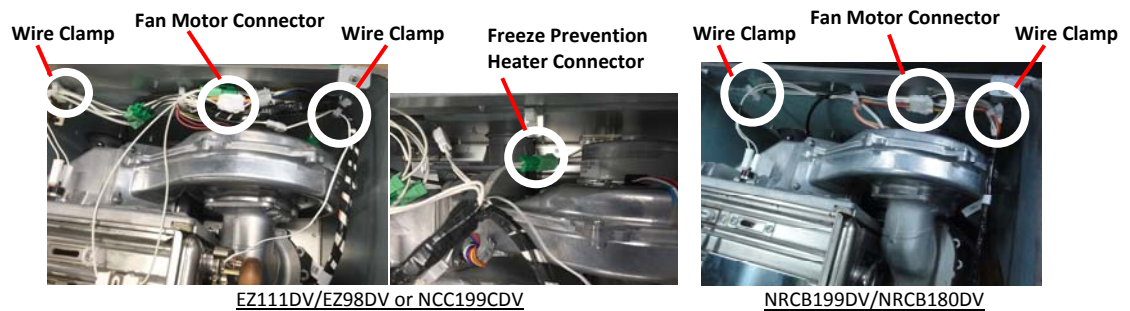


Figure 1

- 6) Remove the C-Clamp -16B. Then remove the 4 screws with a Long Philips screwdriver (Figure 2). Do NOT use a power drill.

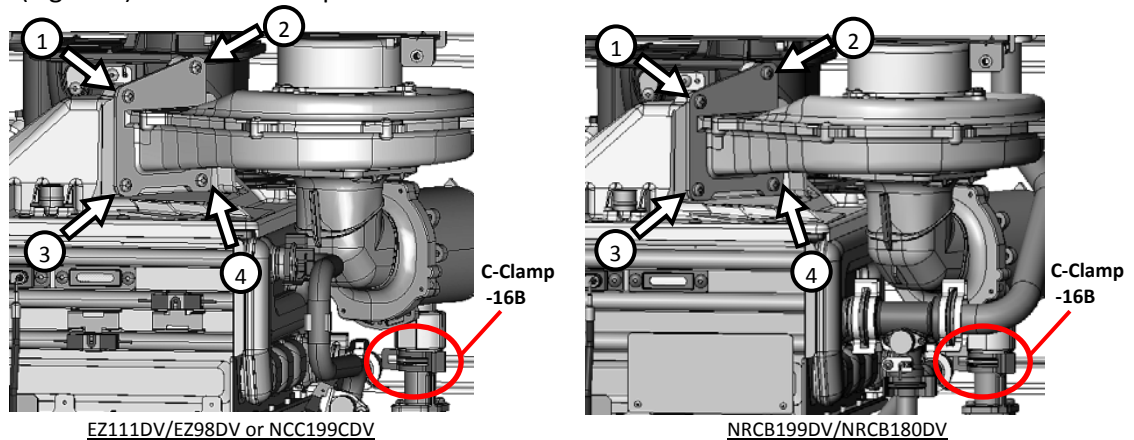


Figure 2

- 7) Detach Fan Motor and Venturi assembly as following procedures.  
 (For NRCB199DV(GHQ-C3201WX-FF US)/NRCB180DV(GHQ-C2801WX-FF US): Fan Motor and Venturi can be detached without removing Heating pipes. )

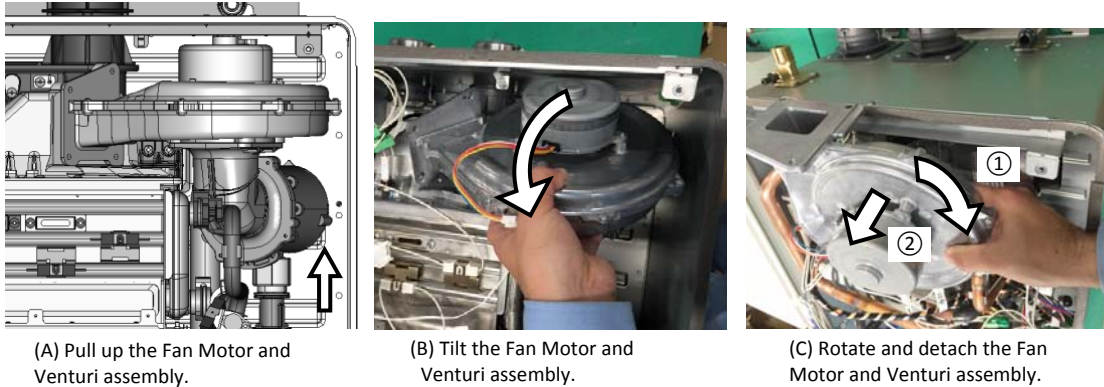


Figure 3

- 8) Replace the O-Ring –P18 to new one. Make sure that the O-Ring is secured properly in place. **Failure to do so will cause gas leaks, possibly resulting in severe personal injury or death.**

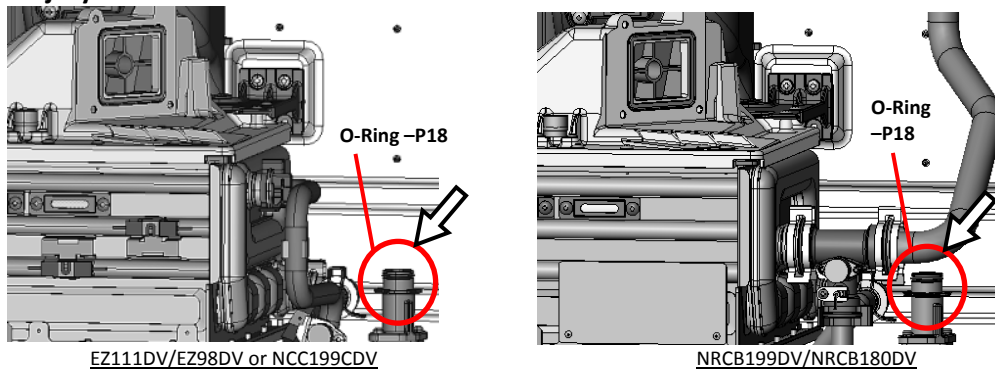


Figure 4

- 9) Remove the 4 screws with a Philips screwdriver (Figure 5) from Gas Elbow Connector. Discard the original Venturi.

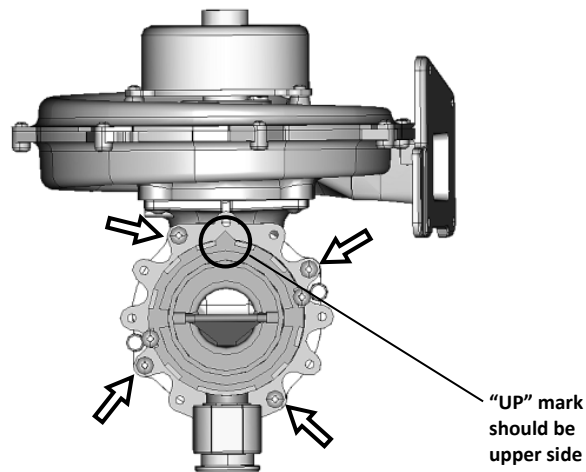
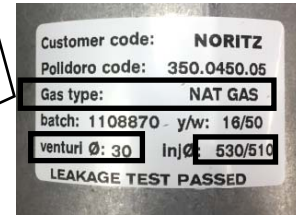


Figure 5

10) Make sure the Gas type, Venturi size, and Inj  $\phi$  on the Venturi label.

Model	Venturi	Gas type	Label color	Inj $\phi$
EZ111DV(GQ-C3259WX-FF US) NCC199CDV(GQ-C3259WZ-FF US) NRCB199DV(GHQ-C3201WX-FF US)	$\phi$ 30	NG (NAT GAS)	White	530/510
		LPG	Black	430/410
EZ98DV(GQ-C2859WX-FF US) NRCB180DV(GHQ-C2801WX-FF US)	$\phi$ 28	NG (NAT GAS)	White	440/480
		LPG	Black	350/390



11) Replace the O-ring –Venturi to new one. Make sure that the O-Ring is secured properly in place (Figure 6). **Failure to do so will cause gas leaks, possibly resulting in severe personal injury or death.**

Secure the new Venturi onto Gas Elbow Connector by tightening the 4 screws with a Philips screwdriver. Be careful of the direction (Figure 5).

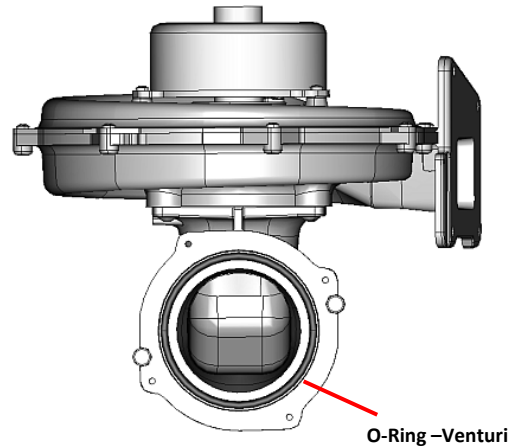
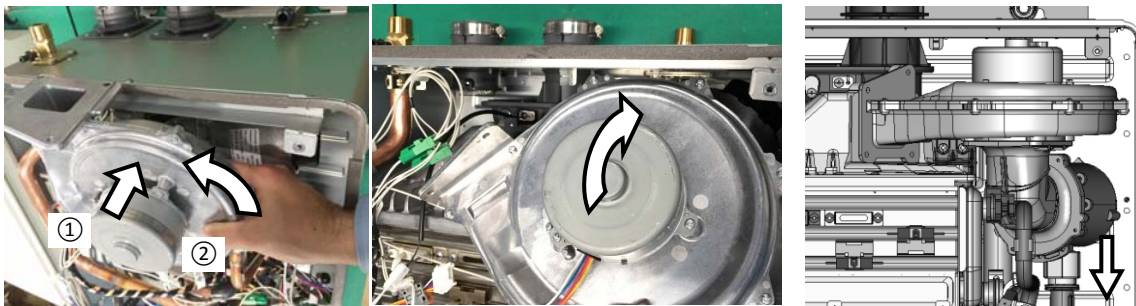


Figure 6

12) Put in the Fan Motor and Venturi assembly and connect to Gas Valve Outlet Connector.



(A) Insert the Fan Motor and Venturi assembly into the unit.

(B) Tilt and put in the Fan Motor and Venturi assembly into the unit.

(C) Connect to Gas Valve Outlet Connector.

Figure 7

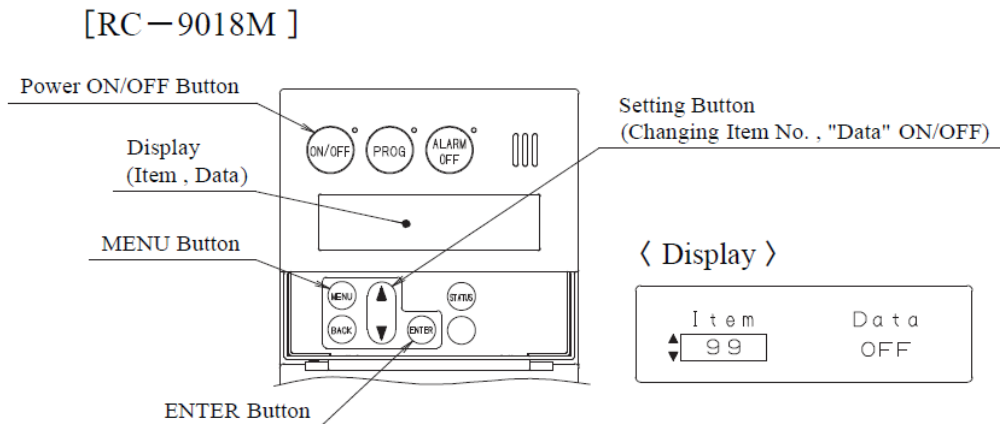
13) Attach the C-Clamp -16B at the bottom of Venturi. **Failure to do so will cause gas leaks, possibly resulting in severe personal injury or death.** Secure the Venturi to the Burner Chamber by tightening the 4 screws removed in Step 6. The screws need only to be tightened by Long Philips screwdriver. It should not be tightened using a power drill. First, insert and tighten screws 1-4 (Figure 2), but do not fully tighten these screws. Once all screws are inserted, proceed to completely tighten screws 1-4 (Figure 2).

NOTE: When tightening the screws, be certain to not apply excess force. Excess force can strip out the original holes and screws. Keep the Fan motor in horizontal. It makes easier to tighten the screws correctly.



- 14) Connect the Fan motor connector. And tie the Wiring Harness by using the Wire Clamps (Figure 1).
- 15) Before replacing the front cover, the unit must be adjusted and tested as described in the next section.

**Adjustments:**

- 1) Before electrical power is applied to the unit, install a remote controller to the unit if it is not already installed.
- 2) Reconnect the electrical power to the unit.
- 3) Within the first 10 minutes of connecting electrical power to the unit, but before pressing the Power ON/OFF button (display should be blank), hold the up button on the remote controller until the display blinks "99". This will put the unit into Maintenance Writer mode. If pressing the up button does not put the unit into Maintenance Writer mode, make sure the display is blank, unplug the unit for 60 seconds, and try again.
- 4) **FOR REMOTE CONTROLLER RC-7651M ONLY:** After accessing the Maintenance Writer mode, use the "up" and "down" buttons to change the Maintenance Writer item number display. Pressing the "FLOW METER ALARM SET" button for 0.5 seconds will change the item number setting from "ON" to "OFF". If the Priority lamp is flashing when an item number is displayed, this indicates an "ON" setting for that item number, and if the Priority lamp is off, the item number is "OFF".  
**FOR REMOTE CONTROLLER RC-9018M (Figure 8) ONLY:** After accessing the Maintenance Writer mode, use the "ENTER" button to select from "Item" or "Data". Press the "up" and "down" buttons to change the Maintenance Writer "Item" number display and on "Data" to "ON" or "OFF".



**Figure 8**

**FOR OPERATION PANEL RC-B201M (for NRCB) ONLY:** After accessing the Maintenance Writer mode, use the “up” and “down” buttons to change the Maintenance Writer item number display. Pressing the “ENTER” button for 0.5 seconds will change the item number setting from “ON” to “OFF”. If the  (DHW Icon) is flashing when an item number is displayed, this indicates an “ON” setting for that item number, and if the  (DHW Icon) is off, the item number is “OFF”.

5) Change “FC” and “FE” from OFF to ON.

6) Choose the proper conversion setting from the chart and set the “A1” Maintenance Writer item number according to the right table.

Models	Desired Gas Type	A1
EZ111DV(GQ-C3259WX-FF US) NCC199CDV(GQ-C3259WZ-FF US) NRCB199DV(GHQ-C3201WX-FF US)	Natural Gas	ON
EZ98DV(GQ-C2859WX-FF US) NRCB180DV(GHQ-C2801WX-FF US)	Propane	OFF

**NOTE: DO NOT change the other item numbers. This will cause a fault in the unit.**

7) After setting the “A1” item number for the desired gas type, press and hold the “up” and “down” buttons together for five seconds to confirm the new settings. The remote controller will emit a beeping tone and the display will go blank when the settings are confirmed. If this is not done, the unit will not put the setting changes into effect.

**NOTE:** The setting changes can be cancelled by pressing the Power ON/OFF button before confirming the settings, or if the unit is left alone for ten minutes without confirming the settings. If the default setting needs to be changed again, disconnect the electrical power to the unit, reconnect it and repeat this procedure.

8) Adjust the Gas Valve offset pressure referring to the following procedure.

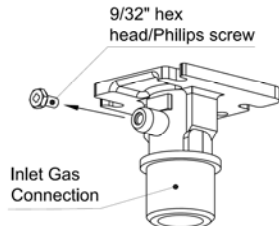
1. Shut off the main gas supply valve.
2. When the gas valve offset pressure is adjusted, remove the front cover.
3. Remove the 9/32" hex head/Phillips screw from the Gas Supply Pressure port on the Inlet Gas Connection and connect the manometer or pressure gauge using a silicon tube.
4. Loosen the screw of Offset Pressure Port on the gas valve and connect the manometer or pressure gauge using a silicon tube. For dual port manometer, use the positive pressure side.
5. Open the gas supply valve and operate the unit.
6. Press and hold both the "Mode" and "Minimum" buttons on the Circuit Board simultaneously for more than 3 seconds. After releasing your fingers, the low fire condition will last 30 minutes.
7. If gas valve offset pressure adjustment needed, remove the Cap of the gas valve, and then adjust the gas offset pressure by turning the Set Screw no more than 1/8 turn.
8. After offset pressure adjustment, do not forget to tighten the 9/32" hex head/Phillips screw to the Gas Supply Pressure Port. Tighten the screw of Offset Pressure Port and the Cap on the gas valve. To return to the normal operation, press and hold the "Mode" button for more than 3 seconds.

Gas Offset Value

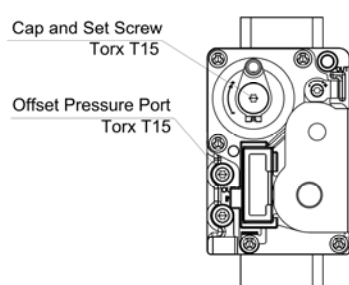
Gas type	Supply Pressure (inch H <sub>2</sub> O)	Offset (inch H <sub>2</sub> O)
NG	7.9	-0.01
LP	11.0	-0.02

\* Gas offset pressure values are subject to change without prior notice. Check the latest burner specification table.

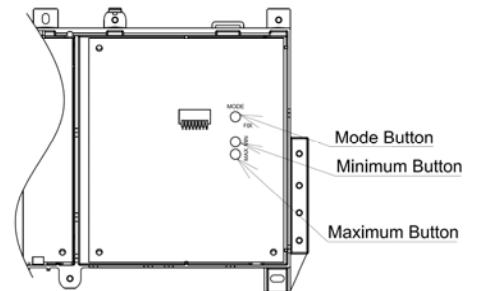
●Gas Supply Pressure Port



●Gas Valve



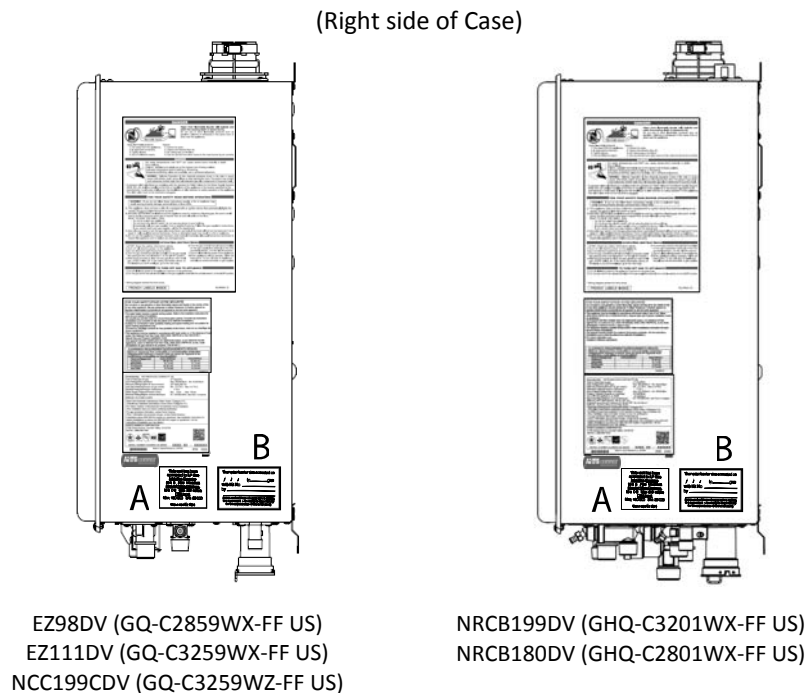
●Circuit Board



- 9) Carry out trial operation. Refer to "Trial Operation" in Installation Manual. And check the leakage.

**Apply conversion labels:**

- 1) Replace the front cover of the unit using the 4 screws previously removed.
- 2) Locate the 2 conversion stickers in English supplied in the conversion kit.  
**\*For units certified for use in Canada locate the 2 conversion stickers in French.**
- 3) Place the New Inlet sticker directly under the rating plate so as not to cover any existing markings as indicated by "A" in Figure 9.  
**\*For units certified for use in Canada place French sticker with new pressures next to English sticker.**
- 4) Fill out the required information on the remaining sticker indicating the date, gas type, kit number, and name of the company performing the conversion. Place this sticker on the right side of the case as indicated by "B" in Figure 9. Do not to cover any existing markings.  
**\*For units certified for use in Canada place French sticker with agency information next to English sticker.**



**Figure 9**



## **Installation Checklist:**

### Parts Replacement:

- Remove existing Venturi, O-Ring-Venturi, and O-ring-P18. Discard these parts.
- Replace with new Venturi, O-Ring-Venturi, and O-ring-P18.
- Make sure that Venturi, O-Ring-Venturi, and O-ring-P18 are securely in place.

### Adjustments:

- Access Maintenance Writer mode and set the A1 item number to desired gas type.
- Confirm gas type settings.

### Testing:

- Before operating the heater, verify that gas supply pressure is within operating range of the unit.
- Remove the 9/32" hex head/Philips screw from the Gas Supply Pressure port on the Inlet Gas Connection and connect the manometer or pressure gauge using a silicon tube. Attach screw after confirmation of gas supply pressure.
- If gas supply pressure is not within specification, adjust the pressure at the regulator or install a secondary regulator on the supply line connected to the unit.
- Loosen the screw of Offset Pressure Port on the gas valve and connect the manometer or pressure gauge using a silicon tube. Attach screw after confirmation of offset pressure.
- Check for gas leaks around gas inlet fitting and Venturi, Fan Motor using a gas leak detection device.
- Check and confirm the Gas Valve offset pressure. Make adjustments if necessary.
- Perform final gas leak check again with gas leak detection device.

### Apply Conversion Labels:

- Place New Inlet Sticker under the rating plate on the right side of the case.
- Fill out information on Date, Gas Type, Kit Number, Name of Company Sticker and place on the right side of the case.
- Include French stickers for water heaters certified for use in Canada.