

# 80% & 90 PLUS GAS FURNACES: GAS CONVERSION KIT INDEX NATURAL TO LP GAS RXGJ-

▲ Recognize this symbol as an indication of Important Safety Information!

## ▲ WARNING

**FURNACES USED ON LP GAS MUST BE EQUIPPED WITH 100% SAFETY SHUT-OFF CONTROLS. CONVERSION WITH THE CORRECT KIT WILL MEET THIS SAFETY REQUIREMENT. FAILURE TO USE THE PROPER KIT CAN CAUSE IMPROPER FURNACE OPERATION RESULTING IN FIRE, EXPLOSION, PERSONAL INJURY OR DEATH.**

The conversion of the Air Conditioning Division furnaces must be made by a qualified service professional. Use the following conversion kits only on the furnace model and gas control systems for which they are shown. If you do not find your exact furnace model number and Gas Code in the kit selection chart, contact your distributor or manufacturer for help in verifying the correct kit selection for your equipment. **Do not substitute** kits or kit components.

## HOW TO IDENTIFY THE CONTROL SYSTEM ON THE FURNACE TO BE CONVERTED

The model number and the first two letters of the serial number (Gas Code) on the furnace to be converted to select the proper conversion kit. This information is located on the rating plate of the furnace. The first two letters of the serial number designate the control system as applied by the manufacturer and the type gas it was manufactured to burn.

Locate the first two letters of the serial number in Chart 1. This is the control system on the furnace.

**NOTE:** The same Gas Code can exist for 80% and 90 Plus furnaces.

All furnaces are manufactured to burn natural gas. Verify correct fuel on the furnace rating plate.

## CHART 1: CONTROL SYSTEMS

- FK) WHITE-RODGERS 36E27-201 OR 36E27-203/"UT ELECTRONIC CONTROLS" 1137-1 (62-24174-01 OR 62-24174-02) IFC WITH "UT ELECTRONIC CONTROLS" 1137-10 (62-24181-01) IGNITION CONTROL/DIRECT SPARK IGNITION
- FS) WHITE-RODGERS 36G23-202E91/"UT ELECTRONIC CONTROLS" 1028-928 (62-24140-02)/DIRECT SPARK IGNITOR (62-24164-01) (SINGLE STAGE)
- FU) HONEYWELL VR8205S (60-100394-01/60-100394-02) "UT ELECTRONIC CONTROLS" 1028-928 (62-24140-02 OR 62-24140-04)/DIRECT SPARK IGNITOR (62-24164-01) (SINGLE STAGE)
- FY) HONEYWELL VR8205S (60-100394-01/60-100394-02) OR VR8205T5801 (60-100394-03)/UT ELECTRONIC CONTROLS 1028-928 (62-24140-02)/DIRECT SPARK IGNITOR (62-24141-04) (SINGLE STAGE)
- GE) HONEYWELL 8205S (60-100394-01/60-100394-02)/UT ELECTRONIC CONTROLS 1012-925B (62-24268-02)/HOT SURFACE IGNITION (62-22868-02)
- GF) HONEYWELL 8205S (60-100394-01/60-100394-02)/INVENSYS ICC-H1MC7-01 (62-24192-01)/HOT SURFACE IGNITION (62-22868-02)
- GG) WHITE-RODGERS 36G23-202E91 (60-24180-01) / UTEC 1068-402 IFC (62-101428-01) / UTEC 1104-901 IGNITION CONTROL (62-101429-01)/ DIRECT SPARK IGNITION (62-24164-01)
- GH) HONEYWELL 8205S (60-100394-01/60-100394-02)/UT ELECTRONIC CONTROLS 1097-200 (62-25338-01)/DIRECT SPARK IGNITION (62-24164-01) (80% MODELS)
- GJ) WHITE-RODGERS 36G23-202E91 (60-24180-01)/UT ELECTRONIC CONTROLS 1097-200(62-25338-01)/DIRECT SPARK IGNITIONS (62-24164-01)
- GL) WHITE-RODGERS 36G55-521 (60-101921-01)/UT ELECTRONIC CONTROLS 1095-104 (62-100610-02)/DIRECT SPARK IGNITION (62-24271-02) 2 STAGE
- GQ) WHITE-RODGERS 36G55-521 (60-101921-01)/UT ELECTRONIC CONTROLS 1095-101 IFC (62-24320-02)/DIRECT SPARK IGNITION (62-24164-01)
- GR) WHITE-RODGERS 36G55-521 (60-101921-01)/UT ELECTRONIC CONTROLS 1095-101 IFC (62-24320-02)/UT ELECTRONIC CONTROLS 1106-1 ECM INTERFACE CONTROL (62-24340-04) DIRECT SPARK IGNITION (62-24164-01)
- GS) HONEYWELL VR8205S2395 (60-100394-02)/UT ELECTRONIC CONTROLS 1028-928A IFC (62-24140-04)/PSE-R34 DIRECT SPARK IGNITION (62-24164-01)
- GT) WHITE-RODGERS 36G55-521 (60-101921-01) / UT ELECTRONIC CONTROLS 1095-104 (62-100610-02) / DIRECT SPARK IGNITION PSE-R36 (62-24141-04) 2 STAGE
- GU) WHITE-RODGERS 36G55-521 (60-101921-01) / UT ELECTRONIC CONTROLS 1095-202 (62-102636-01) / DIRECT SPARK IGNITION (62-24271-02) 2 STAGE
- GV) WHITE-RODGERS 36G55-521 (60-101921-01) / UT ELECTRONIC CONTROLS 1095-202 (62-102636-01) / DIRECT SPARK IGNITION PSE-R36 (62-24141-04) 2 STAGE
- GW) WHITE-RODGERS 36G55-521 (60-101921-01) / UT ELECTRONIC CONTROLS 1095-201 IFC (62-102635-01) / DIRECT SPARK IGNITION (62-24164-01)
- GX) WHITE-RODGERS 36G55-521 (60-101921-01) / UT ELECTRONIC CONTROLS 1095-203 IFC (62-102637-01) / DIRECT SPARK IGNITION (62-24164-01)
- GY) HONEYWELL 8205S (60-100394-01/60-100394-02) OR VR8205T5801 (60-100394-03) UT ELECTRONIC CONTROLS 1097-200 (62-25338-01) / DIRECT SPARK IGNITION (62-24141-04) (90 PLUS MODELS)
- GZ) WHITE-RODGERS 36G55-521 (60-101921-01)/UT ELECTRONIC CONTROLS 1137-100 (62-102784-01) / DIRECT SPARK IGNITION (62-24164-01)
- HA) WHITE-RODGERS 36J27-503 (60-102787-01), UTEC ELECTRONIC CONTROL 1137-83-100 (62-102783-01) W/DIRECT SPARK IGNITION (62-24141-04)
- HB) WHITE-RODGERS 36J27-503 (60-102787-01), UTEC ELECTRONIC CONTROL 1137-83-100 (62-102783-01) W/DIRECT SPARK IGNITION (62-24271-02)
- HC) HONEYWELL VR8205N 8829 (60-24394-01)/UT ELECTRONIC CONTROLS 1095-201 IFC (62-102635-01)/DIRECT SPARK IGNITION (62-24164-01)
- HD) HONEYWELL VR8205N 8829 (60-24394-01)/UT ELECTRONIC CONTROLS 1095-203 IFC (62-102637-01)/DIRECT SPARK IGNITION (62-24164-01)
- HE) HONEYWELL VR8205N 8829 (60-24394-01)/UT ELECTRONIC CONTROLS 1095-202 (62-102636-01)/DIRECT SPARK IGNITION PSE-R36 (62-24141-04) 2 STAGE
- HF) HONEYWELL VR8205N 8829 (60-24394-01)/UT ELECTRONIC CONTROLS 1095-202 (62-102636-01)/DIRECT SPARK IGNITION (62-24271-02) 2 STAGE
- HG) WHITE-RODGERS 36E27-203 (60-24215-03), UTEC ELECTRONIC CONTROL 1137-83-100 (62-102783-01) W/DIRECT SPARK IGNITION (62-24141-04)
- HH) WHITE-RODGERS 36E27-203 (60-24215-03), UTEC ELECTRONIC CONTROL 1137-83-100 (62-102783-01) W/DIRECT SPARK IGNITION (62-24271-02)
- HJ) HONEYWELL VR8205N 8829 (60-24394-01)/UTEC ELECTRONIC CONTROLS 1095-206 (62-103189-01) / W/DIRECT SPARK IGNITION PSE-R36 (62-24141-04)
- HK) WHITE-RODGERS 36G55-521 (60-101921-01), UTEC ELECTRONIC CONTROLS 1095-206 (62-103189-01) W/DIRECT SPARK IGNITION PSE-R36 (62-24141-04)
- HL) WHITE-RODGERS 36G23-202E91 (60-24180-01) / UT ELECTRONIC CONTROLS 1028-928 (62-24140-04) / DIRECT SPARK IGNITOR (62-24141-04)
- HM) HONEYWELL VR8205T (60-100394-03) / UT ELECTRONIC CONTROLS 1028-928 (62-24140-04) / DIRECT SPARK IGNITOR (62-24141-04)

- HQ) HONEYWELL VR8205N 8829 (60-24394-01)/UTEC ELECTRONIC CONTROLS 1095-206 (62-103189-01)/ W/DIRECT SPARK IGNITION PSE-R39 (62-24271-02)
- HR) WHITE-RODGERS 36G55-521 (60-101921-01), UTEC ELECTRONIC CONTROLS 1095-206 (62-103189-01) W/DIRECT SPARK IGNITION PSE-R39 (62-24271-02)
- HS) HONEYWELL VR8205S (60-100394-02)/UTEC ELECTRONIC CONTROLS 1028-930R2 (62-103498-01) W/DIRECT SPARK IGNITION PSE-R34 (62-24164-01)
- HT) WHITE-RODGERS 36G23-202E91 (60-24180-01)/UTEC ELECTRONIC CONTROLS 1028-930R2 (62-103498-01) W/DIRECT SPARK IGNITION PSE-R34 (62-24164-01)
- HU) WHITE-RODGERS 36J27-503 (60-102787-01), WHITE-RODGERS ELECTRONIC CONTROLS 50C51M-101 (62-103565-01), DELTA CONTROLS - INDUCER CONTROL VFD001L11A (62-103578-01) W/HOT SURFACE IGNITION (62-103541-01 (W-R)
- HV) HONEYWELL VR8205T (60-100394-03)/UTEC ELECTRONIC CONTROLS 1028-930 (62-103498-01) W/DIRECT SPARK IGNITION PSE-R34 (62-24164-01)
- JA) WHITE-RODGERS 36J27-503 (60-102787-01), WHITE-RODGERS ELECTRONIC CONTROLS 50C51M-102 (62-104131-01), DELTA CONTROLS INDUCER CONTROL VFD001L11A (62-103578-01) WITH WHITE-RODGERS HOT SURFACE IGNITION (62-103541-01)

## EXAMPLE: CONTROL SYSTEMS

SERIAL NUMBER ON FURNACE RATING PLATE: **GY**      **5D302**      **F2607**      **00135**

|  
CONTROL SYSTEM

The first two letters in the serial number are "GY." When the "GY" is located in Chart 1, the control system in the furnace is a Honeywell VR8205S Valve, manufactured to burn natural gas.

With the model number from the rating plate, the control system from Chart 1, the type gas it presently burns, the proper conversion kit can now be selected.

## EXPLANATION: USING THE CONVERSION KIT CHARTS

- STEP 1. Find the control system by serial number code letters in the Gas Code Column in the conversion kit chart.
- STEP 2. The type furnace and model number are listed on the left hand column. **IMPORTANT: Verifying the model number of the furnace is a necessity, since there are common serial number codes which are used on the 80% & 90 Plus models.**
- STEP 3. By going down in the control system and across in the model number line, the proper kit number can be located.

### EXAMPLE

You wish to convert an Upflow/Horizontal natural gas furnace model (-)GPN-12E from natural gas to LP gas.

Using the information from the first example, the first two letters of the serial number were "GH." Locate the serial number code letters "GH" in the Gas Code Column of Chart 2: Conversion Kits - Natural gas to LP gas - 80% models. Locate the model number of the unit in the first column on the left on the chart, and find that for U.S./Canadian models an FP15 conversion kit would be used.

## CHART 2: “80%MODELS” CONVERSION KITS - NATURAL GAS TO LP GAS

| Furnace Model Number                                    | Type of Ignition            | Gas Code   | Kit No.       |             |
|---|-----------------------------|------------|---------------|-------------|
|   |                             |            | U.S./Canadian | Export Only |
| (-)GLT -07 to -12, (-)GLS -05 to -15, (-)GLN -05 to -15 | Direct Spark (single-stage) | FU, FS, HT | FP-15         |             |
| (-)GLQ -05 to -15                                       | Direct Spark (two-stage)    | GQ, GW     | FP-32         |             |
|   | Direct Spark (two-stage)    | HC         | FP-25         |             |
| (-)GLR -05 to -15                                       | Direct Spark (two-stage)    | GR, GX     | FP-32         |             |
|   | Direct Spark (two-stage)    | HD         | FP-25         |             |
| (-)GPT -05 to -12, (-)GPS -05 to -15, (-)GPN -05 to -15 | Direct Spark (single-stage) | FS, FU, HT | FP-15         |             |
| SGPN -04 to -13   | Direct Spark (50HZ)         | GS         |               | FP-16       |
| (-)GPQ -05 to -15                                       | Direct Spark (two-stage)    | GQ, GW     | FP-32         |             |
|   | Direct Spark (two-stage)    | HC         | FP-25         |             |
| (-)GPR -05 to -15                                       | Direct Spark (two-stage)    | GR, GX     | FP-32         |             |
|   | Direct Spark (two-stage)    | HD         | FP-25         |             |
| RGLE-07, 10 & 12  | Direct Spark (two-stage)    | GZ         | FP-32         |             |
| RGPE-05, 07, 10 & 12                                    | Direct Spark (two-stage)    | GZ         | FP-32         |             |

## CHART 3: 80% HIGH ALTITUDE INSTRUCTIONS (Refer to applicable furnace installation instructions for details)

Caution. The National Fuel Gas Code (NFGC) guidelines should be followed when converting these furnaces for high altitude operation. The National Standard of Canada, Natural Gas and Propane Installation Code B149.1 guidelines should be followed when converting these furnaces in Canada.

34" 80 Plus furnaces installed above 2000 ft. require the furnace to be de-rated 4% per thousand feet. Note # Factory installed orifices are calculated and sized based on a sea level Natural Gas heating value of 1075 BTU per cubic ft. Regional reduced heating values may nullify the need to change orifices except at extreme altitudes.

$$\text{Input BTU/HR} = \frac{\text{Heating Value of Gas (BTU/Ft}^3) \times 3600 \times \text{correction factor}}{\text{Time in Seconds (for 1 cu.ft.) of Gas}}$$

Example of orifice sizing using the National Fuel Gas Code Appendix F:

### Example: 900 BTU/ft<sup>3</sup> Regional Natural Gas Heating Value

$$I / H = Q$$

$$25000 / 900 = 27.78 \text{ ft}^3$$

I = Sea Level input (per burner): 25000

H = Sea Level Heating Value: 900

Q = 27.78 ft<sup>3</sup> Natural Gas per hour.

From Table F.1 of National Fuel Gas Code Handbook, 2002 (3.5" w.c. column)

Orifice required at Sea Level: # 40

From Table F.4 of National Fuel Gas Code Handbook, 2002

Orifice required at 5000 ft. elevation (4% de-rate per thousand ft): # 42

Orifice required at 8000 ft. elevation (4% de-rate per thousand ft): # 44

### Example: 1050 BTU/ft<sup>3</sup> Regional Natural Gas Heating Value

$$I / H = Q$$

$$25000 / 1050 = 23.81 \text{ ft}^3$$

I = Sea Level input (per burner): 25000

H = Sea Level Heating Value: 1050

Q = 23.81 ft<sup>3</sup> Natural Gas per hour.

From Table F.1 of National Fuel Gas Code Handbook, 2002 (3.5" w.c. column)

Orifice required at Sea Level: # 43

From Table F.4 of National Fuel Gas Code Handbook, 2002

Orifice required at 5000 ft. elevation (4% de-rate per thousand ft): # 45

Orifice required at 8000 ft. elevation (4% de-rate per thousand ft): # 47

| For U.S. and Canada<br>Natural Gas Orifice Drill Size (4% per 1,000 ft. De-Rate)<br>80% Burner Input (per burner) 25,000 BTU @ Sea Level |           |                 |                 |                 |                 |                 |                 |                 |  |
|--|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| Annual Avg. Heat Value (btu per ft <sup>3</sup> )  | Sea level | 2000 to 2999 ft | 3000 to 3999 ft | 4000 to 4999 ft | 5000 to 5999 ft | 6000 to 6999 ft | 7000 to 7999 ft | 8000 to 8999 ft |  |
| 850  | 38        | 39              | 40              | 41              | 41              | 42              | 42              | 43              |  |
| 900  | 40        | 41              | 42              | 42              | 42              | 43              | 43              | 44              |  |
| 975  | 41        | 42              | 42              | 42              | 43              | 43              | 44              | 44              |  |
| 1075   | 42        | 42              | 43              | 43              | 43              | 44              | 44              | 45              |  |
| 1170   | 43        | 44              | 44              | 44              | 45              | 45              | 46              | 47              |  |

| For U.S. and Canada L.P.<br>Gas Orifice Drill Size (4%<br>per 1,000 ft. De-Rate)<br>80% Burner Input (per burner)<br>25,000 BTU @ Sea Level |                          |              |
|---|--------------------------|--------------|
| Altitude  | Input (per burner) 15000 | Orifice Size |
| 0 to 2000 ft.   | 25000                    | #54          |
| 3000  | 24000                    | #54          |
| 4000  | 23000                    | #54          |
| 5000  | 22000                    | #54          |
| 6000  | 21000                    | #54          |
| 7000  | 20000                    | #54          |
| 8000  | 19000                    | #55          |
| 9000  | 18000                    | #55          |
| 10000   | 17000                    | #55          |

### LP Gas

LP Gas is a manufactured gas that has consistent heating value across most regions.

The NFGC guidelines are used with the following exception: The recommended LP Gas high altitude orifice selections differ slightly in that the NFGC LP orifice chart, as they are not accurate for Rheem products. The National Fuel Gas Code LP orifices are based on an 11" of water column pressure at the orifice, which differs from Rheem products that use 10" of water column at the orifice. This difference requires a deviation from the NFGC orifice size recommendations. The Sea Level input should still be reduced by 4% per thousand ft. and the orifice size must be selected based on the reduced input selection chart at right.

**Orifice Ordering Information:** Orifice sizes are selected by adding the 2-digit drill size required in the orifice part number. Drill sizes available are 39 through 64; metric sizes available 1.10mm (-90) and 1.15mm (-91); Orifice Part Number 62-22175-(drill size).

Example 1: #60 drill size required – Part # 62-22175-60

Example 2: 1.15mm drill size orifice required – Part # 62-22175-91

# CHART 4: "90PLUSMODELS" CONVERSION KITS - NATURAL GAS TO LP GAS

| Furnace Model Number                                     | Type of Ignition            | Kit No.    |               |
|--|-----------------------------|------------|---------------|
|  |                             | Gas Code   | U.S./Canadian |
| RGFD -06 to -12  | Direct Spark (Modulating)   | FK         | FP-07         |
| RGGD -06 to -12  | Direct Spark (Modulating)   | FK         | FP-07         |
| RGJD -06 to -12  | Direct Spark (Modulating)   | FK         | FP-07         |
| RGRS -04 to -12, (-)GRA -04 to -12, (-)GRB-07, (-)GRT-07 | Direct Spark (single-stage) | FY, FS, GY | FP-02         |
| RGTS -04 to -12, (-)GTA -04 to -12                       | Direct Spark (single-stage) | FY, FS, GY | FP-02         |
| RGRK -04 to -12/<br>RGRL-04, -06, -07, -09, -10          | Direct Spark (two-stage)    | GT, GV     | FP-31         |
| RGTK -04 to -12  | Direct Spark (two-stage)    | HE         | FP-26         |
|  | Direct Spark (two-stage)    | GL, GU     | FP-31         |
|  | Direct Spark (two-stage)    | HF         | FP-26         |
| RGFE-06 to -12/RGFG-06 to -12                            | Direct Spark (Com. Mod.)    | HA/HU      | FP-27         |
| RGGE-06 to -12   | Direct Spark (Com. Mod.)    | HB         | FP-27         |
| RGFE-06 to -12   | Direct Spark (Comm. Mod.)   | HG         | FP27MX        |
| RGGE-06 to -12   | Direct Spark (Comm. Mod.)   | HH         | FP27MX        |
| RGJF-06 to -12   | Direct Spark (Comm. Mod.)   | HH         | FP27MX        |
| RGFH-06 to -12   | Hot Surface (Com. Mod.)     | JA         | FP-27         |
| RGRM-04 to -12   | Direct Spark (two-stage)    | HJ         | FP-26         |
|  |                             | HK         | FP-31         |
| RGRC-04 to -10   | Direct Spark (single-stage) | HL, HM     | FP-02         |
| RGTC-04 to -10   | Direct Spark (single-stage) | HL, HM     | FP-02         |
| RGTM-06 to -10   | Direct Spark (two-stage)    | HQ         | FP-26         |
|  |                             | HR         | FP-31         |

# CHART 5: "90PLUSMODELSONLY" BURNER ORIFICE SIZES – Natural Gas

Caution. The National Fuel Gas Code (NFGC) guidelines should be followed when converting these furnaces for high altitude operation.

34" 90 Plus furnaces installed at high elevations require the installation of a high altitude kit for proper operation. The high altitude kit consists of a high altitude pressure switch that replaces the pressure switch attached to the induced draft blower. The kit also contains gas orifices for a 10% de-rate based on 1075 BTU per hour Natural gas heating value (meets Canadian high altitude requirements).

The pressure switch must be installed at elevations above 5000 ft. Elevations above 2000 ft. require the furnace to be de-rated 4% per thousand feet. Note # Factory installed orifices are calculated and sized based on a sea level Natural Gas heating value of 1075 BTU per cubic ft. Regional reduced heating values may nullify the need to change orifices except at extreme altitudes.

$$\text{Input BTU/HR} = \frac{\text{Heating Value of Gas (BTU/Ft}^3\text{)} \times 3600 \times \text{correction factor}}{\text{Time in Seconds (for 1 cu.ft.) of Gas}}$$

Example of orifice sizing using the National Fuel Gas Code Appendix F:

### Example: 900 BTU/ft<sup>3</sup> Regional Natural Gas Heating Value

I/H = Q  
 15000 / 900 = 16.68 ft<sup>3</sup>/hr  
 I = Sea Level input (per burner): 15000  
 H = Sea Level Heating Value: 900  
 Q = 16.68 ft<sup>3</sup> Natural Gas per hour.  
 From Table F.1 of National Fuel Gas Code Handbook, 2002 (3.5" w.c. column)  
 Orifice required at Sea Level: # 48  
 From Table F.4 of National Fuel Gas Code Handbook, 2002  
 Orifice required at 5000 ft. elevation (4% de-rate per thousand ft): # 50  
 Orifice required at 8000 ft. elevation (4% de-rate per thousand ft): # 51

### Example: 1050 BTU/ft<sup>3</sup> Regional Natural Gas Heating Value

I/H = Q  
 15000 / 1050 = 14.28 ft<sup>3</sup>/hr  
 I = Sea Level input (per burner): 15000  
 H = Sea Level Heating Value: 1050  
 Q = 14.28 ft<sup>3</sup> Natural Gas per hour.  
 From Table F.1 of National Fuel Gas Code Handbook, 2002 (3.5" w.c. column)  
 Orifice required at Sea Level: # 50  
 From Table F.4 of National Fuel Gas Code Handbook, 2002  
 Orifice required at 5000 ft. elevation (4% de-rate per thousand ft): # 51  
 Orifice required at 8000 ft. elevation (4% de-rate per thousand ft): # 52

| For U.S. and Canada<br>Natural Gas Orifice Drill Size (4% per 1000 ft. De-Rate)<br>90 Plus Burner Input (per burner) 15,000 BTU @ Sea Level |           |                 |                 |                 |                 |                 |                 |                 |         |
|---|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------|
| Annual Avg. Heat Value (btu per ft <sup>3</sup> )   | Sea level | 2000 to 1999 ft | 3000 to 2999 ft | 4000 to 3999 ft | 5000 to 4999 ft | 6000 to 5999 ft | 7000 to 6999 ft | 8000 to 7999 ft | 8999 ft |
| 850   | 47        | 48              | 48              | 49              | 49              | 49              | 50              | 50              | 50      |
| 900   | 48        | 49              | 49              | 49              | 50              | 50              | 50              | 51              | 51      |
| 975   | 49        | 50              | 50              | 50              | 51              | 51              | 51              | 52              | 52      |
| 1075  | 50        | 51              | 51              | 51              | 51              | 52              | 52              | 52              | 52      |
| 1170  | 51        | 51              | 52              | 52              | 52              | 53              | 53              | 53              | 53      |

| For U.S. and Canada L.P. Gas Orifice Drill Size<br>(4% per 1000 ft. De-Rate)<br>90 Plus Burner Input (per burner)<br>15,000 BTU @ Sea Level |                          |              |
|---|--------------------------|--------------|
| Altitude  | Input (per burner) 15000 | Orifice Size |
| 0 to 2000 ft.   | 15000                    | 1.15 mm      |
| 2001 to 3000  | 13200                    | 1.15 mm      |
| 3001 to 4000  | 12600                    | 1.10 mm*     |
| 4001 to 5000  | 12000                    | #58*         |
| 5001 to 6000  | 11400                    | #59**        |
| 6001 to 7000  | 10800                    | #60**        |
| 7001 to 8000  | 10200                    | #62**        |
| 8001 to 9000  | 9600                     | #63**        |
| 9001 to 10000   | 9000                     | #64**        |

\* -GRL-07 and -GRL-10 models use 1.15mm  
 -GRM-07 and -GRM-10 models use 1.15mm  
 all of -GTM models use 1.15mm  
 -GRC and GTC  
 \*\* -GRL-07 uses 1.10mm, -GRL-10 uses 1.10mm  
 -GRM-07 uses 1.10mm, -GRM-10 uses 1.10mm  
 -GRC and GTC  
 all of -GTM models use 1.10mm

## LP Gas

LP Gas is a manufactured gas that has consistent heating value across most regions. The NFGC guidelines are used with the following exception: The recommended LP Gas high altitude orifice selections differ slightly in that the NFGC LP orifice chart, as they are not accurate for Rheem products. The National Fuel Gas Code LP orifices are based on an 11" of water column pressure at the orifice, which differs from Rheem products that use 10" of water column at the orifice. This difference requires a deviation from the NFGC orifice size recommendations. The Sea Level input should still be reduced by 4% per thousand ft. and the orifice size must be selected based on the reduced input selection chart above right.

**Orifice Ordering Information:** Orifice sizes are selected by adding the 2-digit drill size required in the orifice part number. Drill sizes available are 39 through 64; metric sizes available 1.10mm (-90) and 1.15mm (-91); Orifice Part Number 62-22175-(drill size).

Example 1: #60 drill size required – Part # 62-22175-60

Example 2: 1.15mm drill size orifice required – Part # 62-22175-91