

## TEMPSTAR/COMFORTMAKER

INNER-CITY PRODUCTS - UPFLOW

<b>MODEL NUMBER:</b>	NUG 3050AFA1 NUG 3075AFA1 NUG 30100AHA1 NUG 30123AKA1	GUJ 050N12A1 GUJ 075N12A1 GUJ 100N16A1 GUJ 125N20A1
<b>BTU SIZES:</b>	50,000 - 75,000 - 100,000 - 125,000 BTU'S	

### ACCESSIBILITY CLEARANCE

30" clearance minimum for service

### CLEARANCE FROM COMBUSTIBLE MATERIAL

Rear = 0"  
 Front = 6"  
 All sides of plenum = 1"  
 Sides = 0"  
 Vent = 6" - Type "C" = 1" - Type "B"  
 Top of furnace = 6"

Do not install on carpet, tile, or other combustible materials other than wood flooring

### COLD AIR RETURN AIR DUCTS

Bottom or side returns only. Returns from the back are not allowed. Knockout panel in bottom of furnace must be in place when using side return.

### GARAGE

Burners and ignition sources installed at least 18" above the floor protected from physical damage by a vehicle.

### GENERAL

Upright furnace installation only

### HIGH ALTITUDE INSTALLATIONS

<b>Deration</b>	4% per 1,000 feet elevation above 2,000 feet - standard may be accomplished by manifold pressure change or orifice change - see tables.
<b>Orifice</b>	Change only
<b>Regulator Pressure</b>	4.5 inches inlet pressure minimum - 3.5 inches manifold + or - .3" - see table on deration
<b>Pressure Switch</b>	

MOBILE HOME

Not approved for mobile home use.

VENTING MATERIAL AND REQUIREMENTS

Vent Pipe	Type "C" aluminum Type "B" aluminum
Vent Fittings	Type "C" aluminum Type "B" aluminum

Category I appliance.

VENT CLEARANCE FROM COMBUSTIBLE MATERIAL

Type "C" = 6"  
Type "B" = 1" aluminum vent only

VENTING PROCEDURE

Vent according to GAMA vent charts using the nat. column.

MISCELLANEOUS INFORMATION/NOTES

This furnace has a diverter and must be match tested.

**WARNING: Models designated for natural gas are to be used with natural gas only!**

Ensure furnace is equipped with the correct main burner orifices. Refer to Figure 7 for correct orifice size for a given heating value and specific gravity for natural and propane gas. Note that this chart is ONLY for installations below 2000 feet in altitude.

These units may be used at full input rating when installed at altitudes up to 2000'. When installed above 2000', the input must be decreased 4% for each 1000' above sea level. This may be accomplished by a simple adjustment of manifold pressure or an orifice change, or a combination of a pressure adjustment and an orifice change. The changes required depend on the installation altitude and the heating value of the fuel. TABLES 1 & 2 show the proper furnace manifold pressure and gas orifice size to achieve proper performance based on elevation above sea level for both natural gas and propane.

Figure 7		Orifice Sizes (below 2000 feet)		
Gas Type	Manifold Pressure	Specific Gravity	Heating Value (BTU per Cubic Ft.)	Orifice Size (Drill #)
Natural	3.5" w.c. 0.9kPa w.c.	0.6	800	40
			900	41
			1000	42
			1100	43
Propane	10" w.c. 2.5kPa w.c.	1.53	2500	54

To use the natural gas table, first consult your local gas utility for the heating value of the gas supply. Select the heating value on the vertical border and follow across the table until the appropriate elevation for the installation is reached. The first value in the box at the intersection of the heating value and elevation will be the manifold pressure required. If a gas orifice change is also required, the box is shaded. The required orifice size is shown at the bottom of the table.

**Operation Above 2000 Feet Altitude**

**WARNING**

Fire, Explosion, Carbon Monoxide Poisoning Hazard.

This conversion shall be done by a qualified service agency in accordance with the Manufacturer's instructions and all applicable codes and requirements, or in the absence of local codes, the applicable national codes.

Failure to follow these instructions exactly can result in property damage, personal injury and/or death.

Sea Level  
 High Altitude Input Rate = Nameplate x (Multiplier)  
 Input Rate

Elevation	High Altitude Multiplier
2000' - 2999'	0.92
3000' - 3999'	0.88
4000' - 4999'	0.84
5000' - 5999'	0.80
6000' - 6999'	.0.76
7000' - 8000'	.0.72

**MANIFOLD PRESSURE AND ORIFICE SIZE FOR HIGH ALTITUDE APPLICATIONS**

Table 1		NATURAL GAS				
		MEAN ELEVATION FEET ABOVE SEA LEVEL				
HEATING VALUE BTU/CU. FT.	2000 to 2999	3000 to 3999	4000 to 4999	5000 to 5999	6000 to 6999	7000 to 8000
800	3.5" wc	3.5" wc	3.5" wc	3.5" wc	3.2" wc	2.9" wc
850	3.5" wc	3.5" wc	3.5" wc	3.2" wc	2.9" wc	2.6" wc
900	3.5" wc	3.4" wc	3.1" wc	2.8" wc	2.5" wc	2.3" wc
950	3.3" wc	3.1" wc	2.8" wc	2.5" wc	2.3" wc	3.5" wc
1000	3.0" wc	2.8" wc	2.5" wc	2.3" wc	3.5" wc	3.1" wc
1050	2.7" wc	2.5" wc	2.3" wc	3.5" wc	3.2" wc	2.8" wc
1100	2.5" wc	2.3" wc	3.5" wc	3.2" wc	2.9" wc	2.6" wc
Orifice Size	#42	#42	#45	#45	#45	#45

SHADED AREA REQUIRES ORIFICE CHANGE. NO SHADING INDICATES MANIFOLD PRESSURE CHANGE ONLY.

### 3. Wiring Diagram

