

APPENDIX 7.2. DECODING OF MANUFACTURER MODEL NUMBERS

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The Department used manufacturer model numbers, among other furnace characteristics, to determine nominal airflow capacity. Manufacturers often code furnace specifications into their model numbers. This appendix illuminates the furnace specifications from manufacturer model numbers.

An Amana model number is as an example of how manufacturers code furnace characteristics. Table 7.2.1 shows the Amana model number “GUID045CA30.” The first row of the table shows the model number broken into eight cells. The fifth, sixth, and seventh characters of the model number are grouped together. The tenth and eleventh characters are grouped together. The second row gives an explanation for each character or group of characters. Row three deciphers the character or group. Deciphering the model number shows that this Amana furnace model is an upflow gas furnace with induced draft, a nominal output of 45K Btuh, that it is not NO_x certified, and has an airflow capability of three tons.

Table 7.2.1 Amana Furnace Model Number Description

G	U	I	D	045	C	A	30
Product Type	Supply Type	Furnace Type	Model Features	Nominal Input	Design Series	Additional Features	Airflow Capability
G: Gas Furnace	U: Upflow	I: Induced Draft (80%)	D: Air Command 80 SV (Category I Venting)	045: 45,000 Btuh	C: Third Series	A: Standard Unit (not NO _x certified)	30: 3 Tons

All manufacturers have similar coding schemes for their furnace model numbers. Tables 7.2.1-7.2.11 show model numbers from the major manufacturers and an explanation of their conventions.

Table 7.2.2 Carrier Model Number Description

58WAV	045	150	08
Furnace Series Configuration/Type	Input Capacity (btu/h)	Series Number	Nominal Cooling Size (Airflow) (400 CFM per 12,000 btu/h)
58WAV = High Efficiency Induced Combustion Upflow Furnace	045 = 44,000 070 = 66,000 091 = 88,000 111 = 110,000 136 = 132,000 155 = 154,000		08 = 800 CFM 12 = 1200 CFM 14 = 1400 CFM 16 = 1600 CFM 20 = 2000 CFM

Table 7.2.3 ICP Model Number Description

N	9	MP	2	075	F	12	A	#
Brand Identifier	Model Identifier	Installation Configuration	Major Design Feature	Heating Input (mbtu/h)	Cabinet Width (inches)	Cooling Airflow	Marketing Digit	Engineering Rev.
N = Non-Brand Specific (Generic) T = Tempstar	8 = Non-Condensing 9 = Condensing	MP = Multiposition UP = Upflow DN = Downflow UH = Upflow/ Horizontal HZ = Horizontal DH = Downflow/ Horizontal	1 = One pipe 2 = Two pipe D = 1 or 1 pipe L = Low Nox N = Single Stage P PVC Vent T = Two Stage V = Variable Speed		B = 15.5" J = 22.8" F = 19.1" L = 24.5"	08 = 800 12 = 1200 14 = 1400 16 = 1600 20 = 2000	Denotes minor change	Denotes minor change

Table 7.2.4 Goodman Model Number Description

GMNT	040	3
Unit Type	Input Capacity (Btu/h)	Nominal Cooling Capacity (tons)
GMNT = Multi-position gas furnace	040 = 40,000 Btu/h	3 = 3 tons

Table 7.2.5 Lennox Model Number Description

G	40	UH	24	A	045	X
Unit Type	Series	Configuration	Nominal Add-On Cooling Capacity	Cabinet Width	Heating Input (btu/h)	CA emission requirements
G = Gas Furnace	40 = Merit Series 80% 50 = Elite 80% 60 = 2-stage 80%	UH = Upflow/Horizontal DF = Downflow/Horizontal	24 = 2 Tons 36 = 3 Tons 48 = 4 Tons 60 = 5 Tons	A = 14-1/2 B = 17-1/2 C = 21 D = 24-1/2	045 = 44,000 070 = 66,000 090 = 88,000 110 = 110,000 135 = 132,000 155 = 154,000	X = meets California NOx standards

Table 7.2.6 Armstrong Model Number Description

G	1N	80	A	H	100	D	20	B		1A
Product Family	Furnace Type	Nominal AFUE	Series	Configuration	Heating Input x 1000 (btu/h)	Motor Type	Nominal Maximum CFM x 100	Cabinet Width	Low NOx Model	Series
	1N = Single Stage Heat, Non-Direct Vent 1D = Single Stage Heat, Direct Vent 2D = Two Stage Heat, Direct Vent			H = Horizontal U = Upflow T = Upflow/ Horizontal R = Downflow/ Horizontal		D = Direct Drive		A = 13-1/2 B = 17 C = 20-1/2	L = Low NOx Model	

Table 7.2.7 Trane/American Standard Model Number Description

T	U	Y	080	R	9	V3	V	0
Brand Identifier	Furnace Configuration	Type	Heating Input (mbtu/h)	Major Design Change	Power Supply and Fuel	Airflow Capacity for Cooling (400 CFM/Ton)	Minor Design Change or	Service Digit
T = Trane A = American Standard	U = Upflow/ Horizontal D = Downflow/ Horizontal	C = Condensing D = Induced Draft E = Electronic Ignition X = Direct Vent Condensing Y = Direct Vent Condensing Variable Speed		C = Single Stage R = Two-Stage All other = Standard system	115 Volt/ Natural Gas	3 = 3 Tons V3 = 1½-3 Tons, Variable Speed Motor (ICM) V4 = 2 - 4 Tons, Variable Speed Motor (ICM) V5 = 3 - 5 Tons, Variable Speed Motor (ICM)	H = Upflow/ Horizontal V = Variable Speed Motor	

Table 7.2.8 Rheem Non-Condensing Model Number Description

R	G	P	J	07	E	A	U	E	R
Brand Identifier	Fuel Type	Non-Condensing Furnace Type	Design Series	Heating Input (kbtu/h)	Ignition Type	Variations	Blower Size	Cooling Designation (CFM)	Natural Gas Fuel Code
R = Rheem U = Ruud W = Weatherking	G = Natural Gas	D = Upflow L = Downflow P = Upflow/ Horizontal	J = Acclaim A = Acclaim II K = Acclaim II Plus 2 L = Acclaim II Plus 2 LXE	04 = 45 05 = 50 06 = 67.5 07 = 75 10 = 100 12 = 125 15 = 150	E = Electric Ignition N = Electric Ignition - NOx Model	A = Standard B = Wide Cabinet	U = 11x6 M = 11x7 R = 11x10	S = 500-1200 E = 1100-1300 G = 1450-1750 J = 1900-2075	R = US A = Canada

Table 7.2.9 Rheem Condensing Model Number Description

R	G	T	J	07	E	M	A	E	S
Brand Identifier	Fuel Type	Condensing Furnace Type	Design Series	Heating Input (kbtu/h)	Ignition Type	Blower Size	Variations	Cooling Designation (CFM)	Natural Gas Fuel Code
R = Rheem U = Ruud W = Weatherking	G = Natural Gas	T = Downflow/ Horizontal R = Upflow M = Upflow Modulating	J = Classic 90 A = Classic 90 Plus D = Classic 90 Plus Modulating	04 = 45 06 = 60 07 = 75 09 = 90 10 = 105 12 = 120	E = Electric Ignition N = Electric Ignition - (Low NOx)	M = 11x7 R = 11x10 Z = 12x11 Y = 12x7	A = Standard B = Wide Cabinet C = Single/Multi Zone	E = 1100-1300 G = 1500-1700 J = 1900-2100 K = 600-1200 M = 1200-2000	S = US B = Canada

Table 7.2.10 York Furnace Model Number Description

P4	HU	A	12	N	032	01
	Furnace Configuration	Cabinet Size Width	Design Series		Output Capacity (btu/h)	
	HU = Upflow Horizontal	A = 14-1/2 B = 17-1/2 C = 21 D = 24-1/2	12 = 1200 CFM 16 = 1600 CFM 20 = 2000 CFM		032 = 32,000	

Table 7.2.11 Nordyne Model Number Description

G	6	R	A	144	C	20	C
Furnace Fuel Type	Design Series	Furnace Type	Furnace Configuration	Heating Input (btu/h)	Certification Type	Nominal CFM	Cabinet Width
G, FG, KG, L = Gas	6 or 1	R = Residential T = Residential, two-stage	A = Upflow C = Upflow, Condensing K = Downflow L = Downflow, condensing	045 = 45,000 060 = 60,000 072 = 72,000 096 = 96,000 120 = 120,000 144 = 144,000	C = US/Canada N = NOx US	08 = 800 CFM 12 = 1200 CFM V = Variable Speed	A = 14-1/4 B = 19-3/4 C = 22-1/2

The Department used this information along with product literature and installation manuals to develop a detailed database of furnace characteristics for models that are currently being sold. The database is available on the DOE website at:

http://www.eere.energy.gov/buildings/appliance_standards/residential/furnaces_boilers.html.