APPENDIX G. DECODING OF MANUFACTURER MODEL NUMBERS

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APPENDIX G. DECODING OF MANUFACTURER MODEL NUMBERS

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 coding of different manufacturer model numbers.

An Amana model number is shown as an example of how manufacturers code furnace characteristics. Table G.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 a nominal airflow capability appropriate for a three ton air conditioner.

Table G.1 Example Furnace Model Number Description[1]

G	**U**	**I**	**D**	**045**	**C**	**A**	**30**
Product Type	Supply Type	Furnace Type	Model Features	Nominal Input (kBtu/h)	Design Series	Additional Features	Nominal AC Size
G: Gas Furnace	U: Upflow	I: Induced Draft (80%)	D: Air Command 80 SV (Category I Venting)	045	C: Third Series	A: Standard Unit (not NOx certified)	30: 3 Tons

All manufacturers have similar coding schemes for their furnace model numbers. Tables G.2-G.16 show model numbers from the major manufacturers and an explanation of their conventions.

Table G.2 Amana Model Number Description[2]

A	**M**	**S**	**8**	**070**	**3**	**A**	**N**	**A**
Brand	Air Flow Direction	Description	AFUE	Nominal Input (kBtu/h)	Max CFM @0.5" ESP	Cabinet Width	NOx	Revision
A = Amana B = Distinctions G = Goodman	M: Upflow/ Horizontal D: Dedicated Downflow C: Downflow/ Horizontal H: Hi Air Flow	S: Single-Stage/ Multi-Speed V:Two-Stage/ Variable-Speed	8: 80% 9: 90%	045 070 090 115 140	3:1,200 4:1,600 5:2,000	A:14" B:17.5" C:21" D:24.5"	N:Natural Gas X:Low NOx	A: Initial Revision B: First Revision C: Second Revision

Table G.3 Armstrong Model Number Description[3]

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	Revision
G=Gas Furnace	1N = Single Stage Heat, Non-Direct Vent 1D = Single Stage Heat, Direct Vent 2D = Two Stage Heat, Direct Vent	80 AFUE 93 AFUE 95 AFUE	A Series B Series	H = Horizontal U = Upflow T = Upflow/ Horizontal R = Downflow/ Horixontal	50 75 100 125 150	D = Direct Drive	12=1200 14=1400 16=1600 20=2000	A = 13-1/2 B = 17 C = 20-1/2	L = Low NOx Model	1A

Table G.4 Carrier Model Number Description[4]

58DLA	045	100	08
Furnace Series Configuration/Type	Input Capacity (kBtu/h)	Series Number	Nominal Cooling Size (Airflow) (400 CFM per 12,000 btu/h)
58DLA = Deluxe 4-Way Multipoise 58DLX = Low NOx version 58CVA = Variable Speed 4-Way Multipoise 58CVX = Low NOx version 58CTA = Two-Stage 4-Way Multipoise 58CTX = Low NOx version	045 = 44,000 070 = 66,000 090 = 88,000 110 = 110,000 135 = 132,000 155 = 154,000	100 Series	08 = 800 CFM 12 = 1200 CFM 14 = 1400 CFM 16 = 1600 CFM 20 = 2000 CFM 22 = 2200 CFM

Table G.5 Ducane Model Number Description[5]

MGPA	075	B	4	B
Furnace Family	Input Capacity (kBtu/h)	Series	Nominal Cooling Capacity (tons)	Revision
MGPA = Fits-All 80 AFUE FPBB = Horizontal 80 AFUE DPGB = Downflow 80 AFUE CMPB = Fits-All 92 AFUE (Downflow) CMPU = Fits-All 92 AFUE (Upflow) CMPV = Fits-All 92 AFUE variable speed	050 075 100 125	A B C U	3 4 5	B[6]

Table G.6 ECR International (Olsen) Model Number Description[6]

GTM	50
Furnace Family	Input Capacity (kBtu/h)
GTM = Med Efficiency Gas Furnace (80% AFUE) GTH = High Efficiency Gas Furnace (95% AFUE)	50 70 85 100

Table G.7 Goodman Model Number Description[7]

GMNT	040	3
Unit Type	Input Capacity (Btu/h)	Nominal Cooling Capacity (tons)
GMNT = Multi-position gas furnace	040 = 40,000 Btu/h 060 = 60,000 Btu/h 080 = 80,000 Btu/h 100 = 100,000 Btu/h 120 = 120,000 Btu/h	3 = 3 tons 4 = 4 tons 5 = 5 tons

Table G.8 ICP Model Number Description[8]

N	9	MP	2	075	F	12	A	#
Brand Identifier	Model Identifier	Installation Configuration	Major Design Feature	Heating Input (btu/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 = Uplfow/ 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	050 075 080 100 125	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 G.9 Lennox Model Number Description[9]

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 G.10 Nordyne Model Number Description[10]

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

Table G.11 Rheem Non-Condensing Model Number Description[11]

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 = Criterion II Plus 2 N = Classic Series L = Criterion 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 G.12 Rheem Condensing Model Number Description[12]

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 G.13 Texas Furnace Model Number Description[13]

ABA	040	NH	3	R
Furnace Family	Heating Input (kbtu/h)	Series	Nominal Cooling Capacity (tons)	Version
ABA = 80 Plus CSA = 90 Plus (Downflow) VSA = 90 Plus (Upflow)	040 060 080 100 120 140	NH	2 3 4 5 6	R = Standard RX = Low Nox RH = High Altitude

Table G.14 Thermo-Pride Furnace Model Number Description[14]

MHA	50	N
Furnace Family	Heating Input (kbtu/h)	Furnace Fuel Type
MHA1 = Comfort 80+% Mid-Efficiency Gas Fired Furnace MHA = Comfort 80+% Mid-Efficiency Gas Fired Furnace CHX1 or CDX1 = Premiere Series Two-Stage Gas Fired Furnace CHB1 or CDB1 = 90+% High-Efficiency Gas Fired Furnace	50 75 100 125	N = Natural Gas P = Propane

Table G.15 Trane/American Standard Model Number Description[15]

T	U	Y	080	R	9	V3	V	0
Brand Identifier	Furnace Configuration	Type	Heating Input (Kbtu/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	040 060 080 100 120 140	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	0

Table G.16 York Furnace Model Number Description[16]

P4	HU	A	12	N	032	01
Series	Furnace Configuration	Cabinet Size Width	Design Series		Output Capacity (kbtu/h)	Revision
P4	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	N L = Low NOx	032 048 064 080 100 115 130	01 = first revision 02 = second revision

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.

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