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Refrigeration, Air Conditioning, and Warm Air Heating Equipment - 1997

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Information about the scope of the survey, methodology, explanation of terms and historical notes for this survey may be found in the introduction of the 1996 Manufacturing Profiles, issued July 1998.

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Table 1. Summary of Shipments of Refrigeration, Air-Conditioning, and Warm Air Heating Equipment: 1997 and 1996

[Value of thousands of dollars]

Product code	Product description	1997		1996
35851 --	Heat transfer equipment.....	4,280,235	r/	4,267,113
35853 pt.	Commercial refrigeration equipment.....	235,357		219,586
35855 --	Condensing units, refrigeration (complete).....	292,065		314,882
35856 --	Room air-conditioners and dehumidifiers.....	1,020,171		1,495,609
35857 --	Motor vehicle mechanical air-conditioning systems 1/.....	2,208,011		1,818,533
3585A --	Compressors and compressor units.....	3,091,592	r/	3,584,521
3585B --	Automotive air-conditioning compressors 1/.....	1,652,395		1,491,573
3585C --	Nonelectric warm air furnaces and dehumidifiers 1/.....	1,562,442		1,678,999
3585E --	Unitary air conditioners.....	4,625,239	r/	4,670,915
3585F --	Air source heat pumps 1/.....	1,045,880		1,114,276
3585G --	Ground and ground water source heat pumps 2/.....	(D)		(NA)

D Withheld to avoid disclosing data for individual companies. NA Not available.
 pt. Partial. r/Revised by 5 percent or more from previously published data.

1/Data for this product is collected separately in 1997.

2/New product is introduced in 1997.

Table 2. Quantity and Value of Shipments of Refrigeration, Air-Conditioning and Warm Air Heating Equipment: 1997 and 1996

[Quantity in number of units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1997		1996	
			Quantity	Value	Quantity	Value
35851 --	Heat transfer equipment (except room and unitary air-conditioners).....	123	(X)	4,280,235	(X) r/	4,267,113
35851 01	Packaged terminal air-conditioners 1/.....	8		167,761		151,089
35851 03	Package terminal heat pumps.....	9		130,736		112,549
	Evaporative condensers.....	(X)		2,234		2,306
35851 04	100 tons and under.....	7		496		510
35851 07	Over 100 tons.....	7		1,738		1,796
	Room fan-coil air conditioning units.....	(X)		278,157		263,404
35851 08	Vertical stack.....	5		13,962		18,319
35851 09	Vertical.....	10		127,203		120,021
35851 10	Horizontal.....	10		136,992		125,064
35851 11	Room air induction units.....	3	(D)	(D)	(D)	(D)
	Central station air-handling units (motor-driven fan type)	(X)		357,388		340,865
35851 13	Draw through.....	22		332,001		317,418
35851 15	Blow through.....	10		9,114		8,451
35851 17	Heating and ventilating.....	13		16,273		14,996
	r/					28,405
	Coolers (refrigeration):					
	Ceiling, wall-mounted, and floor-mounted unit coolers	(X)		208,816		207,797
35851 16	4,000 btuh and below.....	10		59,015		59,611
35851 21	4,001 to 6,000 btuh.....	8		10,509		11,517
35851 22	6,001 to 8,000 btuh.....	7		20,665		20,070
35851 23	8,001 to 12,000 btuh.....	8		48,084	a/	47,043
35851 24	12,001 to 18,000 btuh.....	10		38,898		36,903
35851 25	Over 18,000 btuh.....	15		31,645		32,653
	Air cooled refrigerant condensers (remote type)	(X)		25,872		26,603
35851 30	Under 30 tons.....	13	b/	18,450	b/	20,502
35851 32	30 to 50 tons.....	11		2,830		2,019
35851 34	Over 50 tons.....	11		4,592		4,082
	r/					7,562
	r/					32,767
	Miscellaneous heat transfer equipment:					
	Shell-and-tube, shell-and-coil, shell-and-u-tube, tube-in-tube	(X)	(X)	52,402		(X)
35851 35	Condensers.....	9	(X)	26,792		(X) r/
35851 36	Liquid coolers.....	11	(X)	25,610		(X) r/
35851 37	Liquid-suction heat exchangers and refrigerant liquid receivers.....	6	(X)	(D)		(X) (D)
	Central system finned coils (air-conditioning and refrigeration type).....	(X)	(X)	81,379		(X)
35851 38	Standard steam and steam distributing tube...	14	(X)	18,744		(X)
35851 39	Standard water cooling and/or heating and cleanable tube water.....	21	(X)	57,085		(X)
35851 40	Volatile refrigerant cooling.....	12	(X)	5,550	a/	(X)
	Coil sales by original equipment manufacturers intended for resale or assembly into equipment by other manufacturer (all types).....	(X)	(X)	431,543		(X)
35851 41	Copper and aluminum.....	18	(X)	286,930		(X)
35851 43	Aluminum (only).....	9	(X)	65,620		(X)
35851 46	Other, including steel,copper.....	11	(X)	78,993		(X)
35851 45	Factory-assembled, refrigeration type, finned gravity coils including wetted-surfaced dehumidifiers.....	5	(X)	13,131		(X)
	r/					15,052
	Centrifugal liquid chilling packages, hermetic and open types.....	(X)		9,579		9,963
	r/					821,440

Table 2. Quantity and Value of Shipments of Refrigeration, Air-Conditioning and Warm Air Heating Equipment: 1997 and 1996

[Quantity in number of units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1997		1996			
			Quantity	Value	Quantity	Value		
35851 51	200 hp and under.....	9	1,732	49,358	r/	1,678	r/	52,384
35851 54	201 to 300 hp.....	6	1,441	84,161		1,557		88,645
35851 56	301 to 400 hp.....	5	1,138	79,650		1,299		88,471
35851 58	Over 400 hp.....	5	5,268	524,083		5,429		591,940
	Ice making machines.....	(X)	213,473	320,291		215,817		309,153
	Self-contained ice-cube makers.....	(X)	126,650	141,954		127,942		133,851
35851 62	Automatic, under 200 lbs	6	78,301	59,181		84,926		63,164
35851 64	Automatic, 201 lbs and over.....	6	48,349	82,773		43,016		70,687
	Self-contained flake or chip machines.....	(X)	8,309	20,894		8,463		21,986
35851 68	300 lbs and under.....	4	b/ 3,085	b/ 3,876	c/	2,880	b/	3,662
35851 70	Over 300 lbs.....	11	a/ 5,224	a/ 17,018		5,583		18,324
35851 71	Not self-contained.....	8	48,295	83,138		50,623		88,902
35851 75	Combination ice makers and ice/drink dispensers	6	30,219	74,305		28,789		64,414
35851 74	Absorption refrigeration and dehydration systems.....	7	(D)	(D)		(D)		(D)
35851 78	Mechanical refrigeration systems used on all types of vehicles	8	(D)	(D)		(D)		(D)
	Reciprocating air and reciprocating water cooled, air cooled screw, air cooled scroll, and water cooled scroll machines:.....	(X)	24,173	454,982		23,776		443,480
35851 91	20 hp and under.....	25	8,740	a/ 53,146	r/	8,533		53,102
35851 93	21 to 49 hp.....	20	4,501	47,651	r/	4,605	r/	47,221
35851 95	50 to 75 hp.....	17	3,431	69,810	r/	3,435	r/	68,022
35851 97	Over 75 hp.....	18	7,501	284,375		7,203		275,135
35851 92	Factory-fabricated water cooling towers.....	11	8,713	159,784		9,158		162,184
35853 43	Commercial refrigeration equipment, mechanical drinking water coolers.....	5	a/ 1,048,305	235,357		1,004,335		219,586
35855 --	Condensing units, refrigeration (complete).....	25	464,193	292,065		512,135		314,882
	Air-cooled hermetic-type.....	(X)	445,305	194,319		492,284		209,597
35855 23	1 hp and under.....	13	353,972	77,086		400,585		94,734
35855 25	1.5 hp.....	12	19,010	13,139	r/	19,870	r/	14,349
35855 28	2 hp and 2.5 hp.....	13	23,881	19,662	r/	26,340	r/	21,538
35855 30	3 hp.....	14	21,170	25,626		20,704	r/	25,185
35855 32	Over 3 hp but under 15 hp.....	14	27,272	a/ 58,806	a/r/	24,785	r/	53,791
35855 44	Water-cooled hermetic-type, under 15 hp.....	3	(D)	(D)		(D)		(D)
	Water or air-cooled hermetic-type.....	(X)	4,007	46,994		4,794		48,768
35855 61	15 hp.....	9	2,099	29,985	r/	1,943	r/	27,367
35855 62	20 hp.....	7	683	3,676	r/	776	r/	4,049
35855 63	25 hp.....	7	453	2,923	r/	605	r/	3,762
35855 64	30 hp	7	346	3,310	a/r/	522	a/r/	5,200
35855 70	40 hp.....	5	426	7,100		948	b/	8,390
35855 80	Water or air-cooled open-type.(all sizes).....	7	(D)	(D)		(D)		(D)
35856 --	Room air-conditioners and dehumidifiers.....	16	(X)	1,020,171		(X)		1,495,609
35856 11	Electrically operated dehumidifiers, mechanically refrigerated self-contained.....	10	(X) b/	131,312		(X) a/r/		163,438
	Room air-conditioners.....	(X)	2,838,381	888,859		4,453,929		1,332,171
35856 31	5,999 btuh and under.....	8	b/ 649,840	b/ 129,527	r/	985,695	r/	193,864
35856 34	6,000 to 6,999 btuh.....	6	b/ 98,858	b/ 23,859		288,029		67,870
35856 38	7,000 to 7,999 btuh.....	7	304,344	a/ 77,048		544,174		130,870
35856 42	8,000 to 8,999 btuh.....	6	b/ 191,233	b/ 54,586	r/	276,553	r/	78,072
35856 46	9,000 to 9,999 btuh.....	7	61,642	20,589		96,600		32,753
35856 52	10,000 to 10,999 btuh.....	8	a/ 359,399	a/ 110,192		577,201		167,151

Table 2. Quantity and Value of Shipments of Refrigeration, Air-Conditioning and Warm Air Heating Equipment: 1997 and 1996

[Quantity in number of units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1997			1996		
			Quantity	Value		Quantity	Value	
35856 56	11,000 to 12,999 btuh.....	9 b/	504,149 b/	170,646 r/		702,436 r/	230,906	
35856 61	13,000 to 14,999 btuh.....	7 b/	69,985 b/	29,572 r/		72,656 r/	30,462	
35856 63	15,000 to 16,999 btuh.....	7	99,715	41,153 r/		101,365 r/	39,915	
35856 65	17,000 to 19,999 btuh.....	7 b/	302,935 b/	114,954		489,019	195,056	
35856 67	20,000 to 22,999 btuh.....	5 b/	22,643 b/	11,523		46,530	18,926	
35856 68	23,000 to 25,999 btuh.....	8 b/	143,716 b/	73,122		224,297	108,024	
35856 69	26,000 btuh and over.....	8 b/	29,922 a/	32,088		49,374	38,302	
35857--	Motor vehicle mechanical air-conditioning systems.....	(X)	(X)	2,208,011		(X)	1,818,533	
35857 05	Air-conditioning units and systems for passenger automobiles 2/.....	19	10,450,959	1,544,552		9,280,369	1,240,312	
35857 07	Air-conditioning units and systems for buses.....	14	(D)	(D)		(D)	(D)	
35857 19	Other motor vehicle mechanical air-conditioning systems	5	(D)	(D)		(D)	(D)	
3585A --	Compressors and compressor units 3/ 4/.....	31	(X)	3,091,592		(X)	3,584,521	
	All refrigerants except ammonia.....	(X)	26,163,888	2,991,412		26,870,318	3,089,470	
	Hermetic-type motor compressors.....	(X)	23,330,788	2,602,491		24,063,692	2,702,973	
3585A 11	Under 3 hp.....	11	17,898,968	1,306,660		18,521,768	1,361,349	
3585A 23	3 to 10 hp.....	12	5,263,330	975,437		5,386,567	974,241	
3585A 30	15 hp.....	11	29,072	33,864		27,735	32,627	
3585A 32	20 hp.....	12	24,034	36,162		22,694	34,557	
3585A 34	25 hp.....	11	17,731	29,399		15,770	26,093	
3585A 36	30 hp.....	12	26,720	31,088		22,122	29,499	
3585A 39	40 hp and 50 hp.....	11	37,745	64,880		34,033	58,707	
3585A 42	60 hp.....	9	33,188	20,183		24,780	17,803	
3585A 46	75 hp.....	10	(D)	(D)		(D)	(D)	
3585A 49	100 hp and over	7	(D)	(D)		(D)	(D)	
3585A 52	Open-type compressors (with or without motor - all sizes)	13	(D)	(D)		(D)	(D)	
3585A 54	Screw type.....	4	(D)	(D)		(D)	(D)	
3585A 58	Ammonia refrigerants (all types).....	6 b/	2,823 a/	100,180		3,066	108,554	
3585B 53	Automotive air-conditioning compressors (open-type, with or without motor)	7	15,032,103	1,652,395		14,176,731	1,491,573	
3585C pt	Nonelectric warm air furnaces and dehumidifiers.....	(X)	(X)	1,562,442		(X)	1,678,999	
	Oil, forced air:							
3585C 04	150,000 btu bonnet output and under.....	17 a/	154,012 b/	106,752		167,309	114,027	
3585C 13	150,001 btu bonnet output and over.....	17 a/	7,060 b/	10,355		7,080	9,425	
	Gas, forced air:							
3585C 07	150,000 btu bonnet output and under.....	18	2,747,367	1,200,128 r/		3,189,556 r/	1,314,405	
3585C 08	150,001 - 400,000 btu bonnet output.....	17 c/	38,110 c/	10,072		42,806	10,844	
3585C 09	Over 400,000 btu bonnet output.....	11	398,634	165,486		374,118	158,700	
3585C 79	All other nonelectric warm air furnaces.....	6	1,336	2,072		601	1,087	
3585C 20	Humidifiers (attachments to warm air furnaces) all types, including central systems and self-contained (except portable humidifiers)	20	605,676	67,577		626,809	70,511	
3585E --	Unitary air conditioners.....	54	(X)	4,625,239		(X)	4,670,915	

Table 2. Quantity and Value of Shipments of Refrigeration, Air-Conditioning and Warm Air Heating Equipment: 1997 and 1996

[Quantity in number of units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1997		1996	
			Quantity	Value	Quantity	Value
3585E 10	Recreational vehicle air-conditioners.....	6	(D)	(D)	(D)	(D)
	Single package air-conditioners, with or without evaporator fans, including refrigeration chassis and remote-condenser type.....	(X)	285,878	609,876	295,064	604,492
	Horizontal.....	(X)	248,983	526,246	258,772	521,704
3585E 31	Under 27,000 btuh.....	18	19,964 b/	21,886	20,592	20,711
3585E 32	27,000 to 32,999 btuh.....	17	38,749 a/	43,707 r/	38,685	40,493
3585E 33	33,000 to 53,999 btuh.....	19 a/	96,941 a/	87,649 r/	109,171 r/	96,108
3585E 34	54,000 to 64,999 btuh.....	18	37,024	49,477	35,939	47,206
3585E 35	65,000 to 96,999 btuh.....	16	17,584 a/	43,777	17,050	41,939
3585E 36	97,000 to 134,999 btuh.....	14	15,136	50,470	15,151	49,674
3585E 37	135,000 to 184,999 btuh.....	11	9,557	40,782	9,350	42,086
3585E 38	185,000 to 249,999 btuh.....	12	5,358	37,598	5,142 r/	35,608
3585E 39	250,000 to 319,999 btuh.....	8	4,499	35,724	3,890	34,607
3585E 40	320,000 to 379,999 btuh.....	9	1,017	13,792	821 r/	13,575
3585E 41	380,000 btuh and over.....	9	3,154	101,384	2,981 r/	99,697
	Other than horizontal.....	(X)	36,895	83,630	36,292	82,788
3585E 4A	Under 54,000 btuh	6	(D)	(D)	(D)	(D)
3585E 44	54,000 to 64,999 btuh.....	5	4,313	10,692 r/	5,806 r/	15,009
3585E 45	65,000 to 96,999 btuh.....	4 a/	316 a/	901 a/	657 a/	2,273
3585E 46	97,000 to 134,999 btuh.....	4	393	1,456	723	3,117
3585E 47	135,000 to 184,999 btuh.....	4	372	2,079	661	4,209
3585E 4T	185,000 btuh and over.....	5	(D)	(D)	(D)	(D)
	Year- round air- conditioners, single package and remote-condenser type (except heat pumps)	(X)	580,153	1,294,045	573,115	1,192,159
3585E 50	Under 33,000 btuh.....	19	132,188	122,659	137,466	118,989
3585E 51	33,000 to 38,999 btuh.....	19	107,415	112,124	111,458	115,313
3585E 52	39,000 to 43,999 btuh.....	13	33,075	35,099	36,586	38,570
3585E 53	44,000 to 53,999 btuh.....	15	60,877	79,736	57,914	74,210
3585E 54	54,000 to 64,999 btuh.....	16	90,902	140,171	87,942	132,665
3585E 55	65,000 to 134,999 btuh.....	13	100,990	288,391	91,963	260,522
3585E 56	135,000 to 184,999 btuh.....	12	28,658	147,070	26,532	130,761
3585E 57	185,000 to 249,999 btuh.....	13	12,925	104,432 r/	12,041 r/	93,716
3585E 58	250,000 to 319,999 btuh.....	10	6,203	59,265	5,778	53,652
3585E 59	320,000 to 379,999 btuh.....	10	2,184	32,857	1,541	22,101
3585E 60	380,000 to 539,999 btuh.....	8	1,762	33,700	1,523	28,380
3585E 61	540,000 to 639,999 btuh.....	9	1,128	39,969 r/	866	35,864
3585E 62	640,000 btuh and over.....	8	1,846	98,572	1,505	87,416
3585E 71	Water source heat pumps (except room air-conditioners)	10	(D)	(D)	(D)	(D)
	Split system air- conditioning condensing units	(X)	3,832,640	1,880,657	4,261,815	2,035,244
3585E 72	Under 22,000 btuh.....	13	286,820	92,774	312,325	99,258
3585E 73	22,000 to 26,999 btuh.....	15 a/	821,773	276,649	947,829	311,905
3585E 74	27,000 to 32,999 btuh.....	15	762,966	307,057	914,015	367,264
3585E 75	33,000 to 38,999 btuh.....	14	784,115	356,287 r/	878,602 r/	395,551
3585E 76	39,000 to 43,999 btuh.....	13	376,824	202,442	412,814	222,018
3585E 77	44,000 to 53,999 btuh.....	14	400,569	236,575 r/	407,579	242,799
3585E 78	54,000 to 64,999 btuh.....	12	333,385	229,577	328,455	228,003
3585E 79	65,000 to 96,999 btuh.....	7	25,346	32,949	23,284	30,730
3585E 80	97,000 to 134,999 btuh.....	8	18,492	35,026	16,393	31,217
3585E 81	135,000 to 184,999 btuh.....	7	10,099	29,839	8,982	26,860
3585E 82	185,000 to 249,999 btuh.....	7	5,476	22,796	4,775	20,671

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[Quantity in number of units. Value in thousands of dollars]

Product code	Product description	No. of cos.	1997		1996	
			Quantity	Value	Quantity	Value
3585E 83	250,000 to 319,999 btuh.....	3	1,672	9,244	1,762	9,758
3585E 84	320,000 to 379,999 btuh.....	4	1,882	11,898	1,848	12,034
3585E 85	380,000 to 539,999 btuh.....	5	1,476	13,155	1,408	12,461
3585E 86	540,000 to 639,999 btuh	4	670	7,313	668	7,237
3585E 87	640,000 btuh and over.....	4	1,075	17,076	1,076	17,478
	Split system air-conditioning coils.....	(X)	2,836,870	579,037	3,204,164	592,513
3585E 88	with blower.....	13	1,307,782	378,684	1,322,047	366,882
3585E 89	Without blower.....	14 a/	1,529,088 a/	200,353 r/	1,882,117 r/	225,631
3585F --	Air source heat pumps (except room air-conditioners)	(X)	1,330,598	1,045,880	1,423,503	1,114,276
	Single package:					
3585F 63	Under 27,000 btuh.....	16	26,557	21,918	30,571	25,756
3585F 64	27,000 to 41,999 btuh.....	16	89,980	90,766	98,634	100,356
3585F 65	42,000 to 64,999 btuh.....	15	71,187	89,908	64,981	84,428
3585F 66	65,000 btuh and over.....	8	12,456	43,502	8,982	35,067
	Split system:					
3585F 67	Under 27,000 btuh.....	16	364,475	185,003 r/	376,042 r/	193,959
3585F 68	27,000 to 41,999 btuh.....	15	506,301	354,881 r/	564,405 r/	397,002
3585F 69	42,000 to 64,999 btuh.....	13	245,483	228,794 r/	265,378 r/	246,872
3585F 70	65,000 btuh and over.....	8	14,159	31,108	14,510	30,836
3585G --	Ground and ground water source heat pumps 5/	(X)	(D)	(D)	(NA)	(NA)
	Single and split systems					
3585G 10	Under 27,000 btuh.....	1	(D)	(D)	(NA)	(NA)
3585G 20	27,000-41,999 btuh.....	1	(D)	(D)	(NA)	(NA)
3585G 30	42,000-64,999 btuh.....	1	(D)	(D)	(NA)	(NA)
3585G 40	65,000 btuh and over.....	1	(D)	(D)	(NA)	(NA)

BTUH (British Thermal Units - per hour). D Withheld to avoid disclosing data for individual companies. NA Not applicable Pt Partial. r/Revised by 5 percent or more from previously published data. X Not applicable.

1/Defined as factory selected combinations of heating and cooling components or assemblies intended to serve an individual room and comprising: (1) heating assembly available with element for use with hot water, steam, and electricity; means for forced heated air circulation and distribution; integral or remote temperature controls; (2) slide-in cooling section with complete refrigerant cycle; (3) room cabinet; (4) provision for outdoor air intake and discharge and accessories as required for mounting in a building wall; (5) provisions for air filtration and ventilation; (6) permanent individual branch circuit wiring with a suitable line cord or terminating at a junction box within the room cabinet; and (7) provision for free conditioned air distribution, or when forced circulation is employed for minimal duct work having a total external static resistance not exceeding 1/10 inch of water.

2/Data exclude systems assembled from purchased components and installed at passenger automobile assembly lines. The values are understated for some systems because of the exclusion of compressors.

3/Represents only those compressors and copressor units produced and shipped separately, including interplant transfers.

4/Includes units shipped for household refrigerators.

5/New product in 1997; therefore no previous year data available.

Note: The percent of estimation for each item is indicated as follows: a/15 to 25 percent of this item is estimated. b/26 to 50 percent of this item is estimated. c/Over 50 percent of this item is estimated.

Table 3. Quantity of Assembled Compressor Bodies: 1997 and 1996
 [Quantity of number units]

Product description	Number of companies	1997	1996
Compressor bodies 1/ 2/	(X)	34,908,213	34,657,025
All refrigerants (except ammonia).....	(X)	34,907,457	34,656,269
Other than automotive air-conditioning.....	(X)	23,641,952	23,765,426
1/4 hp.and under.....	5	7,009,406	5,817,483
1/3 hp and 1/2 hp.....	6	(D)	(D)
3/4 hp.and 1 hp.....	5	(D)	(D)
1 1/2 hp.....	6	871,087	1,068,176
2 hp.....	6	5,217,022	5,202,311
3 hp.....	11	2,809,080	3,069,960
4 hp.....	5	931,805	910,049
5 hp.....	7	1,607,735	1,537,368
7 1/2 hp.....	10	248,211	297,368
10 hp.....	12	327,148	315,073
15 hp.....	10	129,716	94,072
20 hp.....	9	30,331	28,753
25 hp.....	10	24,589	22,179
30 hp.....	11	(D)	(D)
40 hp.....	11	44,422	43,326
50 hp.....	8	(D)	(D)
60 hp.....	9	(D)	(D)
75 hp.....	9	4,789	2,490
100 hp. and over.....	7	13,373	11,237
Automotive air-conditioning, including passenger automobiles, trucks, buses, agriculture and construction equipment.....	5	(D)	(D)
Ammonia refrigerants.....	3	(D)	(D)

D Withheld to avoid disclosing data for individual companies. X Not applicable.

1/Includes units for household refrigerators.

2/Represents the total number of compressor bodies assembled, whether shipped separately or incorporated into a condensing package or unitary end-use product, such as single package air-conditioners freezers, and refrigerators (manufactured and remanufactured units).

Table 4. Comparison of Values of Shipments of Refrigeration, Air-Conditioning, and Warm Air Heating Equipment as Reported in the MA35M, the 1996 Annual Survey of Manufactures
[Value in millions of dollars]

Product code	Product description	1996	
		MA35M	Annual survey of manufactures 1/
3585--	Refrigeration and heating equipment.....	(X)	25,512.3
35851	Heat transfer equipment.....	4,267.1	6,281.7
35853	Commercial refrigerators and related equipment 2/.....	(NA)	2,232.3
35855	Refrigeration condensing units.....	314.9	278.1
35856	Room air-conditioners and dehumidifiers.....	1,495.6	1,366.8
35857	Motor vehicle mechanical air-conditioning systems 3/.....	1,818.5	(NA)
35859	Refrigeration and air-conditioning equipment, n.e.c. 2/.....	(NA)	945.1
3585A	Compressors and compressor units, all refrigerants.....	3,584.5	4,869.4
3585B	Automotive air-conditioning compressors 4/.....	1,491.6	(NA)
3585C pt.	Nonelectric warm air furnaces and humidifiers.....	1,679.0	1,906.9
3585D	Parts for refrigeration and heating equipment 2/.....	(NA)	2,075.3
3585E	Unitary air-conditioners.....	4,670.9	5,211.1
3585F	Air source heat pumps 5/.....	1,114.3	(NA)
3585G	Ground and ground water source heat pumps 6/.....	(NA)	(NA)

NA Not available. n.e.c. Not elsewhere classified. pt. Partial. X Not applicable.

1/Source: 1996 Annual Survey of Manufactures, (Value of Product Shipments), M96(AS)-2.

2/Data for this product class is collected only in the Census of Manufactures and Annual Survey of Manufactures.

3/Data for this product is collected separately from 35851 in Current Industrial Report for 1997.

4/Data for this product is collected separately from 35854 in Current Industrial Report for 1997.

5/Data for this product is collected separately from 35852 in Current Industrial Report for 1997.

6/The data for this new product is collected for the first time in 1997.

Table 5. Shipments, Exports, Imports, and Apparent Consumption of Air-Conditioning and Refrigeration Equipment: 1997 and 1996

[Value in thousands of dollars]

Exports of domestic merchandise 1/

Product code 1/	Product description	Manufactures' shipments (value f.o.b. plant)	Value at port 2/	Estimated producers' value 3/	Imports for consumption 4/ 5/
1997					
35851	Heat transfer equipment, excluding room and unitary air-conditioners and dehumidifiers.....	4,280,235	421,233	316,009	70,754
35853 43	Commercial refrigeration equipment, mechanical drinking water coolers.....	235,357	29,980	22,491	4,910
35855	Condensing units, all refrigerants.....	292,065	31,338	23,510	29,285
35856	Room air-conditioners and dehumidifiers.....	1,020,171	117,444	88,106	404,098
35857	Motor vehicle mechanical air-conditioning systems 6/.....	2,208,011	(NA)	(NA)	(NA)
3585A	Compressors and compressor units, all refrigerants.....	3,091,592	1,102,224	826,888	611,160
3585B	Automotive air-conditioning compressors 7/.....	1,652,395	(NA)	(NA)	(NA)
3585C pt.	Nonelectric warm air furnaces and humidifiers.....	1,562,442	(NA)	(NA)	(NA)
3585E	Unitary air-conditioners.....	4,625,239	348,456	261,412	78,499
3585F	Air source heat pumps 8/.....	1,045,880	(NA)	(NA)	(NA)
3585G	Ground and ground water source heat pumps 9/.....	(D)	(NA)	(NA)	(NA)
1996					
35851	Heat transfer equipment, (excluding room and unitary air-conditioners and dehumidifiers).....	4,267,113	521,941	391,560	47,132
35853 43	Commercial refrigeration equipment, mechanical drinking water coolers.....	219,586	27,228	20,426	2,929
35855	Condensing units, all refrigerants.....	314,882	24,808	18,611	20,298
35856	Room air-conditioners and dehumidifiers.....	1,495,609	139,208	104,434	419,294
35857	Motor vehicle mechanical air-conditioning systems 6/.....	(NA)	(NA)	(NA)	(NA)
3585A	Compressors and compressor units, all refrigerants.....	3,584,521	919,664	689,932	688,000
3585B	Automotive air-conditioning compressors 7/.....	(NA)	(NA)	(NA)	(NA)
3585C pt.	Nonelectric warm air furnaces and humidifiers.....	1,678,999	(NA)	(NA)	(NA)
3585E	Unitary air-conditioners.....	4,670,915	312,192	234,206	69,162
3585F	Air source heat pumps 8/.....	114,276	(NA)	(NA)	(NA)

Continued

Table 5. Shipments, Exports, Imports, and Apparent Consumption of Air-Conditioning and Refrigeration Equipment: 1997 and 1996

[Value in thousands of dollars]

Exports of domestic merchandise 1/

Product code 1/	Product description	Manufactures' shipments (value f.o.b. plant)	Value at port 2/	Estimated producers' value 3/	Imports for consumption 4/ 5/
3585G	Ground and ground water source heat pumps 9/.....	(NA)	(NA)	(NA)	(NA)

NA Not available. pt partial.

1/Source: Bureau of the census report EM 545,U.S. Exports (see Table 6 for a comparison of SIC-Based codes and import and export numbers).

2/This dollar value represents the c.i.f. (cost, insurance, and freight) value at the port of export.

3/These values were derived by use of adjustment factors to exclude freight, insurance, and other charges incurred in moving goods to the port of export. This adjustment is made to convert the values to an approximation of the producers' value of export goods. Current adjustment factors are based on data for 1996 which are published (in Exports from Manufacturing Establishments), AR89-1, appendix b. The adjustment factor for this report is 0.7502.

4/Source: Bureau of the Census report IM 145, (U.S. Imports for Consumption). These figures include both import value and duty value.

5/Represents the C.I.F. (cost, insurance, and freight) value at the first port of entry in the United States plus U.S. import duties.

6/The data for this product is collected separately from 35851 in 1997.

7/The data for this product is collected separately from 35854 in 1997.

8/The data for this product is collected separately from 35852 in 1997.

9/The data for this new product just starts to be collected in 1997.

Table 6. Comparison of Standard Industrial Classification-Based Product Codes with Schedule B Export Numbers, and HTSUSA Import Numbers: 1997

Product code	Product description	Export number 1/	Import number 2/
35851	Heat transfer equipment.....	8415.82.0030	8415.82.0030
		8415.82.0035	8415.82.0035
		8415.83.0040	8415.83.0040
		8418.69.0010	8418.69.0010
		8418.69.0015	8418.69.0015
		8418.69.0045	8418.69.0045
		8418.69.0050	8418.69.0050
		8418.69.0055	8418.69.0055
35853 43	Mechanical drinking water coolers.....	8418.69.0020	8418.69.0020
		8418.99.0005	8418.99.8005
35855	Refrigeration condensing units.....	8418.99.0010	8418.99.8010
		8418.99.0015	8418.99.8015
		8418.99.0020	8418.99.8020
		8418.99.0025	8418.99.8025
35856	Room air-conditioners and dehumidifiers.....	8415.10.0040	8415.10.0040
		8415.10.0060	8415.10.0060
		8415.10.0080	8415.10.0080
		8415.82.0050	8415.82.0055
35857	Motor vehicle mechanical air-conditioning systems 3/.....	(NA)	(NA)
		8414.30.4000	8414.30.4000
		8414.30.8010	8414.30.8010
		8414.30.8020	8414.30.8020
		8414.30.8030	8414.30.8030
		8414.30.8050	8414.30.8050
		8414.30.8060	8414.30.8060
		8414.30.8070	8414.30.8070
3585A	Compressors and compressor units, all refrigerants.....	8414.30.8080	8414.30.8080
		8414.30.8090	8414.30.8090
		(NA)	(NA)
		(NA)	(NA)
3585B	Automotive air-conditioning compressors 3/.....	(NA)	(NA)
		8415.81.0010	8415.81.0010
		8415.81.0020	8415.81.0020
		8415.81.0030	8415.81.0030
		8415.82.0005	8415.82.0005
		8415.82.0010	8415.82.0010
		8415.82.0015	8415.82.0015
		8415.82.0020	8415.82.0020
3585E	Unitary air-conditioners (except room).....	8415.82.0025	8415.82.0025
		8415.83.0050	8415.83.0050
		8415.83.0060	8415.83.0060
		(NA)	(NA)
3585F	Air source heat pumps 3/.....	(NA)	(NA)
3585G	Ground and ground water source heat pumps 3/.....	(NA)	(NA)

NA Not available.

1/Source: Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States, 1997.

2/Source: Harmonized Tariff Schedule of the United States, 1997.

3/Import/Export classification not directly comparable.