



**Australian
Bureau of
Statistics**

**March 1990
Production of Household
Appliances and Electrical
Equipment, Australia**

Catalogue No. 8357.0

EMBARGOED UNTIL 11.30 A.M. 9 JULY 1990

**PRODUCTION OF HOUSEHOLD APPLIANCES
AND ELECTRICAL EQUIPMENT, AUSTRALIA
MARCH 1990**

IAN CASTLES
Australian Statistician

AUSTRALIAN BUREAU OF STATISTICS

CATALOGUE NO. 8357.0

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TABLE 1. CLOTHES WASHING AND DRYING MACHINES AND DISH WASHING MACHINES
(number)

Period	Household or laundry type clothes washing machines			Clothes drying machines (c) (775.12)	Dish washing machines—domestic (775.30)
	Original (775.11)	Seasonally adjusted (a)	Trend (b)		
1986-87	400,248	..	..		
1987-88	394,313	..	..		
1988-89	396,535	..	..		
1989—				Not available prior to July 1989	
January	11,792	24,452	32,522		
February	37,554	34,999	33,189		
March	36,050	34,373	34,012		
April	33,299	36,190	34,393		
May	38,479	36,447	33,898		
June	31,836	31,174	32,561		
July	30,810	29,885	30,736	36,721	3,787
August	33,239	28,550	28,991	20,133	4,584
September	29,166	27,130	27,862	10,363	1,123
October	27,984	26,034	r27,052	7,164	2,495
November	31,463	28,701	r26,531	6,471	2,868
December	24,654	27,390	r26,115	3,919	2,041
1990—					
January	12,166	24,356	r25,783	5,586	950
February	25,897	24,090	r25,632	15,733	2,042
March	27,607	24,519	25,702	19,990	2,600
1988-89 July to Mar.	292,921	..	..	n.a.	n.a.
1989-90 July to Mar.	242,986	..	..	126,080	22,490

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 9, Explanatory Notes. (c) Each of a dry linen capacity not exceeding 10 kg.

TABLE 2. REFRIGERATORS AND FREEZERS
(number)

Refrigerators-domestic						
Period	Twin door			Total		Freezers-domestic (upright and chest) (775.22)
	Single door (775.23)	Frost free (775.24)	Other (775.25)	Original	Seasonally adjusted (a)	
1986-87	105,089	70,360	113,887	289,336	..	107,204
1987-88	133,049	87,580	165,120	385,749	..	104,233
1988-89	120,190	102,331	157,108	379,629	..	108,731
1989—						
January	7,059	5,419	10,374	22,852	35,600	8,117
February	10,805	8,590	15,713	35,108	33,657	8,835
March	10,683	6,030	13,994	30,707	34,204	9,009
April	9,763	6,221	14,568	30,552	32,927	8,153
May	13,789	8,185	17,504	39,478	36,841	10,061
June	12,270	7,580	16,091	35,941	34,895	7,393
July	10,766	9,181	15,193	35,140	35,747	8,676
August	10,097	10,366	18,460	38,923	33,247	9,843
September	8,217	9,307	17,319	34,843	31,410	7,364
October	7,898	9,449	14,908	32,255	29,840	9,121
November	9,719	8,329	16,388	34,436	29,339	10,017
December	6,393	3,908	8,818	19,119	22,867	6,271
1990—						
January	8,527	2,952	6,002	17,481	25,734	7,644
February	10,107	5,520	10,696	26,323	25,219	10,005
March	n.p.	n.p.	11,318	22,764	24,724	7,345
1988-89 July to Mar.	84,368	80,345	108,945	273,658	..	83,124
1989-90 July to Mar.	n.p.	n.p.	119,102	261,284	..	76,286

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 9, Explanatory Notes.

TABLE 3. ELECTRIC KETTLES, SPACE HEATERS, FANS AND AIR CONDITIONERS
(number)

Period	Kettles (775.99)	Electric space heating and soil heating apparatus (b)	Electric fans (743.42,44)	Air conditioning machines(a)		
				Self contained (c)	Other	
					Domestic (741.52)	Other (741.54)
1986-87	422,084	603,350				
1987-88	623,903	580,318				
1988-89	605,473	595,176				
1989—					Not available prior to July 1989	
January	24,913	n.p.				
February	51,009	79,413				
March	54,702	97,349				
April	54,294	111,736				
May	47,228	98,939				
June	62,851	62,833				
July	43,095	23,532	63,666	n.p.	1,711	1,409
August	n.p.	20,270	89,676	n.p.	1,830	1,268
September	47,962	11,909	73,921	n.p.	2,297	1,276
October	55,231	8,533	84,836	n.p.	2,866	1,586
November	58,088	5,447	86,281	n.p.	3,082	1,183
December	51,825	4,919	60,092	n.p.	1,818	979
1990—						
January	25,096	20,033	32,192	n.p.	1,790	599
February	42,553	75,860	72,136	58	1,383	880
March	27,382	90,131	49,963	n.p.	1,240	791
1988-89 July to Mar.	441,100	n.p.	n.a.	n.a.		n.a.
1989-90 July to Mar.	n.p.	260,634	612,763	n.p.	18,017	9,971

(a) Comprises a motor driven fan and elements for changing the temperature and humidity. Excludes automotive types. (b) Excludes soil heating apparatus prior to July 1989. (c) Window or wall types.

TABLE 4. COLOUR TELEVISION SETS(a)
(number)

Period	Less than 38 cm (761.11)	38cm but less than 48 cm (761.12)	48cm but less than 53 cm (761.13)	53cm but less than 62 cm (761.14)	62cm but less than 70 cm (761.15)	70cm and over (761.16)	Total		
							Original	Seasonally Adjusted (b)	Trend (c)
1986-87	Not available separately prior to July 1988						210,590	..	..
1987-88							176,756	..	..
1988-89	—	n.p.	94,499	n.p.	55,235	n.p.	162,398	..	..
1989—									
January	—	n.p.	3,270	n.p.	524	n.p.	4,482	13,681	14,182
February	—	n.p.	7,266	n.p.	5,586	—	13,568	13,427	14,341
March	—	n.p.	10,868	—	n.p.	—	16,498	14,573	14,489
April	—	n.p.	8,307	n.p.	5,049	—	13,802	15,744	14,633
May	—	n.p.	7,883	n.p.	7,814	—	16,164	14,494	14,756
June	—	n.p.	7,933	n.p.	n.p.	—	14,689	13,841	14,823
July	—	—	8,113	1,986	4,115	—	14,214	14,795	14,768
August	—	n.p.	12,192	n.p.	4,603	—	19,041	16,194	14,488
September	—	n.p.	7,682	n.p.	6,375	—	14,279	12,787	14,046
October	—	328	8,010	202	6,917	—	15,457	13,754	13,512
November	—	n.p.	8,265	n.p.	5,437	n.p.	16,035	13,881	12,960
December	—	—	4,931	163	5,344	—	10,438	11,340	12,489
1990—									
January	—	—	n.p.	n.p.	2,286	n.p.	3,840	11,295	12,204
February	—	—	7,352	—	5,925	—	13,277	13,184	12,052
March	—	n.p.	6,896	n.p.	6,602	—	13,696	11,858	11,990
1988-89 July to Mar.	—	n.p.	70,376	n.p.	n.p.	n.p.	117,743	..	..
1989-90 July to Mar.	—	n.p.	n.p.	n.p.	47,604	n.p.	120,277	..	..

(a) Colour television sets were previously published using different size categories. See the June 1988 issue of this publication, for previous data. (b) See paragraph 5, Explanatory Notes. (c) See paragraph 6 to 9, Explanatory Notes.

TABLE 5. LAWN MOWERS
(number)

Period	Lawn mowers with engine (undercut rotary petrol type) 2 stroke or 4 stroke type		
	Original (721.33)	Seasonally adjusted(a)	Trend(b)
1986-87	276,501	..	..
1987-88	279,122	..	..
1988-89	298,286	..	..
1989—			
January	15,563	23,814	26,573
February	32,705	31,367	27,416
March	19,123	25,341	27,682
April	14,275	29,278	27,281
May	12,425	26,906	26,221
June	11,643	19,652	24,582
July	22,879	28,872	22,819
August	24,690	18,706	21,237
September	30,352	21,167	19,985
October	26,464	16,071	19,139
November	29,438	17,434	19,060
December	28,672	25,795	19,632
1990—			
January	11,617	17,261	20,777
February	19,061	18,231	n.y.a.
March	21,099	27,733	n.y.a.
1988-89 July to Mar.	259,943	..	..
1989-90 July to Mar.	214,272	..	..

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 9, Explanatory Notes.

TABLE 6. ELECTRIC AND TELEPHONE CABLE, WIRE AND STRIP

Period	Uninsulated	Insulated				Other (e.g. for communications, electronics and appliances) (773.33)
	Stranded wire, cables, cords, ropes, plaited bands, slings and the like, of aluminium (693.13)	Power transmission and distribution(a)			Automotive low voltage (773.16)	
		Copper(b)		Other (773.32)		
		Paper insulated (773.19)	Otherwise insulated (773.31)			
		tonnes	tonnes			
1986-87	12,072	4,161	36,718	3,765	99,792	12,555
1987-88	12,062	2,821	36,802	3,658	115,349	10,109
1988-89	13,935	2,511	42,275	4,741	226,123	10,686
/1989—						
January	231	n.p.	1,493	63	12,468	221
February	1,156	176	4,144	428	24,816	805
March	903	223	3,882	380	23,858	968
April	1,216	130	3,828	397	n.p.	875
May	1,166	211	3,921	470	31,202	1,050
June	1,223	342	4,268	534	n.p.	1,187
July	1,183	235	4,105	443	23,338	1,169
August	1,020	222	4,293	570	25,378	1,114
September	870	221	4,611	658	23,105	1,392
October	520	146	3,902	451	21,398	1,096
November	561	188	4,196	549	21,933	1,079
December	583	203	3,457	551	7,622	1,302
/1990—						
January	139	253	1,634	139	3,758	216
February	693	172	3,851	276	16,137	856
March	844	243	4,771	260	19,549	872
1988-89 July to Mar.	10,330	n.p.	30,258	3,340	142,387	7,574
1989-90 July to Mar.	6,413	1,883	34,820	3,897	162,219	9,096

(a) Includes household and building wiring. Excludes co-axial cable and other co-axial conductors from July 1989. (b) Weight of copper content only. (c) Excludes aluminium prior to July 1989. Also excludes winding wire, co-axial cable and other co-axial conductors from July 1989.

TABLE 7. ELECTRIC MOTORS (a)
(number)

Period	Flameproof AC electric motors (716.82,83,84)	Universal AC/DC motors (716.83,86)	DC motors and generators (b) (716.87, 37.5W (716.61)	Single phase AC motors					Over 3.0kW (716.70)
				Up to and including 37.5W (716.61)	Over 37.5W up to and including 190W (716.62,63)	Over 190W up to and including 380W (716.64,65)	Over 380W up to and including 746W (716.66,67)	Over 746W up to and including 3.0kW (716.68,69)	
1989—									
July	n.p.	n.p.	n.p.	n.p.	99,080	37,101	30,220	n.p.	—
August	—	n.p.	21	n.p.	107,472	32,825	50,165	n.p.	—
September	n.p.	n.p.	30	33,841	88,593	33,925	49,433	n.p.	—
October	n.p.	n.p.	32	39,592	83,198	28,494	39,099	n.p.	—
November	n.p.	n.p.	20	39,643	81,801	35,676	34,502	n.p.	—
December	n.p.	n.p.	22	26,896	53,233	26,063	28,783	n.p.	—
1990—									
January	n.p.	n.p.	23	17,734	32,906	10,945	13,849	n.p.	—
February	n.p.	n.p.	n.p.	n.p.	77,506	27,279	19,181	n.p.	—
March	n.p.	n.p.	44	31,360	71,710	27,221	27,016	34,725	—
1989-90 July to Mar.	n.p.	n.p.	n.p.	n.p.	695,499	259,529	292,248	n.p.	—

TABLE 7. ELECTRIC MOTORS(a) — continued
(number)

Period	Multiphase AC Motors						Total electric motors		
	Up to and including 0.19kW (716.71)	Over 0.19kW up to and including 1.9kW (716.72,73)	Over 1.9kW up to and including 7.5kW (716.74,75)	Over 7.5kW up to and including 45kW (716.76,77)	Over 45kW up to and including 132kW (716.78,79)	Over 132kW (716.81)	Original	Seasonally adjusted (c)	Trend (d)
1986-87							2,518,973	..	..
1987-88							2,844,027	..	..
1988-89							3,076,305	..	..
1989—									
January				Not available separately prior to July 1989			131,082	272,238	263,368
February							285,230	294,832	269,710
March							245,851	252,938	272,329
April							229,618	259,572	270,726
May							288,762	283,050	265,746
June							272,938	259,555	258,755
July	n.p.	3,657	n.p.	880	n.p.	n.p.	241,418	243,026	249,234
August	n.p.	4,425	n.p.	791	n.p.	n.p.	268,500	235,855	237,493
September	85	5,557	n.p.	462	n.p.	r38	266,469	241,577	224,255
October	n.p.	4,075	n.p.	802	37	n.p.	240,871	199,461	r212,761
November	210	3,287	2,550	844	n.p.	n.p.	242,282	201,944	r205,575
December	96	4,416	n.p.	n.p.	n.p.	n.p.	178,260	190,238	r201,526
1990—									
January	68	2,134	301	102	n.p.	n.p.	99,656	199,895	r198,499
February	582	5,641	n.p.	n.p.	n.p.	n.p.	202,000	208,848	r195,490
March	n.p.	n.p.	n.p.	582	44	n.p.	207,987	202,436	191,747
1988-89 July to Mar.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2,284,987	..	..
1989-90 July to Mar.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	1,947,443	..	..

(a) Includes those made and incorporated in manufacturers own products. (b) Excludes those for aircraft, motor vehicles, off-highway trucks, materials handling trucks and tractors. (c) See paragraph 5, Explanatory Notes. (d) See paragraph 6 to 9, Explanatory Notes.

TABLE 8. ELECTRICAL POWER TRANSFORMERS FOR TRANSMISSION AND DISTRIBUTION
OF POWER(a)
(Total kVA capacity)

Period	Up to and including 63 kVA		Over 63kVA up to and including 500kVA (771.17)	Over 500kVA up to and including 1,000 kVA (771.19)	Over 1,000 kVA up to and including 10,000 kVA (771.32)	Over 10,000 kVA (771.34)	Total
	Single phase (771.13)	Multi phase (771.15)					
1986-87				1,005,874	1,441,488	4,390,500	8,408,177
1987-88				890,098	1,466,468	4,913,002	8,560,150
1988-89				708,846	1,090,533	2,760,500	6,289,628
1989—							
January	Not available separately prior to July 1989			58,002	39,500	105,000	267,454
February				56,133	107,146	45,000	371,376
March				69,052	71,195	254,000	511,705
April				73,302	95,327	194,000	517,129
May				57,801	98,935	100,000	415,589
June				72,710	59,400	486,000	754,510
July	13,662	10,387	152,203	67,757	84,502	176,000	504,311
August	18,403	13,191	143,823	78,304	72,901	498,000	824,622
September	15,261	9,925	144,584	85,062	100,801	258,800	614,434
October	17,526	9,622	159,357	85,002	56,650	216,000	544,157
November	12,419	9,150	112,476	68,754	106,493	176,500	485,792
December	10,211	6,438	101,442	34,654	83,500	66,500	302,745
1990—							
January	6,542	2,726	70,308	54,183	39,570	50,000	223,329
February	22,402	8,629	134,762	68,161	76,450	807,000	1,117,404
March	15,984	10,324	90,285	91,507	88,550	137,500	434,150
1988-89 July to Mar.	n.a.	n.a.	n.a.	505,033	836,871	1,980,500	4,602,400
1989-90 July to Mar.	132,410	80,393	1,109,240	633,384	709,417	2,386,300	5,051,144

(a) Includes those made for incorporation by manufacturers in own products. Includes chokes and ballasts, prior to July 1989. Dual rating transformers are classified according to the maximum capacity at which they can operate as constructed at the time of manufacture.

TABLE 9. OTHER ELECTRICAL APPLIANCES AND EQUIPMENT

Period	Phonograph records and cassette tapes			Electrodes etc. for electric arc welding(a) (699.58)	Liquid supply or production meters, including calibration meters therefor (excluding reconditioned) (873.13)
	Conventional solid discs		Audio cassette tapes pre- recorded (898.62)		
	45 r.p.m. (898.72)	33 r.p.m. (898.74)			
	'000	'000	'000	'000kg	number
1986-87	7,391	14,335	21,426	14,571	204,476
1987-88	8,104	14,910	27,118	13,601	244,464
1988-89	8,407	13,403	29,621	13,001	290,044
1987—					
March qtr	1,450	2,829	4,787	3,722	45,540
June qtr	1,923	3,215	4,683	3,992	56,223
September qtr	2,136	3,566	6,435	4,307	49,462
December qtr	2,314	4,856	8,492	2,771	51,203
1988—					
March qtr	1,743	3,127	5,867	3,412	54,870
June qtr	1,912	3,361	6,324	3,110	88,929
September qtr	1,935	3,602	7,685	3,507	76,709
December qtr	2,255	4,558	9,558	3,134	75,223
1989—					
March qtr	1,729	2,686	5,604	2,853	63,070
June qtr	2,489	2,556	6,774	3,507	75,042
September qtr	2,987	2,588	7,953	3,971	77,099
December qtr	2,507	2,658	7,476	4,014	105,421
1990—					
March qtr	1,644	1,272	5,285	3,793	107,100
1988-89 : July to Mar.	5,919	10,846	22,847	9,494	215,002
1989-90 : July to Mar.	7,138	6,518	20,714	11,778	289,620

EXPLANATORY NOTES

Introduction

This publication is one of a series of nine containing monthly and quarterly production statistics. The titles of the other publications of this series are shown in paragraph 10.

Classification

2. Data contained in these publications are mostly based on monthly or quarterly collections conducted by the Australian Bureau of Statistics (ABS). Most items are identified by the commodity codes used in the Australian Manufacturing Production Commodity Classification (AMPCC), which was developed by the ABS to facilitate greater comparability of manufacturing production commodity statistics with import and export commodity statistics. AMPCC items were introduced into the monthly production collections (catalogues 8301.0, 8357.0 to 8363.0, 8367.0 and 8368.0) from July 1989. The last available data relating to superseded commodity items are published in the June 1989 issue. In cases where data are derived from sources other than ABS collections no commodity code is shown and the source of the data is acknowledged in a footnote.

Scope and coverage

3. Manufacturing commodity statistics collected by the ABS exclude details relating to single establishment manufacturing enterprises with fewer than four persons employed and production of establishments predominantly engaged in non-manufacturing activities but which may carry on, in a minor way, some manufacturing. However, except for a few commodities the effect on production levels and movements is marginal.

4. Annual figures shown in this publication are derived by aggregating monthly/quarterly production and relate to production during the year ended 30 June. They may differ from annual manufacturing census data which relate to the census year and, in the case of businesses unable to report on a June year basis, include details in respect of substitute accounting periods.

Seasonal adjustment

5. This publication contains seasonally adjusted statistics of several items. In the seasonal adjustment, account has been taken not only of normal seasonal factors, but also, where appropriate, of 'working-day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays, etc. in the month) and the influence of Easter and Australia Day which may, in successive years, affect figures for different months. However, care should be exercised in interpreting the figures for those months in which Christmas/New Year and Easter holidays fall as some manufacturers vary holiday shutdowns in the light of prevailing demand for their products. Details of the methods used in seasonally adjusting these and other series are available on request.

6. The smoothing of seasonally adjusted series to create trend estimates is a means of reducing the impact of the irregular component of the series. The trend estimates

have been derived by applying a 13-term Henderson weighted moving average to the seasonally adjusted series.

7. While this smoothing technique enables estimates of trend to be produced for the latest month, it does result in revisions to the estimates for the most recent months as data for subsequent months become available. Generally subsequent revisions become smaller and after 3 months have little impact on the series. There will also be revisions as a result of revisions to the original estimates and annual reviews of seasonal and 'working day' factors.

8. Because of the highly irregular nature of some production series it is not possible to discern with reasonable confidence the current direction of the trend at the end of these series. For such highly irregular series the ABS does not provide the last two trend estimates.

9. Users may wish to refer to the ABS Information Papers *A Guide to Smoothing Time Series - Estimates of 'Trend'* (1316.0) and *Time Series Decomposition - An Overview* (1317.0) for more detailed information on smoothing of seasonally adjusted time series data.

Related publications

10. Other ABS publications which may be of interest are:

Production Statistics, Australia, Preliminary (8301.0) — issued monthly

Production of Clothing and Footwear, Australia (8358.0) — issued monthly

Production of Food, Drink, Tobacco and Stock and Poultry Food, Australia (8359.0) — issued monthly

Production of Fibres, Yarns, Fabrics, Bedding and Floor Coverings, Australia (8360.0) — issued monthly

Production of Building Materials and Fittings, Australia (8361.0) — issued monthly

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11. Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia* (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Publications Advice are available for any ABS office.

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- n.y.a. not yet available
- n.p. not available for separate publication (but included in totals where applicable)
- nil or rounded to zero
- .. not applicable
- r revised since previous issue
- n.a. not available.

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ISSN 1034-3210