



September 1989
**Production of Household
Appliances and Electrical
Equipment, Australia**

Catalogue No. 8357.0

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**PRODUCTION OF HOUSEHOLD APPLIANCES
AND ELECTRICAL EQUIPMENT, AUSTRALIA
SEPTEMBER 1989**

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	..	..		
1988—					
July	29,588	27,606	30,409		
August	36,995	33,182	31,241		
September	38,509	34,945	32,153		
October	32,289	31,441	32,569		
November	36,747	32,853	32,505		
December	33,397	36,023	32,347		
1989—					
January	11,792	24,452	32,522		
February	37,554	34,999	33,189		
March	36,050	34,373	34,102		
April	33,299	36,190	34,314		
May	38,479	36,447	33,789		
June	31,836	31,174	32,536		
July	30,810	29,885	30,848	n.y.a.	n.y.a.
August	33,239	28,550	29,094	n.y.a.	n.y.a.
September	29,166	27,130	27,708	n.y.a.	n.y.a.
1988-89 July to Sept.	105,092	..	..	n.a.	n.a.
1989-90 July to Sept.	93,215	..	..	n.y.a.	n.y.a.

(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
(⁰⁰⁰)

Refrigerators-d							
Period	Single door (775.23)	Twin door		Original	Seasonally adjusted (a)	Trend(b)	Freezers—domestic (upright and chest) (775.22)
		Frost free (775.24)	Other (775.25)				
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
1988—							
July	8,003	12,311	9,891	30,205	30,926	32,063	8,949
August	12,497	12,542	11,185	36,224	31,543	30,430	9,834
September	13,479	8,762	14,208	36,449	30,741	28,995	10,170
October	9,164	9,462	10,205	28,831	27,475	28,378	9,333
November	5,712	10,070	10,701	26,483	23,402	28,742	10,640
December	6,966	7,159	12,674	26,799	29,994	29,906	8,237
1989—							
January	7,059	5,419	10,374	22,852	35,600	31,492	8,117
February	10,805	8,590	15,713	35,108	33,657	33,152	8,835
March	10,683	6,030	13,994	30,707	34,204	34,512	9,009
April	9,763	6,221	14,568	30,552	32,927	35,147	8,153
May	13,789	8,185	17,504	39,478	36,841	35,080	10,061
June	12,270	7,580	16,091	35,941	34,895	34,790	7,393
July	10,766	9,181	15,193	35,140	35,747	34,404	8,676
August	10,097	10,366	18,460	38,923	33,247	n.y.a.	9,843
September	8,217	9,307	17,319	34,843	31,410	n.y.a.	7,364
1988-89 July to Sept.	33,979	33,615	35,284	102,878	..	..	28,953
1989-90 July to Sept.	29,080	28,854	50,972	108,906	..	..	25,883

(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	Electric space heating and soil heating apparatus		Air conditioning machines(a)			
	Kettles (775.99)	(b) (775.82)	Electric fans (743.42,44)	Self contained	Other	
				(c) (741.51)	Domestic (741.52)	Other (741.54)
1986-87	422,084	603,350				
1987-88	623,903	580,315				
1988-89	605,473	594,631				
1988—						
July	28,182	21,320				
August	49,843	17,043				
September	49,331	4,520				
October	59,014	16,624				
November	58,112	n.p.				
December	65,994	n.p.				
Not available prior to July 1989						
1989—						
January	24,913	n.p.				
February	51,009	102,405				
March	54,702	97,349				
April	54,294	111,736				
May	47,228	98,592				
June	62,851	62,906				
July	43,095	23,532	r63,581	n.y.a.	1,318	1,061
August	n.p.	20,270	89,577	n.y.a.	1,376	r986
September	n.p.	11,909	73,851	n.y.a.	1,860	900
1988-89 July to Sept.	127,356	42,883	n.a.	n.a.	n.a.	n.a.
1989-90 July to Sept.	n.p.	55,711	227,009	n.y.a.	4,554	2,947

(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							Total		
	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)	Original	Seasonally Adjusted (b)	Trend (c)
1986-87							210,590	..	..
1987-88							176,756	..	..
1988-89	—	n.p.	94,499	n.p.	55,235	n.p.	162,398	..	..
1988—									
July	—	n.p.	6,408	n.p.	2,694	437	11,141	10,794	11,851
August	—	n.p.	9,000	n.p.	4,350	73	14,145	12,524	12,081
September	—	n.p.	7,285	n.p.	4,408	447	13,973	11,874	12,526
October	—	n.p.	8,371	n.p.	4,483	483	14,117	13,110	13,004
November	—	n.p.	8,728	n.p.	5,276	n.p.	15,604	13,748	13,468
December	—	n.p.	9,180	n.p.	3,582	n.p.	14,215	14,867	13,881
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	14,614
May	—	n.p.	7,883	n.p.	7,814	—	16,164	14,494	14,717
June	—	n.p.	7,933	n.p.	n.p.	—	14,689	13,841	14,744
July	—	—	8,113	n.p.	n.p.	—	14,214	14,795	14,663
August	—	n.p.	12,192	n.p.	4,603	—	19,041	16,194	14,522
September	—	n.p.	7,682	n.p.	6,375	—	14,279	12,787	14,291
1988-89 July to Sept.	—	n.p.	22,693	n.p.	11,452	957	39,259	..	..
1989-90 July to Sept.	—	n.p.	27,987	n.p.	n.p.	—	47,534	..	..

(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	..	..
1988—			
July	19,544	24,514	25,437
August	29,717	23,983	24,377
September	37,552	25,787	23,748
October	36,185	22,383	23,731
November	35,229	20,841	24,317
December	34,325	28,895	25,476
1989—			
January	15,563	23,814	26,578
February	32,705	31,367	27,426
March	19,123	25,341	27,689
April	14,275	29,278	27,270
May	12,425	26,906	26,177
June	11,643	19,652	24,661
July	22,678	28,618	22,960
August	24,463	18,534	n.y.a.
September	30,139	21,019	n.y.a.
1988-89 July to Sept.	86,813	..	..
1989-90 July to Sept.	77,280	..	..

(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				
	Stranded wire, cables, cordage, ropes, plaited bands, slings and the like, of aluminium (693.13)	Power transmission and distribution(a)			Automotive low voltage (773.16)	Other (e.g. for communications, electronics and appliances) (c) (773.33)
		Copper(b)		Other (773.32)		
		Paper insulated (773.19)	Otherwise insulated (773.31)			
	tonnes	tonnes	tonnes	tonnes	'000 metres	tonnes
1986-87	12,072	4,161	36,718	3,765	99,792	12,555
1987-88	12,062	2,820	36,802	3,658	115,349	10,109
1988-89	13,935	2,511	42,275	4,741	226,123	10,686
1988—						
July	1,346	250	3,170	348	10,629	865
August	1,575	146	3,468	420	15,006	906
September	1,593	251	3,808	425	9,632	1,023
October	1,313	275	3,135	351	12,394	893
November	1,204	n.p.	3,684	435	10,347	974
December	1,009	n.p.	3,474	490	23,236	919
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	300	4,086	443	23,338	1,103
August	1,020	310	4,274	569	25,378	1,025
September	870	308	4,595	657	23,105	1,305
1988-89 July to Sept.	4,514	647	10,446	1,193	35,267	2,794
1989-90 July to Sept.	3,073	918	12,955	1,669	71,821	3,433

(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)
('000)

Single phase AC motors									
Period	Flameproof AC electric motors (716.82,83,84)	Universal AC/DC motors (716.85,86)	DC and generators (b) (716.87, 88,89,91)	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)	Over 3.0kW (716.70)
					Not available separately prior to July 1989				
1989—									
July	n.p.	n.p.	n.p.	n.p.	99.1	37.1	30.2	n.p.	—
August	—	n.p.	0.02	n.p.	107.5	32.8	50.2	n.p.	—
September	n.p.	n.p.	0.03	n.p.	88.6	33.9	49.4	n.p.	—
1989-90 July to Sept.	n.p.	n.p.	n.p.	n.p.	295	104	130	n.p.	—

TABLE 7. ELECTRIC MOTORS(a) — continued
('000)

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)	Seasonally adjusted (c)	Trend (d)
1986-87						r2,519	..	..
1987-88						2,844	..	..
1988-89						r3,076	..	..
Not available separately prior to July 1989								
1988—								
July						252	246	254
August						286	259	248
September						294	253	244
October						249	216	244
November						302	253	249
December						240	248	256
1989—								
January						131	272	263
February						285	295	270
March						246	253	272
April						230	260	270
May						289	283	264
June						273	260	256
July	n.p.	3.66	n.p.	0.88	n.p.	n.p.	r241	r243
August	n.p.	4.43	n.p.	0.79	n.p.	n.p.	269	236
September	n.p.	5.56	n.p.	0.47	n.p.	n.p.	266	242
1988-89 July to Sept.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	832	..
1989-90 July to Sept.	n.p.	13.6	n.p.	2.14	n.p.	n.p.	776	..

(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)

Period	Up to and including 63 kVA		Over 63 kVA up to and including 500 kVA (771.17)	Over 500 kVA 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	18,408,177
1987-88				890,098	1,466,468	4,913,002	18,560,150
1988-89				708,846	1,090,533	2,760,500	6,290,420
1988—							
July				37,752	122,645	65,000	349,516
August				57,002	138,800	496,500	832,283
September				61,502	101,070	161,000	466,656
October				57,634	77,940	544,000	817,903
November				65,252	96,595	145,000	564,395
December	Not available separately prior to July 1989			42,704	81,980	165,000	421,504
1989—							
January				58,002	39,500	105,000	267,518
February				56,133	107,146	45,000	371,376
March				69,052	71,195	254,000	511,761
April				73,302	95,327	194,000	517,129
May				57,801	98,935	100,000	415,773
June				72,710	59,400	486,000	754,606
July	13,458	10,369	152,203	67,757	84,502	176,000	1,504,289
August	18,323	13,181	143,823	78,304	72,901	498,000	824,532
September	15,140	9,906	144,580	85,062	100,801	258,800	614,289
1988-89 July to Sept.	n.a.	n.a.	n.a.	156,256	362,515	722,500	1,648,455
1989-90 July to Sept.	46,921	33,456	440,606	231,123	258,204	932,800	1,943,110

(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. BATTERIES
(number)

Lead-acid batteries, dry charged and wet cell				
Period	S.L.I. automotive, new		Traction 2 volt cells, new (778.16)	Non- rechargeable batteries(a) (778.11)
	6 volt (778.14)	12 volt (778.15)		
1986-87	107,814	2,342,798		
1987-88	94,613	2,280,135		
1988-89	n.p.	n.p.		
1988—				
July	5,982	229,812		
August	14,275	225,812		
September	7,579	259,849		
October	8,696	182,594		
November	4,759	160,108		
December	2,344	122,353		
1989—				
January	3,994	109,858		
February	4,675	184,024		
March	4,956	230,645		
April	8,202	215,124		
May	3,018	228,190		
June	n.p.	n.p.		
July	n.p.	219,083	—	—
August	n.p.	n.p.	—	—
September	n.p.	n.p.	—	—
1988-89 July to Sept.	27,836	715,473	n.a.	n.a.
1989-90 July to Sept.	n.p.	n.p.	—	—

(a) Quantity reported is the number of cells.

TABLE 10. 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			
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	240,044
1986—					
September qtr	1,778	3,317	4,643	4,100	53,425
December qtr	2,240	4,974	7,313	2,757	49,288
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	2,187	2,588	7,386	3,971	77,099

(a) Includes only electrodes for manual welding up to June Quarter 1989.

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 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

Production of Paper, Plastics, Paints, Industrial Chemicals and Detergents, Australia (8362.0) — issued monthly

Production of Transport Equipment, Australia (8363.0) — issued quarterly

Production of Metal Products, Australia (8367.0) — issued monthly

Production of Energy Products, Australia (8368.0) — issued monthly

Manufacturing Commodities : Selected Principal Articles Produced, Australia 1986-87, Preliminary (8356.0)

Manufacturing Commodities : Principal Articles Produced, Australia 1986-87 (8303.0)

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