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87001-RR



IMPORT ANALYSIS

Market Research Support

POWER SUPPLIES

JANUARY TO DECEMBER 1985

Pub. No: 87001-RR May 7, 1987



Government
of Canada

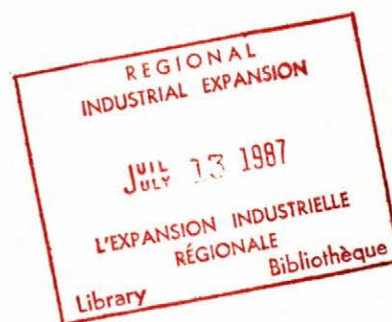
Regional Industrial
Expansion

Gouvernement
du Canada

Expansion industrielle
régionale

Canada

I.D. 3070



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EXPLANATORY NOTES

Method

The data shown in this analysis is extracted from Revenue Canada Customs documents. These documents provide a description of the products, names of importers, exporters, quantities, dollar values, unit prices, countries of origin, provinces of entry, tariff applications and rates of exchange.

The information presented in this report is more detailed than that generally available from Statistics Canada or other publications. Data which might reveal information about individual importers is aggregated.

Valuation

Dollar values shown in this report are based on selling price F.O.B. plant, in Canadian dollars. This selling price represents the value paid by the importer, excluding all freight, packing and insurance costs when specified. All trade discounts, when applicable, are also deducted from the selling price.

Rounding

Figures may not add due to rounding.

REFERENCE SOURCES

Department of Regional Industrial Expansion
Statistics Canada
Revenue Canada

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The nearest DRIE Regional Office.
These offices are listed on the last
page of this publication.

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IMPORT ANALYSIS

POWER SUPPLIES

I. INTRODUCTION AND SCOPE

This Import Analysis is one of a series prepared in order to assist businesses and other organizations in their market research of specific products. The detailed import information provided in these reports supports studies by organizations seeking to expand existing production lines, change individual product characteristics or engage in new manufacturing investment in Canada. The coverage of an import analysis is developed in close consultation with the client, and is tailored to meet those specific requirements. It is important to emphasize that this report does not attempt any assessment as to the feasibility of competing in a particular market.

The term power supply is interpreted as a device providing a constant output power density at a specified input voltage. Quality power supplies offer both voltage and current regulation with automatic crossover to voltage or current mode as required by the size of the load. Another common feature is the incorporation of over voltage and over temperature devices into the power supply design.

This analysis of imports of power supplies is based on a detailed examination of Revenue Canada Customs imports documents for the period January to December 1985. The following Canadian International Trade Classification (C.I.T.C.) import commodity codes were analyzed:

639-30-20 Power Supply, Communication Equipment
688-79-49 Power Supply, Not Elsewhere Specified (NES)

Due to the large volume of documents classified to the aforementioned C.I.T.C. import commodity codes, only those shipments having a value of \$7 000 and over were examined.

Total figures in this report do not correspond to those published by Statistics Canada. The differences are explained in Appendix H.

II. ANALYSIS OF IMPORTS

Imports of power supplies, as reported on documents examined for the period January to December 1985, totalled 104 011 units, valued at \$19 million.

Of the total import value, imports of power supplies to manufacturing industries accounted for \$11.9 million or 62 per cent. This was followed by imports to the wholesale trade with \$5.9 million, or 31 per cent. Within these categories, imports of power supplies were particularly high for the telephone, telegraph, radio and television manufacturing industries as well as for electrical and electronic wholesale trade industries. Further details on industries purchasing power supplies are shown in Appendix A.

SUMMARY OF IMPORTS - BY END USE INDUSTRY

JANUARY TO DECEMBER 1985

<u>End Use Industry</u>	<u>Value (\$000)</u>	<u>% of Total Value</u>
Mining	48	*
Construction	137	1
Manufacturing	11 873	62
Transportation, Communication, and other public utilities	110	1
Wholesale Trade	5 976	31
Retail Trade	57	*
Finance, Insurance, and Real Estate	14	*
Other Services	765	4
Not further identified	<u>143</u>	<u>1</u>
	19 124	100

* Less than one per cent

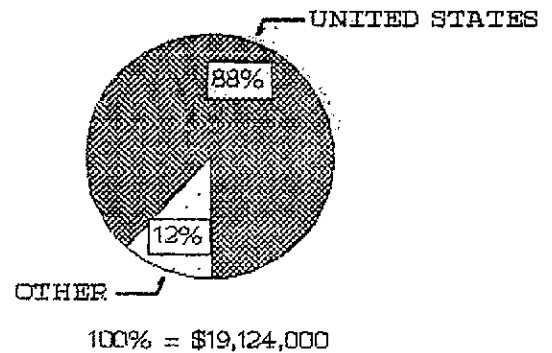
Ninety-nine per cent of the total quantity represents power supplies with a unit value of less than \$5 000. Power supplies under \$50. account for 63 per cent by quantity and 10 per cent by value of the total import market. The major proportion of imports are in the price range \$1 000 to \$5 000 totalling \$6.2 million or 33 per cent of all imports.

IMPORTS OF POWER SUPPLIES - BY PRICE RANGE, 1985

<u>Price Range</u> (\$)	<u>Quantity</u> (No.)	<u>Value</u> (\$)	<u>Average</u> <u>Unit Price</u> \$
Over 1 to 50	65 778	1 867 293	28.39
Over 50 to 100	18 379	1 275 558	69.40
Over 100 to 200	5 408	767 029	141.83
Over 200 to 500	7 206	2 478 258	343.83
Over 500 to 1,000	3 925	2 695 376	686.72
Over 1,000 to 5,000	3 069	6 267 328	2 042.14
Over 5,000 to 10,000	135	947 817	7 020.87
Over 10,000 to 20,000	73	1 028 442	14 088.25
Over 20,000 to 135,000	<u>38</u>	<u>1 797 335</u>	47 298.29
	104 011	19 124 436	.

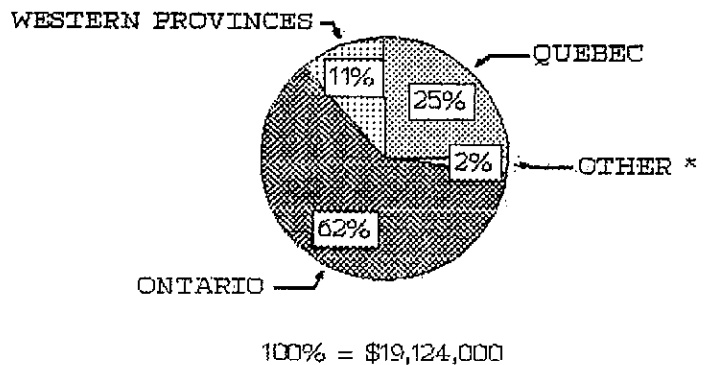
GRAPH 1 - COUNTRY OF ORIGIN

The United States was the dominant source of imports of power supplies, during the period analysed, accounting for \$17 million; or 88 per cent of the total import value. Japan, with \$912 000, was the only other country that shipped close to \$1 million worth of power supplies. Other includes the following countries in order of value: Japan, Hong Kong, Mexico, Puerto Rico, Malaysia, Federal Republic of Germany, Czechoslovakia, United Kingdom, Taiwan, Republic of Korea, Sweden and Switzerland. Full details of power supplies imports by country of origin are shown in Appendix 8.



GRAPH 2 - PROVINCE OF CLEARANCE

Ontario was the major province of clearance accounting for \$12 million, or 62 per cent of the total import value, followed by Québec with 25 per cent (see imports, by province of clearance Appendix C).



* New Brunswick and Nova Scotia

IMPORT MARKET CONCENTRATION, 1985

<u>Consignees</u> By value	<u>Cumulative</u> <u>Value</u> (\$,000)	<u>% of Total</u> <u>Value</u>
Top three consignees	5 177	27
Top six consignees	8 502	44
Top ten consignees	10 820	57
All consignees	19 124	100

"Top Consignees" are the largest consignees of power supplies.

There were at least 170 known consignees or importers of power supplies during the calendar year 1985. Five importers of power supplies had imports of at least \$1 million during that period. The top 10 consignees accounted for \$10.8 million, or 57 per cent of the total import value. Appendix D lists all importers.

IMPORTS OF POWER SUPPLIES BY MAJOR TARIFF ITEM, 1985:

<u>Tariff Item</u>	<u>Condensed</u> <u>Description</u>	<u>Value</u> \$	<u>% of Total</u> <u>Value</u>
44524-01	Electric Apparatus	10 243 897	54
41417-01	Electronic Apparatus	1 740 272	9
44059-01	Auxiliary Power Units	1 521 072	8
44533-01	Radio & Television Apparatus	1 413 435	7
44508-03	Electric Telephone Apparatus	1 387 215	7
Other		<u>2 818 545</u>	<u>15</u>
TOTAL		19 124 436	100

Major tariff items applicable to imports of power supplies, during the period analysed, are listed above in descending order of value of imports. It is noteworthy that over half the imports of power supplies are entering Canada under a relatively high tariff item, that pertaining to Electric Apparatus and Parts. Appendix G shows complete descriptions and individual tariff item applications.

III. CANADIAN PRODUCTION

Statistics Canada reports shipments of power supplies by Canadian manufacturers as follows:

	<u>1984 *</u>		<u>Average</u>
	<u>(units)</u>	<u>(\$,000)</u>	<u>Unit Price</u>
			<u>\$</u>
Power Pack (non-rotating)	62 293	25 094	403

* latest year available.

Canadian manufacturers are listed in Appendix F.

IV. MARKET SUMMARY

Major changes have taken place in the power supply industry during the past few years. Pulse-width-modulation has become the dominant form of power conversion relegating linear techniques to a secondary, and shrinking, share of the market. The rapid growth of high frequency power conversion is expected to change the face of the power conversion industry in the future. Just as a new group of industry players emerged from the linear to switcher transition, another new group of dominant manufacturers could emerge as a result of the transition to high frequency conversion.

Analysing the original equipment market and the value of imports by the end use industry, it is readily apparent that there is a growing demand from makers of communications, computer and military equipment. The military is one of the biggest buyers of power supplies and these are largely imported. The military, unlike the commercial market, has seen segment prices remain fairly strong. New manufacturing dedicated to the military market should be seriously considered by manufacturers of power supplies, since most of this market need is being supplied by imports.

Telecommunications is a \$2 billion industry in Canada with strong growth potential projected in the future. Production of power supplies directed to the communications industry should see impressive growth based on the robustness of this sector.

Uninterruptible power sources have become a booming market in Canada and the United States. The market for UPS systems is expected to grow rapidly and as a result of this market growth, new and existing participants are expected to enjoy a relatively large volume of sales.

Data on the level of Canadian imports in 1985 and 1986 indicates the large size of the market that is available for Canadian production. The size of the market and its growth rate indicate it might be possible to establish in Canada several commercially viable operations for the manufacture of various types of power supplies, within a reasonable period of time. Serious consideration should thus be given, by Canadian and foreign companies of electrical equipment, to the manufacture in Canada of custom-type and off-the-shelf power supplies, particularly units based on switch-mode designs.

IMPORTS OF POWER SUPPLIES BY END USE INDUSTRY, 1985

In order to classify imports by end use industry, the importers' names were processed according to the Standard Industrial Classification (SIC), an index of business activity.

Establishments are assigned an SIC code by Statistics Canada, which corresponds to their main area of activity.

	<u>Value</u> (\$)
<u>Mining</u>	
Drilling oil and gas liquids	8 160
Oil and gas field exploration services	16 597
Oil and gas field services, n.e.c.*	<u>23 389</u>
	48 146
<u>Construction</u>	
Structural steel erection	11 134
Special trade contractors, n.e.c.*	<u>126 239</u>
	137 373
<u>Manufacturing</u>	
Industrial inorganic chemicals, n.e.c.*	16 413
Chemicals and chemical preparations, n.e.c.*	9 745
Miscellaneous plastics products	10 201
Vitreous china table and kitchen articles	18 005
Blast furnaces (including coke ovens), steel works, and rolling mills	37 933
Primary production of aluminum	23 896
Prefabricated metal buildings and components	7 000
Iron and steel forgings	15 696
Miscellaneous fabricated wire products	20 086
Fabricated pipe and fabricated pipe fittings	80 793
Steam, gas and hydraulic turbines and turbine generator set units	66 593
Special dies and tools, die sets, jigs and fixtures and industrial molds	53 885
General industrial machinery and equipment, n.e.c.*	17 451
Electronic computing equipment	991 266
Personal computers	7 809
Power distribution and specialty transformers	82 090
Switchgear and switchboard apparatus	224 829
Motors and generators	478 099
Industrial controls	95 265
Welding apparatus, electric	12 138
Electric lamps	9 590
Current carrying wiring devices	19 425
Commercial, industrial and institutional electric lighting fixtures	44 075

* Not elsewhere classified indicated by n.e.c.

IMPORTS OF POWER SUPPLIES BY END USE INDUSTRY, 1985 (CONTINUED)

	<u>Value</u> (<u>\$</u>)
<u>Manufacturing</u>	
Lighting equipment n.e.c.*	8 860
Radio and television receiving sets, except communication types	137 737
Telephone and telegraph apparatus	3 537 918
Radio and television transmitting, signalling and detection equipment and apparatus	3 690 058
Semiconductors and related devices	171 982
Electronic components, n.e.c.*	261 326
Aircraft	265 540
Aircraft engines and engine parts	106 563
Ship building and repairing	44 146
Engineering, laboratory, scientific and research instruments and associated equipment	251 365
Instruments for measuring and testing of electricity and electrical signals	922 110
Surgical and medical instruments and apparatus	<u>132 938</u>
	11 872 826
<u>Transportation, Communication, and other public utilities</u>	
Railroads, line haul operating	16 050
Air transportation, certificated carriers	28 894
Freight forwarding	12 919
Communication services, n.e.c.*	35 674
Electric companies and systems	<u>16 816</u>
	110 353
<u>Wholesale Trade</u>	
Photographic equipment and supplies	20 717
Ferrous and nonferrous metal semi-finished products	11 978
Electrical apparatus and equipment, wiring supplies and construction material	2 277 640
Electrical household appliances	353 026
Electronic parts and equipment	2 739 420
Plumbing and heating equipment and supplies (hydraulic)	260 719
Commercial machines and equipment	57 154
Industrial machinery and equipment	116 733
Professional equipment and supplies	24 740

* Not elsewhere classified indicated by n.e.c.

IMPORTS OF POWER SUPPLIES BY END USE INDUSTRY, 1985 (CONTINUED)

	<u>Value</u> <u>(\$)</u>
<u>Wholesale Trade</u>	
Transportation equipment and supplies except motor vehicles	95 393
Durable goods, n.e.c.*	9 241
Drugs, drug proprietaries and druggists' sundries	<u>8 940</u>
	5 975 701
<u>Retail Trade</u>	
Grocery stores	17 144
Motor vehicle dealers (used only)	11 440
Home entertainment appliance stores	10 240
Miscellaneous retail stores, n.e.c.*	<u>18 368</u>
	57 192
<u>Finance, Insurance, and Real Estate</u>	
Holding companies	<u>14 385</u>
	14 385
<u>Services</u>	
Photographic studios, portrait	8 198
Computer programming and other software services	110 667
Computer related services, n.e.c.*	508 029
Research and development laboratories	85 077
Equipment rental and leasing services	26 053
Vocational schools, except vocational high schools, n.e.c.*	18 375
Research administration, provincial	<u>9 042</u>
	765 441
Other	<u>143 019</u>
GRAND TOTAL	19 124 436

* Not elsewhere classified indicated by n.e.c.

APPENDIX B

IMPORTS OF POWER SUPPLIES BY COUNTRY OF ORIGIN, 1985

	<u>Value</u> (\$000)
United States	16 793
Japan	912
Hong Kong	327
Mexico	216
Puerto Rico	166
Malaysia)	
Federal Republic of Germany)	442
Czechoslovakia)	
United Kingdom	108
Taiwan	56
Republic of Korea)	
Sweden)	104
Switzerland)	
	<hr/>
	19 124

* Aggregated for reasons of confidentiality.

APPENDIX C

IMPORTS OF POWER SUPPLIES BY PROVINCE OF CLEARANCE, 1985

	<u>Value</u> (\$000)	<u>% of Total</u> <u>Value</u>
Ontario	11 944	62
Québec	4 819	25
British Columbia	1 223	6
Manitoba	537	3
Alberta	381	2
Other (New Brunswick, Nova Scotia)	<hr/> 220	<hr/> 2
	19 124	100

CANADIAN IMPORTERS

Importers of power supplies during the period January to December 1985, as indicated in this report, are listed below in alphabetical order. Where the importer is not the same as the consignee, (i.e. the recipient of the goods shipped), the name of the consignee rather than that of the importer is listed. The importer or consignee is not necessarily the end-user of the product.

NOTE: This list includes all importers except individuals.

<u>Name</u>	<u>Address</u>
A.E.I. Telecommunications (Canada) Ltd.	Winnipeg, Man.
AEL Microtel Ltd.	Burnaby, B.C.
AES Data Inc.	Lachine, Qué.
AG Simpson Ltd.	Windsor, Ont.
AT & T Canada Inc.	Mississauga, Ont.
Addison TV Parts Ltd.	Montréal, Qué.
Air Canada Inc. (Purchasing & Supply)	Montréal, Qué.
Alberta Research Council	Edmonton, Alta.
Allen Bradley Canada Ltd.	Cambridge, Ont.
Almonte Tele Systems	Almonte, Ont.
Alyth Diesel Shop	Calgary, Alta.
Amdahl Communications Ltd.	Toronto, Ont.
American Superior Electric Co.	Toronto, Ont.
Armaco Electronics Ltd.	Vancouver, B.C.
Arrow Cesco Electronics	Montréal, Qué.
Associated Test Equipment	Scarborough, Ont.
Atomic Energy of Canada Ltd.	Chalk River, Ont.
Aviation Electric Ltd.	St-Laurent, Qué.
AviQUIPO of Canada Ltd.	Dorval, Qué.
BBD Electric Ltd.	Mississauga, Ont.
Bailey Controls	Burlington, Ont.
Bank of Canada	Ottawa, Ont.
Brigadoon Inc., Oil Corp.	Brigden, Ont.
Burroughs Canada, A Div. of Burroughs Memorex Inc.	Winnipeg, Man.
CAE Electronics Ltd.	Montréal, Qué.
CMQ Communications Inc.	Toronto, Ont.
Canadair Ltd.	St-Laurent, Qué.
Canadian Cable Systems Ltd.	London, Ont.
Canadian General Electric Co. Ltd. Calma Div.	Toronto, Ont.
Canadian Marconi Company	Montréal, Qué.
Canadian National Railway	Montréal, Qué.
Cardon Communications Inc.	Hamilton, Ont.
Cemar Electro Inc.	Lacolle, Qué.
China Commercial Co.	Scarborough, Ont.
Computer Environments Solutions Inc.	Calgary, Alta.
Control Data Canada Ltd.	Mississauga, Ont.
Crawford Allen Associates Ltd.	Mississauga, Ont.

CANADIAN IMPORTERS (CONTINUED)

<u>Name</u>	<u>Address</u>
Datagram Inc.	Boucherville, Qué.
Decade Electronics Ltd.	Scarborough, Ont.
Dehavilland Aircraft of Canada Ltd.	Downsview, Ont.
Deskin A Sales Corp.	Markham, Ont.
Despatch Industries	Mississauga, Ont.
Develcon Electronics Ltd.	Saskatoon, Sask.
Digidyne Inc.	Lachine, Qué.
Digital Video Systems Corp.	Scarborough, Ont.
Dipix Systems Ltd.	Ottawa, Ont.
Dofasco Inc.	Hamilton, Ont.
Eastcom Industries Ltd.	Weston, Ont.
École Polytechnique de Montréal	Montréal, Qué.
Electronics Test Centre	Edmonton, Alta.
Emhart Canada Ltd.	Woodstock, Ont.
Energy, Mines & Resources	Ottawa, Ont.
Engineered Sound Systems Ltd.	Mississauga, Ont.
Ericsson Comm. Inc.	Mississauga, Ont.
Exploration Logging Canada Ltd.	Dartmouth, N.S.
Farinon Canada Ltd. (Harris)	Dorval, Qué.
Ferranti Packard Electronics Inc.	Mississauga, Ont.
Firth Brown Stainless Ltd.	Montréal, Qué.
Foundation Instruments Inc.	Nepean, Ont.
Future Electronics Inc.	Pointe-Claire, Qué.
GEAC Canada Ltd.	Markham, Ont.
GEOCOM World Communications Inc.	Richmond, B.C.
GTE Sylvania Canada Ltd.	Drummondville, Qué.
General Instrument of Canada Ltd.	Toronto, Ont.
Genstar Rental Electronics Inc	Rexdale, Ont.
Gould Modicon, A Div. of Gould Mfg. of Canada Ltd.	Mississauga, Ont.
Graco Canada Inc.	Mississauga, Ont.
Great Atlantic & Pacific Tea Co.	Toronto, Ont.
Gtech North Computer Systems Corp.	St-Laurent, Qué.
Hallmark Tools Ltd.	Windsor, Ont.
Hammond Manufacturing Co. Ltd.	Guelph, Ont.
Hawker Siddeley Canada Inc.	Mississauga, Ont.
Hewlett Packard (Canada) Ltd.	Kirkland, Qué.
	Mississauga, Ont.
Hydro Québec	Varenes, Qué.
ITT Components Inc.	Downsview, Ont.
Icom American Inc.	Vancouver, B.C.
Indal Technologies Inc.	Mississauga, Ont.
Independent Extrusion & Die Co.	Pickering, Ont.
Interfax Systems Inc.	Mississauga, Ont.
	St-Laurent, Qué.
International Rectifier Canada Ltd.	Markham, Ont.
International Submarine Engr.	Port Moody, B.C.

CANADIAN IMPORTERS (CONTINUED)

<u>Name</u>	<u>Address</u>
J.V.C. Canada Inc.	Scarborough, Ont.
Jack A. Frost Ltd.	Mississauga, Ont.
Jérôme & Francis Co. Ltd.	Vancouver, B.C.
Knytron Power Systems Ltd.	Edmonton, Alta.
Lab Volt Limitée	Ste-Foy, Qué.
Larcam Communication Equipment Ltd.	Mississauga, Ont.
Leigh Instruments Ltd.	Carleton Place, Ont.
Leimar Transportation Services Inc.	Vancouver, B.C.
Lenbrook Industries Ltd.	Scarborough, Ont.
Linear Marketing Corp.	Mississauga, Ont.
Litton Systems Canada Ltd.	Rexdale, Ont.
Logic One Ltd.	Mississauga, Ont.
Lumacell Inc.	Scarborough, Ont.
Lynes United Services Ltd.	Edmonton, Alta.
Matsuskita Electric of Canada Ltd.	Mississauga, Ont.
Micos Computer Systems Corp.	Mississauga, Ont.
Microtel Ltd.	Burnaby, B.C.
Mitel Corp. (Switching Div.)	Renfrew, Ont.
	Kanata, Ont.
Motorola Canada Limited, Comm. Division	North York, Ont.
Murata Erie North America Ltd.	Trenton, Ont.
	Brampton, Ont.
National Defence Supply Depot	Downsview, Ont.
	Edmonton, Alta.
	Greenwood, N.S.
	Moncton, N.B.
National Research Council (Physics Dept.)	Ottawa, Ont.
National School Services Ltd.	Winnipeg, Man.
Newcor Canada Ltd.	Windsor, Ont.
Northern Telecom Canada Ltd.	Belleville, Ont.
	Brampton, Ont.
	Aylmer, Qué.
	Bramalea, Ont.
Oak Supply Inc.	Markham, Ont.
Oerlikon Aerospace Inc.	Rexdale, Ont.
Ogivar Inc.	Montréal, Qué.
Omnitronix Ltd.	St-Laurent, Qué.
Ontario Northland Telecommunications	North Bay, Ont.
Paltronics Ltd.	Oakville, Ont.
Patlon Aircraft & Industries	Mississauga, Ont.
Perkin-Elmer Canada Ltd.	Mississauga, Ont.
Pharmacia (Canada) Inc.	Dorval, Qué.
Phillips Electronics Ltd.	Scarborough, Ont.
Power Control Inc.	Weston, Ont.
Prelco Electronics Ltd.	Montréal, Qué.
Pyle National of Canada Ltd.	Mississauga, Ont.
Pyrotronics Canada Limited	Markham, Ont.

CANADIAN IMPORTERS (CONTINUED)

<u>Name</u>	<u>Address</u>
RCA Inc.	Ste-Anne de Bellevue, Qué. Toronto, Ont. Prescott, Ont. Waterloo, Ont.
Raytheon Canada Ltd.	Ste-Thérèse, Qué.
Reynolds Extrusion Company Ltd.	North Surrey, B.C.
Robar Industries Ltd.	Georgetown, Ont.
Rockwell Int. of CDA/Wescom Div.	Richmond, B.C.
Roland Canada Music Ltd.	Montréal, Qué.
Rolbec Industries Inc.	Montréal, Qué.
Rolls-Royce Canada Ltd.	Willowdale, Ont.
RoIm Canada Inc.	Montréal, Qué.
Rosgol Industries Ltd.	Rexdale, Ont.
Rumble Equipment Ltd.	Concord, Ont.
Scintrex Ltd.	Brampton, Ont.
Sealed Air of Canada Ltd.	Sasktoon, Sask.
Sed Systems Inc.	Concord, Ont.
Sentrol Systems Ltd.	Pointe-Claire, Qué.
Siemens Electric Ltd.	Richmond, B.C.
Sony of Canada Ltd.	Willowdale, Ont.
Spar Aerospace Ltd.	Ste-Anne de Bellevue, Qué. Kanata, Ont.
Spartan Controls Ltd.	Edmonton, Alta.
Sperry Corp. (Computer Systems)	Dorval, Qué. Mississauga, Ont.
Square "D" Canada Ltd.	Mississauga, Ont.
Subtec Ltd.	Ottawa, Ont.
Tech-Rep Electronics Ltd.	St-Laurent, Qué.
Technomarine Inc.	Repentigny, Qué.
Tellabs Communications Canada Ltd.	Mississauga, Ont.
Teltone Ltd.	Toronto, Ont.
Tie-Telecommunications Canada Ltd.	Markham, Ont. Richmond, B.C.
Toshiba of Canada Ltd.	Rexdale, Ont.
Tracan Electronics Corp.	Mississauga, Ont.
Transalta Utilities Corp.	Edmonton, Alta Calgary, Alta.
Tree Island Steel & Wire Inc.	New Westminster, B.C.
Tyler WS Co. of Canada Ltd.	St. Catharines, Ont.
University of British Columbia	Vancouver, B.C.
Valcom Ltd.	Guelph, Ont.
Varah L.A. Ltd.	Edmonton, Alta.
Varian Canada Inc.	Georgetown, Ont.

CANADIAN IMPORTERS (CONTINUED)

<u>Name</u>	<u>Address</u>
Veeco Lambda Inc.	Pointe-Claire, Qué.
Victrix Ltd.	Guelph, Ont.
Vistek Ltd.	Toronto, Ont.
Vokronix Distribution Inc.	Rexdale, Ont.
WR Communication Ltd.	Vancouver, B.C.
Webster Instruments Ltd.	Mississauga, Ont.
Western Research & Development	Calgary, Alta.
Westinghouse Canada Inc. (Electronic Systems Div.)	Burlington, Ont.
Wickman A.C. Ltd.	Toronto, Ont.
Zentronics, Div. of Westburne Industrial Enterprise Ltd.	Brampton, Ont.

FOREIGN EXPORTERS TO CANADA

Major exporters to Canada of power supplies during the period January to December 1985, as shown in this report, are listed below. These exporters accounted for 76 per cent of the total analysed import value. Power supplies exporters are shown in two ranges of unit price: up to \$5 000 and over \$5 000. The exporters' names are shown in descending order of value, although some values are grouped in order to preserve confidentiality.

Unit Price up to \$5 000 :

<u>Name</u>	<u>Address</u>		<u>Value of Imports</u> ((\$000)
Lambda Electronics	Tucson, AZ	United States	1 716
Lorain Products	Lorain, OH	United States)	4 117*
Tie Communications	Kent, WA	United States)	
Ault Inc.	Minneapolis, MN	United States)	
AC/DC Electronics	Oceanside, CA	United States	949
Eldec Corp. PCD	Lynwood, WA	United States)	1 448*
Keltec Florida	Ft. Walton Beach, FL	United States)	
Kepeco Inc.	Flushing, NY	United States)	
Toshiba America Inc.	Armonk, NY	United States)	692*
Venus Scientific Inc.	Farmingdale, NY	United States)	
Burroughs Corp.	Detroit, MI	United States)	640*
Boschert Inc.	Sunnyvale, CA	United States)	
Astec Components Ltd.	Kowloon	Hong Kong)	554*
Astron Corp.	Tustin, CA	United States)	
Power One Inc.	Camarillo, CA	United States	254
Power Products Div. Computer Products Inc.	Pompano Beach, FL	United States)	456*
Astrosystems Inc.	Lake Success, NY	United States)	
Pioneer Magnetics	Santa Monica, CA	United States	173
McGraw-Edison Co., Wagner Div.	Weatherly, PA	United States)	343*
Hyperion Industries Corp.	Watertown, MA	United States)	
NEC Corp.	Tokyo	Japan)	312*
BICC Boschert Ltd.	Kennedy Town	Kong Kong)	
Caribe L.H. Inc.	Cayey	Puerto-Rico	150

*-Aggregated for reasons of confidentiality.

FOREIGN EXPORTERS TO CANADA (CONTINUED)

Unit Price up to \$5 000

<u>Name</u>	<u>Address</u>		<u>Value of Imports</u> <u>(\$000)</u>
Motorola Inc.	Schaumburg, IL	United States)	
Siemens A.G.	Munich	West Germany)	268*
Mitel GmbH	Steinback	West Germany)	
OPT Industries Inc.	Phillipsburg, NJ	United States)	
Power General Corp.	Canton, MA	United States)	<u>499*</u>
Rolm Corp.	Santa Clara, CA	United States)	
Total - Unit Price Up to \$5 000			12 571

Unit Price over \$5 000

International Power Machines Corp.	Mesquite, TX	United States)	
Keltec Florida	Ft. Walton Beach, FL	United States)	1 033*
Elgar Int. Corp.	San Diego, CA	United States)	
Macroamp Inc.	Ukiah, CA	United States)	
Varian Associates Inc.	Synnyvale, CA	United States)	525*
Elox Div., Colt Industries Inc.	Davidson, NC	United States)	
Litton Systems Inc.	Woodland Hills, CA	United States)	
Hyperion Industries Corp.	Watertown, MA	United States)	380*
Rolm Corp.	Santa Clara, CA	United States)	
Total - Unit Price Over \$5 000			1 938

* Aggregated for reasons of confidentiality

Note: The locations indicated for each exporter do not necessarily mean that exports originated from only those locations. In some instances, plants located in other cities may be involved, or the head office only is listed.

CANADIAN MANUFACTURERS

The following lists are taken from two sources: a) the Business Opportunities Sourcing System (BOSS), a computerized data bank established by the federal Department of Regional Industrial Expansion (DRIE) and b) the Canadian Trade Index, published by the Canadian Manufacturers' Association (CMA). These lists may not include all manufacturers of the products in question, as companies must themselves register in BOSS, or, for the Canadian Trade Index, be members of the CMA. In both cases, information of Canadian products manufactured is as supplied by the companies.

BOSS

Canadian companies are arranged in alphabetical order within the following Canadian International Trade Classification (C.I.T.C.) commodity codes.

639-30-20 Power Supply, Communication Equipment

<u>Name</u>	<u>Address</u>
* Alpha Technologies Ltd.	B.C.
Anro Electronic Industries Ltd.	Ont.
BBC Brown Boveri Canada Inc.	Qué.
* Brown Manufacturing Ltd.	Ont.
Canadian Marconi Company	Qué.
E.A. Electric Co. Ltd.	Ont.
Electro Arts Limited	Ont.
Electronic Craftsmen Limited	Ont.
Gentronique Canada (1978) Ltée	Qué.
* Hammond Manufacturing Company Ltd.	Ont.
* Harding Instruments Co. Ltd.	Alta.
Inventor Technology, Div.	
McCrum Holdings	Alta.
KB Electronics Limited	N.S.
Mechron Energy Ltd.	Ont.
Meteor Communications (Canada) Corp.	B.C.
**Murata Erie North America Ltd.	Ont.
Northern Telecom Canada Ltd.	Ont.
Radacs Mfg. Ltd.	Ont.
Rélték Inc.	Ont.
*Richmond Sound Design Ltd.	B.C.
Seam Electronics Inc.	Ont.
**Sotelcom Communications Inc.	Ont.

* Company engaged in export trade

CANADIAN MANUFACTURERS (CONTINUED)

BOSS

639-30-20 Power Supply, Communication Equipment (Cont'd)

* Source Communications	Ont.
* Sperry Inc.	Ont.
* Sperry Inc. - Dorval Operations	Qué.
Tectrol, Inc.	Ont.
* Varian Canada Microwave Div.	Ont.

688-79-49 Power Supply, NES (not elsewhere specified)

* ABS Products & Design Associates	Ont.
* Absopulse Electronics Ltd.	Ont.
Ajax Magnethermic Canada Ltd.	Ont.
Allanson Division of Jannock Ltd.	Ont.
* Alpha Technologies Ltd.	B.C.
* Androtex Limited	Ont.
B.G. Checo International Ltée	Qué.
Baron Manufacturing Company	Alta
* BBC Brown Boveri Canada Inc.	Qué.
Beimler Engineering Ltd.	Ont.
* Berth Engineering Corporation	B.C.
Bison Electronics Limited	Man.
* Bombardier Inc., Rail & Diesel Prod. Div.	Qué.
C-Can Power Systems Inc.	Ont.
Canadian Research Institute	Ont.
Codallex Limited	Qué.
Criterion Instruments Limited	Ont.
* CTS of Canada Limited	Ont.
Electro Arts Limited	Ont.
Exceltronix Components & Computing Inc.	Ont.
* Filtran Ltd.	Ont.
* Hammond Manufacturing Company Ltd.	Ont.
* Harding Instruments Co. Ltd.	Alta.
Hayley Industrial Electronics Ltd.	Alta.
Home Base Inc.	Ont.
* Hovey Industries Ltd.	Ont.
* Hydra-Tech Mfg. Ltd.	B.C.
* Iconopower Limited	Ont.
* Inverpower Controls Ltd.	Ont.
Invertor Technology, Div. McGrum Holdings	Alta.
* KB Electronics Limited	N.S.
Kirby Electric Ltd.	Sask.
* Lenbrook Industries Limited	Ont.

* Company engaged in export trade

CANADIAN MANUFACTURERS (CONTINUED)

BOSS (Cont'd)

688-79-49 Power Supply, NES

<u>Name</u>	<u>Address</u>
Lumacell Inc.	Ont.
Mechron Energy Ltd.	Ont.
Modern Power Conversion Inc.	Ont.
MTD Products Limited	Ont.
Northern Telecom Canada Ltd.	Ont.
Philtex Electronics Ltd.	B.C.
* Pocatec Ltée	Qué.
Pylon Electronic Development Co. Ltd.	Qué.
R.T.S. Electronic Manufacturing Ltd.	Alta.
* Relco	Ont.
Reliance Telecommunications Products Ltd.	Ont.
* Ritz Electronics Limited	Ont.
* Sab Nife Corporation	Ont.
Sola Canada-Unit of General Signal	Ont.
Sparton of Canada Limited	Ont.
Square D Canada Electrical Equipment Inc.	Alta.
Startco Engineering Ltd.	Sask.
* Tektron Equipment Corporation	Ont.
* Thousand Islands Enterprises Ltd.	Ont.
* Tieco	Ont.
United Corrosion Consultants Ltd.	Alta.
Wellsdale Research Limited	Alta.
Wermac Electric Ltd.	Alta.
* Wispurr Cut Diamond Products Ltd.	B.C.
* 54846 Ontario Inc.	Ont.

* Company engaged in export trade

Any enquiries and/or comments regarding the BOSS list should be directed to:

Business Opportunities Sourcing System (ABOS)
Department of Regional Industrial Expansion
235 Queen Street
Ottawa, Ontario
K1A 0H5
Telephone: (613) 954-5031
Telex: 053-4123

CANADIAN TRADE INDEX

Canadian companies are arranged in alphabetical order.

Power Supplies and Systems

<u>Name</u>	<u>Address</u>
* Absopulse Electronics Ltd.	Ont.
Allanson Division of Jannock Limited	Ont.
* BBC Brown Boveri Canada Inc.	Qué.
* BDG Engineering & Mfg. Ltd.	Ont.
* B.E.L-Tronics Limited	Ont.
* BGI/Automatec, Division of BG Checo International Limited	Qué.
* Baknor Industries Ltd.	Ont.
* Beckman Industrial Corp., Electronic Technologies Div.	Ont.
* Beel Electronics Inc.	Qué.
Berth Engineering Corporation	B.C.
Bradley Controls Limited	Ont.
Brintec Corporation, Pyle National of Canada Division	Ont.
* Brown Manufacturing Ltd.	Ont.
CTS of Canada Ltd.	Ont.
Canadian Dynamics Nova Ltd.	B.C.
Canadian Marconi Company	Qué.
CETA Learning Systems	Ont.
Commercial Electronics Installations	Ont.
* Criterion Instruments Ltd.	Ont.
Cyclone Diamond Products Limited	B.C.
E.A. Electric Co. Ltd.	Ont.
Electric Power Equipment Limited	B.C.
Electronic Craftsmen Limited	Ont.
* Eramosa Technology Corporation	Ont.
* Exide Electronics Canada Inc.	Ont.
* Federal Pioneer Limited	Ont.
* Filtran Ltd.	Ont.
* Foxboro Canada Inc.	Qué.
Gen-tec Inc.	Qué.
* Glenayre Electronics Ltd.	B.C.
Hallcraft Electronics Ltd.	Man.
* Hammond Manufacturing Co. Limited	Ont.
Hayley Industrial Electronics Ltd.	Alta.
Intercontinental Electronics (Control Division) Ltd.	B.C.
* Jerrold, Division of General Instrument of Canada Ltd.	Ont.
* KB Electronics, Div. of 508198 Ont. Inc.	Ont.
* KB Electronics Limited	N.S.
Lab-Volt (Québec) Limited	Qué.
Lochhead-Haggerty Engineering & Manufacturing Co. Ltd.	B.C.
Lumaceli Inc, Div. of Square D Co.	Ont.

* Indicates firms engaged in export trade

CANADIAN TRADE INDEX (CONTINUED)

Power Supplies and Systems

<u>Name</u>	<u>Address</u>
McCurdy Radio Industries Limited	Ont.
* Mechtron Energy Ltd.	Ont.
* Modern Power Conversion Inc.	Ont.
Multi-Amp Canada Limited	Ont.
Murata Erie North America Ltd.	Ont.
Noll Manufacturing & Engineering Inc.	Ont.
Patton & Cooke Ltd.	B.C.
Pylon Electronic Development Company Ltd.	Ont.
Radacs Ltd.	Ont.
Reliance Telecommunication Products Ltd.	Ont.
* Ritz Electronics Ltd.	Ont.
SAB NIFE Corporation	Ont.
Siemens Electric Limited	Qué.
Sola Canada, a Unit of General Signal Limited	Ont.
Sparton of Canada Limited	Ont.
Sperry Inc., Systems Management Group	Qué.
Square D Canada	Ont.
* Staticon Ltd.	Ont.
* Tectrol Inc..	Ont.
Thyristor Devices Limited	Ont.
Topping Electronics Ltd.	Ont.
TransCanada TransFormers Limited	Ont.
Valcom Limited	Ont.
Vapor Canada Inc.	Qué.
Varian Canada Inc.	Ont.
Wil-Can Electronics Can. Ltd.	Ont.

* Indicates firms engaged in export trade

Any enquiries and/or comments regarding the Canadian Trade Index list should be directed to:

The Canadian Manufacturers' Association
One Yonge Street
Toronto, Ontario
M5E 1J9
Telephone: (416) 363-7261
Telex: 065-24693

CANADIAN AND FOREIGN TARIFFS

Power supplies included in this analysis were dutiable under the following most commonly applied tariff items.

Tariff Item	Description	Tariff Treatment					
		British Preferential Tariff %	Most Favoured Nation Tariff %	General Tariff %	General Preferential Tariff %	U.K. and Ireland %	
44524-01	Electric apparatus and complete parts, n.o.p.: on and after January 1, 1987	1985	12.2	12.2	30	8	12.2
		1986	11.3	11.3	30	7.5	11.3
			10.3	10.3	30	6.5	10.3
41417-01	Electronic data processing machines and apparatus; peripheral equipment for use therewith including data entry, data preparation and data handling machines and apparatus; accessories and attachments for use therewith; parts of all the foregoing; none of the foregoing to include telephone and telegraph apparatus and parts thereof:	1985	Free	3.9	25	Free	3.9
		1986	Free	3.9	25	Free	3.9
44059-01	Auxiliary power units, when types or sizes not made in Canada and for use in aircraft, aircraft engines, airborne aircraft equipment, or parts of aircraft, aircraft engines, or airborne aircraft equipment	1985	Free	Free	27.5	Free	Free
		1986	Free	Free	27.5	Free	Free
44533-01	Radio and television apparatus and parts thereof, n.o.p.: on and after January 1, 1987	1985	Free	11	25	Free	9.5
		1986	Free	10.2	25	Free	9.5
			Free	9.5	25	Free	9.5

CANADIAN AND FOREIGN TARIFFS (CONTINUED)

Tariff Item	Description	Tariff Treatment				
		British Prefer- ential Tariff	Most Favoured Nation Tariff	General Tariff	General Prefer- ential Tariff	U.K. and Ireland
		%	%	%	%	%
44508-03	Electric telephone apparatus complete parts					
	1985	10.1	17.6	30	10.1	17.6
	1986	10.1	17.6	30	10.1	17.6

N.o.p. - Not otherwise provided for

Tariff Arrangements and Foreign Countries of Export:

Countries which benefit from the Most Favoured Nation tariff treatment: United States, Japan, Puerto Rico, Federal Republic of Germany, Czechoslovakia, Taiwan, Sweden and Switzerland.

Countries which benefit from the Most Favoured Nation tariff treatment or General System of Preference*: Hong Kong, Mexico

Countries which benefit from the Most Favoured Nation tariff treatment or U.K. and Ireland: United Kingdom

Countries which benefit from the Most Favoured Nation treatment or General System of Preference * or British Preferential tariff: Malaysia.

*NOTE: In order to qualify for the General System of Preference, a special certificate of origin is required.

Enquiries concerning tariffs should be directed to the nearest Customs and Excise office or to:

TARIFF PROGRAMS
REVENUE CANADA
CUSTOMS AND EXCISE
OTTAWA, ONTARIO
K1A 0L5
TEL: (613) 996-9474

Foreign Countries

Enquiries concerning tariffs and other government trade regulations in foreign countries should be directed to:

INFO EXPORT
EXTERNAL AFFAIRS
OTTAWA, ONTARIO
K1A 0G2
Tel: (613) 993-6435

RECONCILIATION

The value reported in this import analysis does not correspond to official Statistics Canada figures for various reasons.

Imports of power supplies during the calendar year 1985, as reported on documents analysed in this report, amounted to \$19 124 436. Reconciliation of the two total figures is as follows:

<u>Values Accounted For</u>	<u>Value</u> <u>(\$'000)</u>
Documents referring to products which should have been classified elsewhere	586
Value reported by Statistics Canada but not included in this report (e.g. documents not available for processing and Canadian goods returned)	950
Documents covering individual shipments valued at <u>less</u> than \$7 000 not included in our analysis	8 291
Total values reported in this import analysis	<u>19 124</u>
Total values accounted for as above	28 951
Total values published by Statistics Canada	28 951

DRIE REGIONAL OFFICES

Newfoundland
P.O. Box 8950
Parsons Building
90 O'Leary Avenue
St. John's, Newfoundland
A1B 3R9
Tel: (709) 772-4884

Prince Edward Island
P.O. Box 1115
Confederation Court Mall
134 Kent Street, Suite 400
Charlottetown, Prince Edward Island
C1A 7M8
Tel: (902) 566-7400

Nova Scotia
P.O. Box 940, Station M
1496 Lower Water Street
Halifax, Nova Scotia
B3J 2V9
Tel: (902) 426-2018

New Brunswick
P.O. Box 1210
Assumption Place
770 Main Street
Moncton, New Brunswick
E1C 8P9
Tel: (506) 857-6400

Québec
P.O. Box 247
Tour de la Bourse
800, Place Victoria, Suite 3800
Montréal, Québec
H4Z 1E8
Tel: (514) 283-8185

Ontario
P.O. Box 98
1 First Canadian Place, Suite 4840
Toronto, Ontario
M5X 1B1
Tel: (416) 365-3737

Manitoba
P.O. Box 981
330 Portage Avenue
Room 608
Winnipeg, Manitoba
R3C 2V2
Tel: (204) 949-4090

Saskatchewan
Canada Building
6th Floor, 105-21st Street East
Saskatoon, Saskatchewan
S7K 0B3
Tel: (306) 975-4400

Alberta
Cornerpoint Building
10179 - 105th Street, Suite 505
Edmonton, Alberta
T5J 3S3
Tel: (403) 420-2944

British Columbia
P.O. Box 49178
Bentall Postal Station
Bentall Tower IV
1101 - 1055 Dunsmuir Street
Vancouver, British Columbia
V7X 1K8
Tel: (604) 666-0434

Yukon
Suite 301
108 Lambert Street
Whitehorse, Yukon
Y1A 1Z2
Tel: (403) 668-4655

Northwest Territories
P.O. Bag 6100
Precambrian Building
Yellowknife, Northwest Territories
X1A 1C0
Tel: (403) 920-8571

