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# ADA IN THE WORLD OF ELECTRONICS



This booklet, the fourth edition published by the Canadian Department of Industry, Trade and Commerce, is your ready reference to more than 200 Canadian electronics companies experienced in serving world markets with quality products and services. We know that you will find it of continuing value.

Listings of electronic equipment and systems, components, consumer products and consultant companies include addresses, products and services. A product index shows you exactly where to look for your particular requirements. The booklet also outlines briefly the story of electronics in Canada – its success and growth.

Keep your copy in a handy place and it will serve you well.

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# CANADA IN THE WORLD OF ELECTRONICS

*Canada, Dept. of Industry, Trade and Commerce,  
Electronics Division*

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# record of achievement

On August 10, 1876, Alexander Graham Bell successfully completed the world's first long distance telephone call in the Canadian province of Ontario and Canada was well launched into the world of electronics. From this and other early beginnings, Canadians have never looked back.

As the nation spans 5,200 kilometres (3,220 miles), communications have always presented a tremendous challenge to Canadian engineers and scientists. The skills developed in mastering a wide range of geographical and environmental conditions have resulted in Canada becoming one of the foremost nations in the fields of engineering, science and technology.

Already active in the scientific satellite field, Canada commenced the world's largest and first domestic satellite system in 1972 with the launch-

ing of the Canadian communications satellite Anik I. In 1973, a second satellite, Anik II, was placed in orbit to provide back-up support for Anik I. From a synchronous orbit some 36,000 kilometres (22,300 miles) above the equator, Anik I and II are in direct contact with more than 35 earth stations located across Canada and from the southern border to the far north. These stations augment and extend the existing and extensive microwave system and link the entire country, providing telephone, television and data transmission facilities to the most remote areas.

In the field of metrology, accuracy of length is assuming increasing importance in modern technology. The linear capacity system, a new method of measuring length, has recently been developed in Canada. Length measurements accurate to better than 1

part in  $10^6$ , can be taken in less than a second and are unaffected by fluctuations in supply voltage, humidity, pressure and ambient temperature. The instrument has many applications in the fields of photogrammetry, astronomy, spectroscopy, atomic research and in the machine industry.

These are just a few of the many new and exciting developments now taking place in Canadian electronics. Listed in this publication are a large number of Canadian companies which have contributed to the dynamic growth of Canada's electronics industry with sales estimated at more than \$1,600,000,000 annually. Their products range from small monolithic integrated circuit chips to large complex telecommunications, computer and data transmission equipment and systems.

The major participants in the electronics industry are members of the Electronics Industries Association of Canada. This national trade association not only provides continuity within the industry but acts as a central information source for prospective export customers.

# communications



*Canada's vast communications system includes integrated satellite and microwave networks which, when complete, will cover the entire nation. Shown are a satellite ground relay station and a microwave tower.*

## ground

Communications represents one of the foremost Canadian electronic capabilities. Skills in this field grew from the need to provide a network for broadcast, message and television transmission across the 5,200-kilometre (3,220-mile) expanse of Canada. Today a 27,000-kilometre (17,000-mile) broadband microwave system spans the country through six time zones with spur links to serve the growing requirements of Canada's northland.

The experience gained in the design and installation of Canada's vast transcontinental microwave relay system has been used in the development and installation of similar high performance systems for 20 countries around the world.

A recent Canadian development in microwave is a CCITT compatible heavy route multiplex system having dual low and high density capability. The use of a unique modulation technique eliminates the usual individual transmit and receive units. All channel units are identical. This results in a major reduction in size of spares inventory, costs and maintenance time. With the low density package, it is practical for users to have one multiplex system with as few as eight

channels at several locations, yet with a major installation of up to 1,260 channels at a central toll office.

An innovation in the field of PCM microwave technology is a Canadian system with an integrated multiplex/radio combination designed to serve voice and data communications digitally.

Canadian companies have recently developed VLF, medium and HF communications transmitters which are completely solid-state. These units are finding increasing acceptance in world markets by providing high performance and reliability with virtually trouble-free operation.

To relieve the overcrowded radio spectrum, Canada is leading the way in the use of coaxial cable systems for communications purposes. A long haul digital coaxial underground cable system is being designed. It will extend 565 kilometres (350 miles) by 1976 and will be expanded to 965 kilometres (600 miles) by 1980. For toll-quality voice transmission, the system will use eight-bit PCM while master-group codec will be used to permit transmission of 600 channel master-group signals. TV codec will process video signals for transmission and three levels of digital multiplexers

will combine several low rate digital bit streams into one high speed digital bit stream. Video telephone codec is to be added at a later date.

Today, more than five million people receive their television signals via cable in Canada, a leader in the cable television industry since its inception. Canadian cable companies are also involved in the design, installation and operation of cable systems in Europe and the United States. A single cable used in CATV (community antenna television) distribution has a bandwidth capable of carrying four times as many TV signals as can be received over-the-air in the VHF spectrum. Existing television sets are used for multi-channel reception through installation of converters in the home units.

Since cable systems have an inherent two-way capability, the technology already exists for such applications as residential electricity, gas, water and home heating oil meter reading; information retrieval; airline, sporting event and theatre ticket reservation sales; and teleshopping with comparative purchasing data. In Canada, cable television is already used extensively and effectively in education and training.

## space

Canada's contributions and achievements in the scientific satellite field are internationally known. Through the Alouette and ISIS scientific satellite programs valuable experience has been gained enabling the country's scientific community to undertake the Communications Technology Satellite (CTS) which is to be launched in 1975. Part of a joint project with NASA and ESRO, the CTS is a high powered, synchronous orbit satellite with an operation life expectancy of two years minimum. A special feature of the Canadian-built satellite is a flexible solar cell array which will be extended on command once the satellite is on-station and three-axis stabilized. The array consists of two sails, each approximately six metres (20 feet) by 1.3 metres (50 inches). A number of scientific experiments are to be carried out over the two-year period.

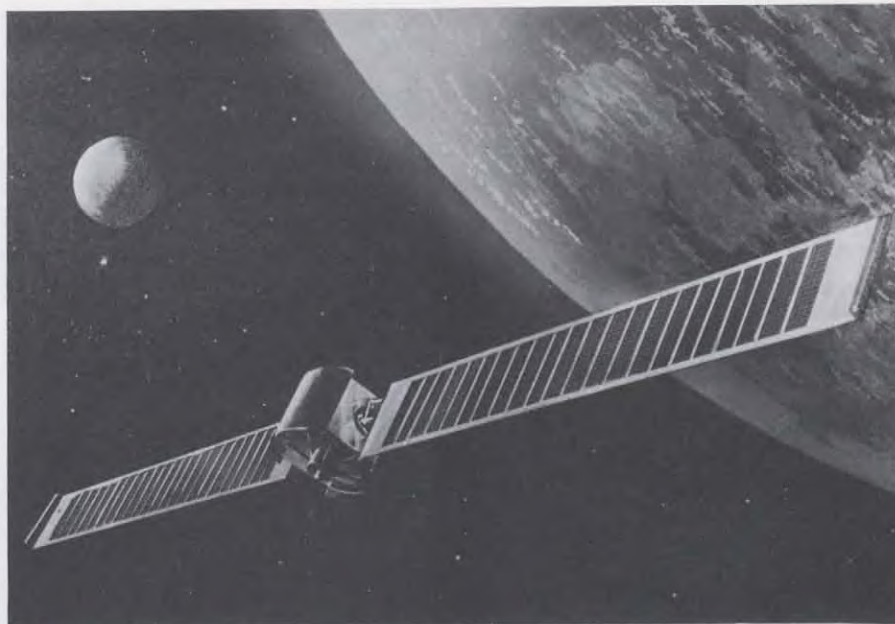
The new Intelsat IV global communications satellite, now in position over the Pacific Ocean, has a Canadian-designed and built repeater system on board.

Scientific communities throughout the world are focusing more of their attention on the field of radio astronomy to satisfy mankind's insatiable curiosity to find out what there is in space. While Canada's large 45-metre (150-foot) radio telescope at Lake Traverse, Ontario, has already been in operation several years, work has been going on in many other areas.

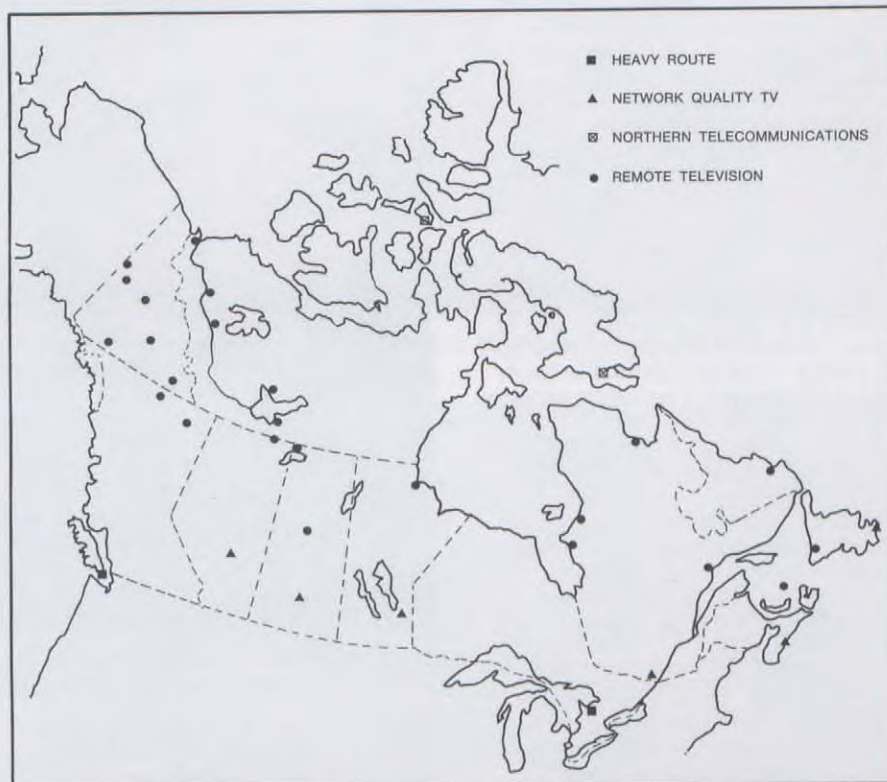
A radio telescope antenna of high accuracy has recently been completed for installation in Western Canada. The system is a Cassegrain reflector design with the main reflector having a diameter of 4.5 metres (15 feet). Both the main and subreflectors have extremely high contour accuracy since the system is intended for use at frequencies as high as 150 GHz. The radio telescope is equipped with an optical telescope with special attachments for closed circuit television to provide visual reference to the point in the sky being scanned by the radio telescope. One of the system's first applications will be to look for organic molecules in inter-stellar space.

With the launching of Anik I in late 1972 followed by Anik II in 1973, Canada began operation of the world's largest domestic satellite system. Each satellite has facilities for relaying 10 color television channels or up to 9,600 telephone circuits and an anticipated life of seven years. All analysis and command data for establishing the initial positioning and maintaining the satellites are carried out in the Satellite Control Centre in Ottawa, the nation's capital. The actual tracking, transmission and reception of data are accomplished at the main earth station located at Allan Park, Ontario.

The satellites are positioned in synchronous orbit 36,000 kilometres



Canadian-designed and developed communications technology satellite will carry out high-frequency experiments to gain information for future space communications.



Map of Canada shows locations of the initial ground relay stations for the Canadian domestic satellite communications network — the world's first (a total of 37 stations were operating by December, 1973).

(22,300 miles) above the equator and are maintained within  $\pm 64$  kilometres (40 miles) of the assigned locations. Combined with the ground stations located throughout Canada, they provide a communications system

covering approximately 10 million square kilometres of Canadian territory, supplementing and extending the existing TV, radio and communications networks.

# industrial and commercial electronics

As Canada has become increasingly industrialized, it has also become more and more dependent on the electronics industry to provide some of the sinews for its industrial growth. Electronics production equipment and industrial controls, designed and produced by Canadians, are being used in a growing number of industries not only in Canada but in many nations around the world.

An example of Canadian expertise is the Transversely Excited Atmospheric (TEA) gas laser, widely regarded as having the greatest potential as a versatile industrial tool of any laser. It is relatively simple, low in cost and comparatively safe. Knowledgeable forecasters predict its use in such applications as industrial materials processing, information processing, engineering construction and environmental pollution detection and measurement. Other potential applications include metal cutting, mine drilling and thermonuclear power experiments.

Air traffic densities, generated by the tremendous growth in domestic and international air travel, are placing increasing demands on communications, navigation and landing systems, and air traffic control personnel. A new generation of solid-state VOR transmitters has been developed in Canada. A parallel development has been the design of a Doppler VOR (DVOR) system for use in unfavourable terrains which are liable to introduce azimuth errors. Already under development is a Precision Doppler VOR which will provide even greater accuracy.

In the field of industrial controls, Canadians are making increased use of digital computers along with developing a wide range of compatible hardware including more accurate sensors with higher reliability, wider ranges and faster response times. Specialized dedicated systems requiring unique software constitute a Canadian strength.

Nuclear magnetic resonance is one of the latest flow measuring techniques being used in Canadian industry. Usable with any liquid, it involves the combination of an RF field with a magnetic field to cause precession of nuclei that are magnetically polarized, such as hydrogen.

A recent development in Canadian controllers is the programmable device. Functions can be modified by changing programs and rewiring or replacing memories. Multiplexing techniques are also finding increased use in Canadian industrial control systems where multi-point measurements are required.

Display units including CRT for industrial control systems are becoming more sophisticated performing a wide range of functions on push-button



*Canadian National Research Council's giant radio telescope at Lake Traverse, Algonquin Provincial Park, Ontario, has a 150-foot (45-metre) diameter parabolic reflector.*

command such as digital display of variables and graphical displays showing trends in process-variable levels with selection scales and time periods. Digital display media such as light emitting diodes, liquid-crystal technology and plasma display panels are also developing rapidly.

In Canada, many electronic equipment manufacturers are turning to computerized automatic test systems. Most systems use a mini-computer with in-house developed logic circuitry and software. Complex tests are carried

out automatically in seconds with a print out of type and location of any faults.

Canada is also moving rapidly into the field of postal mechanization. In the nation's capital, a \$4.5 million automatic postal handling system is currently being installed in the main post office. The complete system includes indexation desks, presort channels and output stackers, index-reading letter sorting machines and a computer with a 64K memory and digital interface.



# biomedical electronics

Canadian firms are producing a wide variety of biomedical electronic equipment including scintillation counters for use in nuclear medicine, cardiac monitors, EKG and EEG units, special miniaturized implantation units and hospital and home use dialysis machines.

The University of Toronto's Institute of Biomedical Electronics and Engineering is Canada's oldest established and one of the most prolific academic groups in the field today. Among the many instruments under development are a blood flow meter that measures flow using the Faraday effect without cutting into the arteries and a vector

or three-dimensional cardiogram for use with children.

Toronto's Hospital for Sick Children, with a world-wide reputation as an innovator in the treatment of children's disease and ailments, has developed a sophisticated, safe, self-testing patient monitoring system consisting of nine basic modules. Electromagnetic coupling is used exclusively to ensure effective patient isolation.

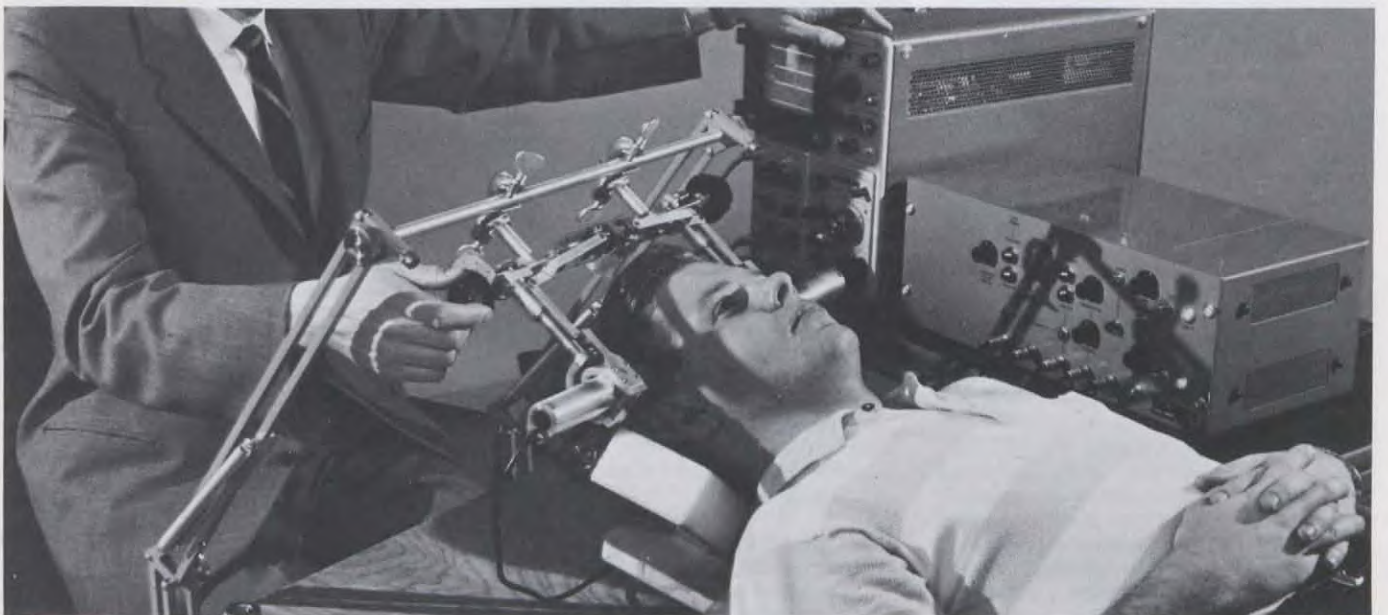
With the development of solid-state microminiaturization techniques, complete telemetry systems have been designed for use in intensive care units for critically ill patients. These indi-

vidual bedside monitors can be connected into the central station monitoring system of the hospital.

Canadian hospitals are now using computers along with other electronic instrumentation to provide a high degree of automation to the gathering and handling of patient data. A typical system consists of a variety of analog conditions for physiological transducers, reporting patient data to a multiplexed analog-to-digital converter. Patient data may then be connected to CRT displays, paper or magnetic tape recorders, and alarm systems.



*Procedure and resuscitation table maintains an infant's body temperature and permits easy access to the child during a blood transfusion.*



*Developed by the National Research Council of Canada, this alignment device permits new and more accurate techniques for diagnosing certain brain disorders through the use of ultrasonics.*

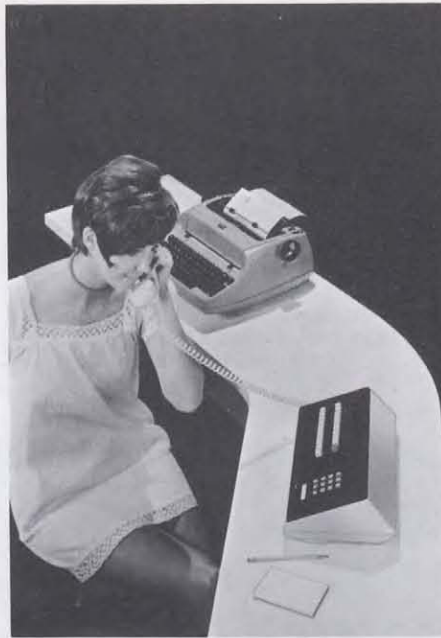
# telephones and data transmission

Canada has the world's sixth largest telephone population with almost one telephone for every two persons. There are 45.2 telephones for every 100 persons or more than 10 million telephones in Canada and Canadians are among the world's greatest telephone users.

Stored program telephone exchanges have been developed in Canada using electronic switching that will handle 20,000 lines and up to 36,000 calls an hour. These are specifically designed for medium-sized communities. In addition to providing a wider range of services such as conference calling and automatic dialling, the equipment takes up less space, operates faster and costs about the same as present systems.

For smaller communities, electronic stored programmed telephone switching systems have been developed, suitable for installation in central offices with up to 2,400 lines. The programmed computer control uses the latest in MSI and LSI devices.

To meet the increased demand for data transmission, multi-channel data terminals (multi-channel telegraph equipment) have been developed. Voice frequency channel telegraph equipment has also been developed which meets CCITT standards. Units are small, compact and available for a variety of operating conditions and environments.



Canadian-developed electronic private automatic branch exchange (PABX) uses pulse amplitude modulation method of time-division multiplexing and has solid-state reliability and complete flexibility of services in the up-to-80 line class.

Automatic diallers for Telex circuits — either single or multi-number — are being used to save time in transmitting messages to frequently called numbers. The Canadian electronics



Newly developed telephone headset, weighing less than a ballpoint pen, features full-time background noise cancellation and replaces bulky headband sets in telephone, air traffic control and many other applications.

industry is also using more sophisticated techniques in the development of time division multiplex equipment and systems.

# geophysical survey electronics

Canada is a world leader in mineral production. In the beginning of the 1970s, total production of gas, oil and minerals exceeded \$6 billion with minerals alone reaching \$4 billion.

These figures can be attributed directly to the skill and technological development of the Canadian geophysical survey industry. The vast distances of Canada and the many differing terrains over which surveys must be carried out have posed serious challenges to the industry. As a result, techniques and equipment have been developed to put Canada in the forefront — today 80 per cent of the world's geophysical surveying is done by Canadians with Canadian equipment.

Aerial survey has become a complete necessity to cover efficiently the broad and rugged areas in which minerals may be found. Airborne electromagnetic systems, magnetometers, radiometric systems and aerial photography have been combined to form a comprehensive system which can spot potential mineral-bearing areas and pinpoint them for future detailed

ground survey. Both fixed-wing aircraft and helicopters are used, fitted with highly accurate, specially designed equipment.

Once the aerial surveys have spotted and pinpointed a possible mineral body, the ground survey crews take over to detail the type, extent and economic feasibility of the find. Again, highly sophisticated Canadian-designed and built electronic geophysical instruments are put to use — sturdy to meet the rough demands of terrain and operation; accurate to give the precise information required. They include instruments for magnetics, radiometrics, electromagnetics, seismic survey and drill hole logging and have proved their reliability under such differing conditions as Canada's frozen northland and Australia's desert outback.

The Canadian geophysical survey industry, backed by its broad experience at home and abroad, has built an enviable reputation both in the air and on the ground and is serving clients around the world.



Helicopter-borne aerial geophysical electromagnetic survey equipment—one reason why Canada leads the world in this field.

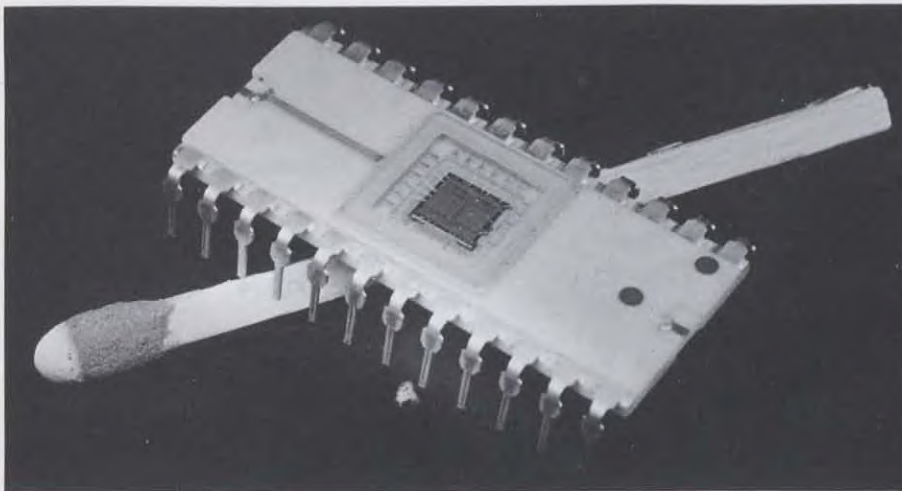


Canadian-designed and manufactured ground geophysical survey equipment, rugged yet accurate, can be used under any environmental condition.

## components



Light reflecting display components find applications in industry, transportation, financial houses, traffic displays and outdoor advertising. The electromagnetic principle of operation eliminates light bulbs resulting in very low power requirements and long life. Inherent memory retains the data displayed with ZERO POWER.



State-of-the-art MOS, LSI memory products such as the 2048 bit programmable ROM, shown compared with a common kitchen match, are widely accepted by the computer, telecommunications and data communications markets.

Electronic components are the bases of successful electronics equipment of all types — products as diverse as television, radio, radar, computers, microwave and avionics. The Canadian components industry is constantly striving to lower costs, improve quality and develop new and better products to meet the design engineer's needs.

Canadian components are making a valuable contribution to the United States Apollo spacecraft and can now be found on the moon. In addition, they perform major functions aboard Canada's own orbiting research satellites.

At the heart of electronics equipment are the active elements — vacuum tubes or solid-state devices. Both are turned out in high volume in Canada on automated production and test lines, as are all other components associated with them.

Canadian resistor manufacturing, using the latest techniques and materials, covers a full range of carbon composition, precision film wire wound resistors and potentiometers. Capacitor capabilities include paper, ceramic, electrolytic, tantalum, mica and air types. Interconnection material is readily available — printed circuits, hookup wire, solder and connectors as well as discrete components such as inductors, transformers, flybacks, yokes, delay lines and switches.

Tremendous possibilities are being opened up in miniature design through development of the integrated circuit. Rapid progress and continuing research are leading to smaller and smaller miniaturized circuits for more compact, sophisticated electronics equipment.

Industrial electronic equipment uses a wide variety of specialized components including such electro-mech-

anical devices as meters and motors, servos and switches, waveguides and antennas, crystals and filters, batteries and relays, seals and sockets, klystrons and magnetrons. Canada makes them all.

High reliability of such components for military projects calls for their qualification to military specifications. The Canadian industry works to the high quality MIL Standards which are known around the world and are finding increasing use in industrial electronics as well. A more recent trend is toward designing for IEC specifications to further intercontinental trade.

Even higher reliability is required for manned space exploration electronics. Canadian manufacturing techniques and traceability of all materials ensures top quality to meet rigid specifications. At times the testing and documentation necessary can equal the manufacturing costs.

# consumer products



Modern styling for modern use — television sets developed in Canada.

With one of the highest standards of living in the world, the Canadian consumer has encouraged the growth and development of an outstanding consumer electronics industry. Since 1945 this industry has established its position as one of the important secondary industries in Canada and, over the years, has shown high innovative and design capability. Today it can offer a complete range of consumer electronic products for the world markets.

Canadian-designed and engineered color and monochrome television receivers, stereos, home entertainment centers, and other consumer products, are finding ready acceptance both in Canada and abroad. One of the outstanding features of these Canadian products has been the integration of cabinets — crafted from native hardwoods and veneers — with space-age electronic interiors, using the latest developments in transistorized and integrated circuit design.

Canadian manufacturers have also recognized that many countries in the world are developing their own consumer electronics industries. The Canadian industry has the necessary experience, engineering capability and interest in the needs of other countries to provide advice and assistance to foreign manufacturers. **The industry can also supply kits of component parts for local assembly where required.**

**All Canadian products have been designed and engineered to rigid specifications in modern, efficient plants employing the latest production and quality control techniques.**



Canadian designed musical amplifier systems for professional and amateur musicians have received world acclaim.



Distinctive design and warm tones are hallmarks of Canadian stereo sets.

# looking to the future

The Canadian electronics industry is continually working in the present for the future. Its products more than meet the stringent demands of a highly competitive market. Through research and development programs the industry is constantly reviewing and renewing its endeavors to maintain high quality standards and keep abreast of world developments.

The foregoing does not pretend to be the complete story of the industry in Canada but is rather a glimpse into some of Canada's many and varied capabilities in the widening world of electronics.



canadian  
companies  
supplying

electronics equipment and systems,  
components, consumer products  
and consultant services

## electronics equipment and systems section

### **ACR INDUSTRIAL SERVICES LTD.**

813 Consol Avenue  
Winnipeg 13, Manitoba, Canada  
Tel: (204) 334-7879

**Products:** geiger and scintillation counters for geophysical exploration.

### **ACME DEVICES INC.**

9615 Papineau, Suite 200  
Montreal 359, Quebec, Canada  
Tel: (514) 384-8028

**Products:** dial access paging control terminals for city-wide and in-plant radio paging services. Firm provides engineering backup at time of installation.

### **AINSLIE ANTENNA CO. LTD.**

Industrial Boulevard  
St. Jerome, Quebec, Canada  
Tel: (514) 438-3561  
TWX: 610-421-3572

**Products:** microwave communications antenna systems; microwave and UHF antennas; rectangular and circular waveguide transmission line components; flexible waveguide coaxial transmission line systems; waveguide and coaxial components; radar antennas; antenna engineering services.

### **AIRCRAFT APPLIANCES & EQUIPMENT LIMITED**

152 East Drive  
Bramalea, Ontario, Canada  
Tel: (416) 459-0920  
Telex: 069-7540  
TWX: 610-492-4396

**Products:** tachometer generators; voltage regulators; liquid level sensors; auxiliary power units, gasoline engine and diesel engine driven generator sets to 30 kW; solid-state sign flashers; synchronous motors.

### **ANACONDA ELECTRONICS LTD.**

1915 Stainsbury Avenue  
Vancouver 12, British Columbia, Canada  
Tel: (604) 876-6213  
Telex: 04-55490

**Products:** cable television equipment including head-end processors; trunk and distribution amplifiers; indoor and outdoor splitters and couplers; customer service devices; terminators and connectors; traps and filters; consulting service on cable television systems.

### **ANALOG DIGITAL RESEARCH LTD.**

777 Warden Avenue  
Scarborough, Ontario, Canada  
Tel: (416) 755-9208

**Products:** digital frequency counters; VLF, HF, VHF, UHF, digital timers; prescalers; automated test systems; non-destructive test equipment.

### **ANATEK ELECTRONICS LTD.**

1820 Pandora Street  
Vancouver, British Columbia, Canada  
Tel: (604) 253-7817  
TWX: 610-929-3059

**Products:** power supplies; educational electronics logic trainer.

### **ANDREW ANTENNA COMPANY LIMITED**

606 Beech Street  
Whitby, Ontario, Canada  
Tel: (416) 668-3348  
Telex: 069-81269  
Cable: ANDCORP WHITBY

**Products:** microwave antennas for all commercial and military bands both standard and high performance; satellite communication antennas, ground, for both synchronous and non-synchronous satellites; coaxial Heliwave transmission line, air dielectric and foam dielectric; Heliwave elliptical waveguide for frequencies from 1.7 GHz to 13.2 GHz; rigid coaxial transmission lines and waveguides; air pressurizing equipment and accessories; mechanical type transportable masts; fixed station antennas for VHF and UHF; scatter propagation antennas; military antennas and transmission lines both tactical and strategic.

### **ASHMAN INDUSTRIES (1966) LTD.**

Brock Road Greenville  
Dundas, Ontario, Canada  
Tel: (416) 628-6371

**Products:** custom-built electronic and electric testing equipment for schools; power supplies for schools, laboratories and industries; audio-visual education equipment and systems. Design, engineering, manufacturing facilities.

### **ASSEMBLY ELECTRONICS**

8529 Stanley Street  
Niagara Falls, Ontario, Canada  
Tel: (416) 345-2124

**Products:** strobe warning systems.

### **AUSTIN INSULATOR DIVISION Decca Radar Canada (1967) Limited**

23 Six Point Road  
Toronto, Ontario M8Z 2X1, Canada  
Tel: (416) 239-1161  
Telex: 02-2098  
Cable: DECRADAR TORONTO

**Products:** antenna mast and tower lighting transformers; tower base insulators and tower guy strain insulators.

### **AUTOMATEC INC.**

5845 Couture Boulevard  
Montreal 458, Quebec, Canada  
Tel: (514) 324-3200  
Telex: 01-20117  
Cable: GIRBED MONTREAL

**Products:** solid-state annunciators and alarm systems; solid-state tele-transmission systems; solid-state power supplies; solid-state control equipment and systems for: communications, machine tool control, process control, general industrial controls, remote controls, traffic controls systems; data acquisition and control systems; digital clocks, programmers and event recorders; simulators and logic labs for education; electronic data processing equipment and systems; electro-optical and infrared equipment; air and meter pollution detection systems; monitoring and supervisory control; multiplex equipment; meteorology communications; postal automation systems; monitoring and survey; voltage regulators; static inverters and connectors, up to 1,200 kVA.

### **AUTOMATIC ELECTRONIC SYSTEMS INCORPORATED**

5455 Paré Street  
Montreal 309, Quebec, Canada  
Tel: (514) 735-6581  
Telex: 01-20776

**Products:** microprocessors; time division multiplexers; alarm and control systems; tele-protection systems for protective relaying; data acquisition systems; remote and supervisory control systems; tele-multiplexers.

### **AUTO-VOX INC.**

485 Boulevard Langelier  
Quebec 2, Quebec, Canada  
Tel: (418) 529-9271

**Products:** intercom systems; public address systems; telephone equipment (PAX).

**AVIATION ELECTRIC LTD.**

P.O. Box 2140  
200 Laurentien Boulevard  
St. Laurent, Montreal 379, Quebec  
Canada  
Tel: (514) 744-2811  
Telex: 05-267659  
Cable: AVIATION-MONTREAL

**Products:** land navigation systems; vehicle position reporting systems; ground support equipment; gas turbine fuel control systems; electrical, fuel, hydraulic and special test stands; mechanical analog computers; aircraft instruments and flight system components; repair and overhaul of aircraft instruments, accessories and avionics; electrical connectors.

**BACH-SIMPSON LIMITED**

1255 Brydges Street  
London 31, Ontario, Canada  
Tel: (519) 451-9490  
Telex: 024-843  
Cable: WILBAC

**Products:** panel meters; control instruments; shunts and current transformers; portable electrical and electronic test equipment; electro-mechanical counters; flame photometers.

**BAILEY METER COMPANY LIMITED**

205 Brunswick Boulevard  
Pointe Claire 730, Quebec, Canada  
Tel: (514) 697-6770  
Telex: 05-821526  
Cable: BAILYCANADA

**Products:** pneumatic and electronic systems, computers and instruments for power and process control consisting of: electronic computers; analog and digital data processing; building management systems; mechanical, electric or pneumatic gauges, meters, indicators, pyrometers, regulators, recorders and alarms.

**BARRINGER RESEARCH LIMITED**

304 Carlingview Drive  
Metropolitan Toronto  
Rexdale, Ontario M9W 5G2, Canada  
Tel: (416) 677-2491  
Telex: 06-968743  
Cable: BARESEARCH TORONTO

**Products:** exploration products: geophysical (magnetometers, EM); airborne and ground instruments and geochemical systems. Services: program participation and management — consult-

ing and contracting — laboratory analyses. Pollution products: ground and airborne pollution detection instruments and heavy water loss detectors. Services: ground and airborne pollution monitoring.

**BARVIC AUDIO SERVICES LTD.**

1360 Hornby Street  
Vancouver 1, British Columbia, Canada  
Tel: (604) 685-6245  
Cable: BARVIC

**Products:** audio amplifiers; public address systems; low voltage control systems; electronic educational and time recording equipment; medical and hospital annunciators and intercoms.

**BAYLY ENGINEERING LIMITED**

120 Hunt Street  
Ajax, Ontario, Canada  
Tel: (416) 925-2126  
Telex: 06-981293

**Products:** selective signalling systems; railway despatchers' communication equipment; program amplifiers; program channels; telephone equipment; remote control system; RF power meters.

**BEACONING, OPTICAL & PRECISION MATERIALS CO. LTD.**

P.O. Box 88  
32 Brome, Place Bonaventure  
Montreal 114, Quebec, Canada  
Tel: (514) 866-8395  
Telex: 05-24893  
TWX: 610-532-6561  
Cable: BOPHAR

**Products:** UHF communications equipment for mobile or ground use; airborne searchlight systems; ancillary radar equipment; remote control systems; sonar equipment.

**BEAMA (1969) LTD.**

5 Kenhar Drive  
Weston, Ontario, Canada  
Tel: (416) 749-3074

**Products:** intercommunication systems and equipment for apartments, industrial buildings, institutions and schools; paging systems.

**BEDARD-GIRARD LTD.**

110 Cremazie West  
Montreal 351, Quebec, Canada  
Tel: (514) 382-3030  
Telex: 05-25142  
Cable: GIRBED MONTREAL

**Products:** relay annunciator and alarm systems; static power rectifiers; electronic governors for hydraulic turbines; static power converters and supplies; railway signalling systems and equipment; subway controls and special equipment such as automatic tunnel cleaning vehicles, gates; special equipment for automated operations.

**BEEL CONTROLS LIMITED**

P.O. Box 2059, Dorval Station  
Dorval 780, Quebec, Canada  
Tel: (514) 735-6177

**Products:** rectifier power supplies; DC SCR variable speed drives; industrial control systems.

**BINARY THREE LIMITED**

102 Wilson Crescent  
Saskatoon, Saskatchewan, Canada  
Tel: (306) 653-2205

**Products:** three-channel digital programmer with audio and accompanying digital track recorded in compact cassette format, used to control up to three slide projectors but signal can be used to control any electronic device. Simple punched tape programmer for use in changing slide projectors of manually controlled shows.

**BRISTOL AEROSPACE LIMITED**

P.O. Box 874  
Winnipeg, Manitoba, Canada  
Tel: (204) 775-8331  
Telex: 03-5587  
TWX: 610-671-3598  
Cable: BRISAIRCO

**Products:** rocket telemetry and control systems (for scientific soundings and meteorological data acquisition) — VHF telemetry transmitters; voltage controlled subcarrier oscillators; voltage regulators; IRIG standard commutators; magnetometers; aspect measuring systems; vehicle telemetry antennas; electronic timers. Data acquisition systems (pollution, meteorology, hydrology, oceanography, etc.); encoders and decoders; teletype formatters; remote and master control stations (manual and automatic); A-D and D-A converters; modems (RF or hard line); data



processing. Satellite telemetry equipment — PCM encoders and decoders; switching units. Heavy machinery diagnostic telemetry (turbines, generators, etc.) — analog and digital systems and components.

**CAE ELECTRONICS LTD.**

P.O. Box 1800, St. Laurent  
Montreal 379, Quebec, Canada  
Tel: (514) 341-6780  
Telex: 01-20708  
TWX: 610-422-3063  
Cable CAEIND

**Products:** flight, tactical and weapons simulators; solid-state telecommunications equipment and systems; industrial monitoring and control systems; portable and mobile data terminals; electronic volume measuring devices; portable grain temperature probes and moisture measuring devices; airborne magnetic detection systems; visual display and tracking systems; weather satellite photo receivers; field maintenance, repair and overhaul, test and calibration services and facilities.

**CETA LIMITED**

452 Kraft Road  
Fort Erie, Ontario, Canada  
Tel: (416) 871-4260  
Cable: CETACAN

**Products:** electronics and electricity learning systems (experimental breadboarding apparatus); power supplies; laboratory equipment.

**COPAQ**

7903 20th Avenue  
St. Michel, Montreal 456, Quebec  
Canada  
Tel: (514) 728-3345

**Products:** design and development of sophisticated scientific and research instruments.

**C-TECH LIMITED**

Montreal Road  
Cornwall, Ontario, Canada  
Tel: (613) 933-7970  
Telex: 0181-538

**Products:** echo sounder and sonar transducers; electronic solid-state switches; digitizers; echo sounder and sonar systems engineering.

**CTS OF CANADA LIMITED**

P.O. Box 280  
80 Thomas Street  
Streetsville, Ontario, Canada  
Tel: (416) 826-1141  
Cable: INDELEC

**Products:** static inverters; uninterruptible power supply systems including start-up assistance; DC-DC (static) converters; static frequency converters; battery chargers; rectifier-power supplies.

**CANADIAN ADMIRAL CORPORATION LTD.**

501 Lakeshore Road East  
Port Credit, Ontario L5G 4M5, Canada  
Tel: (416) 278-5561  
Telex: 06-961138

**Products:** nuclear instrumentation; gamma radiation survey meters; dosimeter chargers ionization chamber detectors; radiac calibrators; power supplies.

**CANADIAN BRIDGE DIVISION  
Hawker Industries Ltd.**

1219 Walker Road  
Windsor, Ontario, Canada  
Tel: (519) 256-2661  
Cable: CANBRIDGE

**Products:** radio, TV, microwave masts and towers; electronics structures; transmission towers, poles and substation structures.

**CANADIAN GENERAL ELECTRIC COMPANY LIMITED**

940 Lansdowne Avenue  
Toronto 170, Ontario, Canada  
Tel: (416) 534-6511  
Telex: 02-2057

**Products:** traffic controls and controllers; traffic signals and lights; complete traffic control systems.

**CANADIAN GENERAL ELECTRIC COMPANY LIMITED**

100 Wingold Avenue  
Toronto 395, Ontario, Canada  
Tel: (416) 789-3281  
Telex: 06-219714

**Products:** television broadcast equipment; mobile radio communications equipment.

**CANADIAN GENERAL ELECTRIC COMPANY LIMITED**

107 Park Street North  
Peterborough, Ontario K9J 3V6, Canada  
Tel: (705) 742-7711  
Telex: 02-9826

**Products:** static power conversion equipment; control and regulators for DC or variable frequency AC drive systems; static digital logic systems; design and manufacture of control instrumentation of nuclear power plants.

**CANADIAN MARCONI COMPANY**

2442 Trenton Avenue  
Montreal 301, Quebec, Canada  
Tel: (514) 343-3411  
Telex: 01-2260  
TWX: 610-421-3564  
Cable: ARCON MONTREAL

**Products:** full range of fixed, mobile and portable radio communications equipment in HF, SSB, VHF-FM and UHF-FM; marine radar and communications; tactical radio relay; communications system engineering; airborne doppler sensors, computers and indicators for navigational and tactical use on both fixed and rotary wing aircraft; airborne OMEGA receivers; area navigation systems; satellite navigation receivers; specialized power supplies; specialized servo amplifiers, BITE failure indicators.

**CANADIAN MOTOROLA ELECTRONICS COMPANY**

3125 Steeles Avenue East  
Willowdale 425, Ontario, Canada  
Tel: (416) 499-1441  
Telex: 02-29944  
Cable: MOTOROLA

**Products:** VHF and UHF mobile radio products including base, mobile, portable and paging equipment and accessories; VHF and UHF radio relay products including point-to-point multi-channel equipment and accessories.

**CANADIAN RESEARCH INSTITUTE  
Division of Criterion Instruments Limited**

85 Curlew Drive  
Don Mills, Ontario, Canada  
Tel: (416) 445-6363

**Products:** power supplies and inverters; test equipment, instruments and scientific apparatus; pollution test equipment (air, water); automatic production test sets for electronic and electrical devices,

## Electronics Equipment and Systems Section (Con't.)

motors, etc.; medical electronic instruments; computer interfacing; panel meters; contactless contact meters; precision portable meters; school and educational instrumentation; insulation resistance and breakdown testers; high voltage test sets; electrostatic high voltage generators; geophysical instruments; pH meters; colorimeters; Wheatstone and Kelvin bridges; decade boxes; megohmmeters; wire testing equipment; conductivity bridges; power distribution test sets and fault locators; hospital floor conductivity test sets. Services — instrumentation R and D; test and calibration services and facilities; printed circuit design.

### **CANADIAN SOUND AND SIGNAL DIVISION** **ESB Canada Limited**

2220 Midland Avenue  
Scarborough, Ontario, Canada  
Tel: (416) 291-8807  
Telex: 02-96152

**Products:** fire alarm control panels; apartment intercom systems.

### **CENTRAL DYNAMICS LTD.**

147 Hymus Boulevard  
Pointe Claire, Quebec, Canada  
Tel: (514) 697-0811  
TWX: 610-422-3906

**Products:** video terminal equipment systems for broadcasting, ETV, CCTV installations; video, pulse, audio switching for studio and master control with associated amplifiers and peripheral equipment; automatic programmers; video tape editors; supervisory control and telemetry systems; industrial monitoring and data logging; electronic information display systems.

### **CHALLENGER ELECTRONICS** **Division of Challenger Equipment Ltd.**

P.O. Box 2010  
North Burnaby, British Columbia  
Canada  
Tel: (604) 291-2246  
Telex: 04-507522  
TWX: 610-929-2042

**Products:** tone signalling encoders and decoders; single-tone, two-tone sequential or simultaneous, dual tone multi-frequency; digital decoders; voltage regulators.

### **CHECK SECURITY SYSTEMS LTD.**

Unit 11, 80 Galaxy Boulevard  
Rexdale 605, Ontario, Canada  
Tel: (416) 677-6430

**Products:** fire alarms; burglar alarms; annunciators; proprietary security systems.

### **COLLINS RADIO COMPANY OF CANADA LIMITED**

150 Bartley Drive  
Toronto, Ontario M4A 1C7, Canada  
Tel: (416) 757-1101  
Telex: 02-21130  
TWX: 610-492-1375  
Cable: COLINRAD TORONTO

**Products:** airborne radio communications and navigation equipment; airborne, land mobile and fixed base SSB communications equipment; portable manpack and hand-held UHF transceivers; microwave and multiplex equipment; high power short wave broadcast transmitters; maritime HF SSB transceivers with automatic antenna couplers.

### **COLUMBIA GEOPHYSICAL SUPPLIES LTD.**

4247 East Hastings Street  
Burnaby 2, British Columbia, Canada  
Tel: (604) 291-1713

**Products:** geophysical equipment; VLF electro-magnetic, induced polarization equipment; magnetometers; SP equipment.

### **COMPUTING DEVICES OF CANADA LIMITED**

P.O. Box 8508  
Ottawa, Ontario K1G 3M9, Canada  
Tel: (613) 829-1800  
Telex: 053-4139  
TWX: 610-563-1632  
Cable: COMDEVCAN OTTAWA

**Products:** air and marine navigation systems and displays; oceanics, photo-optical, telecommunications, industrial and scientific systems design; sensor data processing; artillery and other specialized computers; air traffic control displays; data communication test equipment; thrust measuring of jet engines; survey and exploration; field engineering and maintenance services.

### **CONSOLIDATED COMPUTER INC.**

50 Gervais Drive  
Don Mills, Ontario, Canada  
Tel: (416) 449-1120  
TWX: 610-492-1355

**Products:** KEY-EDIT multi-station data preparation system replacing keypunch and key-to-tape systems.

### **CONUCLEAR LTD.**

P.O. Box 11055, Station H  
Ottawa, Ontario K2H 7T8, Canada  
Tel: (613) 592-1411  
Cable: CONUCLEAR

**Products:** electronic equipment for radiation measurement; nuclear instrument modules for research and systems for nuclear medical applications.

### **CRESCENT CONTROLS LTD.**

2960 West 4th Avenue  
Vancouver 8, British Columbia, Canada  
Tel: (604) 732-7461  
Telex: 04-508538

**Products:** industrial process control equipment and systems; multi-point supervisory and alarm systems; supervisory control equipment and systems including pulse width modulation, audio tone signalling, time multiplexed signalling and computer based time multiplexed signalling.

### **CRONE GEOPHYSICS LIMITED**

3607 Wolfedale Road  
Mississauga, Ontario, Canada  
Tel: (416) 270-0096

**Products:** geophysical equipment; RADEM-VLF-EM receiver; CEM-EM transmitter receiver; VEM-vertical loop EM; Newmont type induced polarization receiver and transmitters.

### **DANIELS ELECTRONIC LIMITED**

225 St. Lawrence Street  
Victoria, British Columbia, Canada  
Tel: (604) 382-8268

**Products:** marine and land SSB radio-telephone equipment and accessories; marine VHF-FM radio radiotelephones.

### **DANSCOLL LTD.**

9721 Côte de Liesse Road  
Montreal 760, Quebec, Canada  
Tel: (514) 631-9884

**Products:** television pulse and video

distribution amplifiers; processing amplifiers, mixing amplifiers, special effects amplifiers; production and master control and routing switchers, color, black and white generator; microphone/line preamplifiers, power amplifiers, audio mixing panels.

**DELTA-BENCO-CASCADE LIMITED**

124 Belfield Road  
Rexdale, Ontario, Canada  
Tel: (416) 241-2651  
Telex: 06-965552

**Products:** community antenna TV (CATV) distribution equipment — wideband Class "A" transistorized amplifiers and associated power supplies; wideband directional couplers, taps and splitters, products for improved home television reception; master antenna installations in hotels, motels, apartments and educational institutions; telemetry monitoring and test equipment for CATV.

**DYNAMIC INDUSTRIES INC.**

P.O. Box 1664  
45 Dorchester Street South  
Quebec City 2, Quebec, Canada  
Tel: (418) 524-5221

**Products:** transmission line towers and allied products; microwave towers, TV towers and wavestacks.

**DYNAQUIP ELECTRON DEVICES LIMITED**

1 West Avenue South, Suite 203  
Hamilton, Ontario, Canada  
Tel: (416) 525-8853

**Products:** real time digital clocks; program timers; audio distribution amplifiers; character generators.

**EALING SCIENTIFIC LIMITED**

9649 Côte de Liesse  
Dorval 760, Quebec, Canada  
Tel: (514) 631-5171

**Products:** counters and timers; curve tracers; electronic function generators; stroboscopic timers; amplifiers; Fourier synthesizers; gas chromatographs; C-H-N analyzers; D.T. analyzers; Mossbauer spectrometers; and other teaching apparatus for physics, chemistry and engineering.

**EASTERN GEOPHYSICS LTD.**

887 Kipling Avenue  
Toronto, Ontario M8Z 5H2, Canada  
Tel: (416) 231-0631

**Products:** industrial lasers, automatic grade control, portable and compact for alignment and control in construction, pipe laying, dredging and grading; laser communications.

**E.D.A. ELECTRONICS LTD.**

P.O. Box 5197, Station F  
Ottawa, Ontario K2G 0B2, Canada  
Tel: (613) 825-4123

**Products:** data transmission test equipment; digital event recorders; digital clocks and clock systems; low drain digital timers; fluxgate magnetometers; radon detection systems for uranium prospecting; astro clocks, gyro readout units; educational responder systems.

**EDWARDS OF CANADA**

625 6th Street East  
Owen Sound, Ontario, Canada  
Tel: (519) 376-2430  
Cable: EDCAN

**Products:** heavy-duty bells, horns and buzzers; visual nurse call systems; fire alarm systems; lamp and drop type annunciators; remote monitoring systems.

**EKEG ELECTRONICS CO. LTD.**

P.O. Box 310, Station A  
Vancouver 1, British Columbia, Canada  
Tel: (604) 685-7817

**Products:** biomedical electronic equipment including: telemetry transmitters and implantable transmitters; telemetry receivers; heart rate meters; solid-state clinical thermometers; neurophysiological ratemeters; temperature control units; EKG amplifiers; respiration monitors; drop counters; physiological event counters; biomedical data acquisition systems.

**EKOLITE LIMITED**

525 East Hastings Street  
Vancouver 4, British Columbia, Canada  
Tel: (604) 254-4515  
Cable: CANEKO

**Products:** marine echo sounders including sonar.

**ELECTRO DYNAMICS AND TELECOM LTD.**

300 Merritt Avenue  
Chatham, Ontario, Canada  
Tel: (519) 352-4570

**Products:** telephone equipment including: loop extenders; relay systems; inverters and power supplies; howler hold systems and custom equipment; solid-state, long duration timers; subscriber tone dial receivers and decoders; signal buzzers. Computer peripheral equipment: computer multiplexers, DC analog data, 255 to 2,047 channels; computer DDC to manual transfer and analog instrumentation control stations; PCM position encoders; industrial automation control systems; electronic sub-assemblies.

**ELECTRONIC CONTROLS LIMITED**

5 Lavington Drive, Suite 8  
Weston, Ontario, Canada  
Tel: (416) 248-9257, 248-2916  
Telex: 06-965834  
Cable: ELECTROLAB TORONTO

**Products:** technical education equipment for electrical, electronic and refrigeration, air-conditioning and heating laboratories including: power distribution systems; power supplies; demonstration equipment; instrumentation. Computer service training laboratories, fluid power laboratories, lab-servo laboratories, appliance repair shops, electrical construction shops and programs associated with basic electricity and electronics at the lower levels.

**ELECTRONIC ASSOCIATES OF CANADA LTD.**

P.O. Box 7000  
Steeles Avenue West  
Downsview, Ontario, Canada  
Tel: (416) 638-7000

**Products:** sensors and control equipment for the pulp and paper industry; overall control systems using digital techniques, modular software and hardware for groundwood mills, pulp mills, paper machines and finishing rooms; sensors and control systems for accurate measurement and control of basis weight, moisture, caliper, brightness, color, opacity, roll hardness, formation; also standardized moisture and basis weight analog control systems; detection and evaluation of cull sheets at cutter sorter and on paper machine or coater; off-line test equip-

ment for formation, caliper and basis weight.

**ELECTROVERT MANUFACTURING CO. LTD.**

3285 Cavendish Boulevard  
Montreal 261, Quebec, Canada  
Tel: (514) 488-2521  
Telex: 05-267561

**Products:** automated pretinning and soldering systems (also fluxing and cleaning operations) for electronic, electrical and automotive industries.

**ERA SCIENCES LTD.**

P.O. Box 3444, Station B  
Calgary, Alberta, Canada  
Tel: (403) 276-8831  
Telex: 038-22878

**Products:** airborne sensors and data acquisition systems for environmental and resource sciences, research, monitoring, and surveillance; surface environmental sensors and data acquisition systems; data processing and analysis.

**ESE LIMITED**

1780 Albion Road  
Rexdale, Ontario, Canada  
Tel: (416) 749-2271

**Products:** voice communications traffic measurement and toll ticketing equipment; data communications line conditioning equipment; high speed adaptive modems and modem test sets; high speed 1024 and 2048-point sequence-of-events scanners; special purpose digital systems.

**EXPLORANIUM CORPORATION  
Division of Geometrics Services  
(Canada) Ltd.**

48 Alness Street  
Downsview, Ontario, Canada  
Tel: (416) 661-1966  
Telex: 06-22694  
Cable: EXPLOR

**Products:** airborne analog gamma-ray spectrometers, digital four-channel spectrometers; ground gamma spectrum analyzers and multi-channel differential analyzers; portable gamma-ray borehole probe. Airborne magnetometers: proton magnetometer: marine/airborne proton magnetometer. Marine proton magnetometers. Ground portable proton magnetometer, analog and digital recorders. Data services for

geophysics and remote sensing: airborne and ground magnetic, gravity, infra-red, gamma-ray, geochemical, geological. Contract services airborne and ground: magnetic, infra-red, gamma-ray, geochemical and geological.

**FANON ELECTRONICS  
OF CANADA LIMITED**

25 Bathurst Street  
Toronto 2B, Ontario, Canada  
Tel: (416) 363-5011  
Telex: 02-21264

**Products:** intercoms; public address amplifiers; telephone amplifiers; loudspeakers (paging and talkback); walkie-talkies; megaphones; telephone intercoms.

**FARINON ELECTRIC OF  
CANADA LTD.**

657 Orly Avenue  
Dorval 760, Quebec, Canada  
Tel: (514) 636-0974  
Telex: 01-20962

**Products:** multi-channel microwave systems including radio, frequency division multiplex and accessory equipment to provide voice and video communications over routes from 10 km to 1,000 km; radio variety includes high power vacuum tube transmitters with up to 36 voice channels in bands 72-108 MHz and 132-174 MHz; solid-state narrow band radio with up to 60 voice channels in bands from 216 MHz to 470 MHz and 120 channels in bands 850-960 MHz and 1,700-2,300 MHz; solid-state wideband radio meeting or approaching CCIR objectives with channel capacities tailored to meet bandwidth regulation requirements and typically 300 to 1,800 channels and color video service in the bands 1.7 - 2.3 GHz, 3.7 - 4.2 GHz, 5.925 - 7.750 GHz, 10.7 - 13.25 GHz; portable video systems are also available in various microwave bands; frequency division voice channel multiplex in systems from 2-60 channels for narrow band radio and industrial service and in systems from 24-1800 channels meeting CCITT recommendations; complete spur and feeder systems to main route or low density main route systems are normally provided with full engineering and installation services when required.

**FERRANTI-PACKARD LIMITED**

121 Industry Street  
Toronto 15, Ontario, Canada  
Tel: (416) 762-3661  
Telex: 06-22007

**Products:** electromagnetic display systems and components for transportation, financial, convention, sports, military and utility-control centers; bar-code scanners and systems for catalog order, package and post office sortation; digital read-out and in-process gauging/control systems for metalworking and metalforming industries; watt-hour meters; street lighting relays; instrument transformers; metering outfits; power and distribution transformers; furnace transformers; step voltage regulators; shunt reactors; and tap changing equipment.

**FISCHER & PORTER (CANADA)  
LIMITED**

134 Norfinch Drive  
Downsview, Ontario, Canada  
Tel: (416) 633-9810  
Telex: 02-2709  
Cable: FISHCAPORT

**Products:** pneumatic and electronic control instrumentation; chlorination, digital data acquisition and control systems; traffic measurement systems; hydrologic and meteorological recording systems.

**FORTIN-LATCHFORD LTD.**

32 Carnforth Road  
Toronto, Ontario M4A 2K7, Canada  
Tel: (416) 751-6876

**Products:** rotary transfer molding machine for automatic thermo-setting encapsulation or insertion; insert molded piece parts; automatic or advanced mechanized custom equipment for piece part production.

**GARRETT MANUFACTURING  
LIMITED**

255 Attwell Drive  
Rexdale, Ontario, Canada  
Tel: (416) 677-1410  
Telex: 02-21673  
TWX: 610-492-4352

**Products:** aircraft temperature control systems for cabins and crew compartments; aircraft electric windshields and electronic bays; static inverters 250 VA (aircraft); dual frequency radio emergency beacons and downed aircraft locators; mesometeorological automatic

data collection system; air data support equipment and avionic test equipment; commercial shipboard systems; aircraft test equipment; custom micro-electronic circuit designing and manufacturing; micro-computers and digital training systems.

**GENERAL PRECISION INDUSTRIES LTD.**

P.O. Box 88  
32 Brome, Place Bonaventure  
Montreal 114, Quebec, Canada  
Tel: (514) 866-8395  
Telex: 05-24893  
TWX: 610-532-6561  
Cable: BOPHAR

**Products:** solid-state multi-channel VLF-VHF radio direction finding equipment for shipboard, vehicular and ground station applications; DF antenna systems.

**GEN-TEC INC.**

2625 Dalton Street  
Quebec, Quebec G1P 3S9, Canada  
Tel: (418) 651-8000

**Products:** peak load stabilizers; demand control systems; laser TEA CO<sub>2</sub> for educational industrial and research; joulemeters; HV probe.

**GEODYNAMICS SERVICES LTD.**

250 North Grosvenor Avenue  
Burnaby 2, British Columbia, Canada  
Tel: (604) 298-9619

**Products:** geophysical instruments; vertical field fluxgate self-levelling magnetometers; induced polarization instruments; self-potential instruments; remote source electromagnetics — VLF EM instruments.

**GEONICS LIMITED**

2 Thorncliffe Park Drive  
Toronto 17, Ontario, Canada  
Tel: (416) 425-1821  
Cable: GEONICS

**Products:** geophysical instrumentation including lightweight portable electromagnetic detectors; VLF electromagnetic units; horizontal-loop electromagnetic units with automatic readout; self-potential instruments; airborne VLF electromagnetic exploration systems; high power, deep penetrating LF electromagnetic systems; resistivity profiling instrumentation; one-man dipole electromagnetometer; general electronics;

modular electronic building system for researchers and educational electronics.

**GLENAYRE ELECTRONICS LTD.**

1551 Columbia Street  
North Vancouver, British Columbia  
Canada  
Tel: (604) 980-6041

**Products:** power supplies: AC/DC regulated types; DC/DC converters; DC/DC regulators; DC/AC inverters. Tone equipment: interrogator/transponder decoders; mobile telephone selective call digital decoder; dual-tone multi-frequency encoders and decoders. Vehicle location and identification equipment; interrogator/transponder types for railroad and bus reporting and control systems.

**GTE AUTOMATIC ELECTRIC (CANADA) LIMITED**

100 Strowger Boulevard  
Brockville, Ontario K6V 5J9, Canada  
Tel: (613) 342-6621  
Telex: 026-3532  
TWX: 610-525-1061  
Cable: GENTELINT BROCKVILLE

**Products:** electronic and electro-mechanical telephone switching equipment for central offices; manual toll, information, test and repair positions; private automatic branch exchange (PABX); private automatic exchange (PAX); key telephone equipment; secretarial answering units; telephones of all types; enterphone systems (apartments); engineering and installation services plus special applications for communications.

**GTE LENKURT ELECTRIC (CANADA) LTD.**

7018 Lougheed Highway  
Burnaby 2, British Columbia, Canada  
Tel: (604) 298-2464  
Telex: 04-54309  
TWX: 610-922-6096  
Cable: GENTELINT

**Products:** telecommunications products and services: microwave systems in bands from 900 - 13,000 MHz, up to 1,800 voice channels or color TV capacity, complete with service channel, IF and baseband protective switching, delay equalizers, etc.; multiplex systems equal to 1,800 channels, in-band or out-band signalling, regulators, termination equipment, wideband modems, echo suppressors, etc.; supervisory systems — models from 16 points/site

to 300 points/site — lamp displays, optional computer based fault analysis and control; data modems from 50 b/s to 2,400 b/s; services for repair and training products, complete engineering, furnishing and installation of products including civil works, prime power, etc.

**GUILDLINE INSTRUMENTS LIMITED**

Churchill Crescent  
Smiths Falls, Ontario, Canada  
Tel: (613) 283-3000  
Telex: 053-3028

**Products:** electrical and temperature measuring instruments of the highest accuracy and precision; voltage and resistance standards; oceanographic instrumentation for pressure, depth conductivity and salinity.

**GULTON INDUSTRIES (CANADA) LTD.**

**West Instrument Division**

P.O. Box 1150  
Gananoque, Ontario K0H 1R0, Canada  
Tel: (613) 382-2141  
Telex: 026-2245

**Products:** industrial controls; thermo-couple actuated temperature controllers.

**HAMPDEN LTD.**

P.O. Box 221  
610 Welland Avenue  
St. Catharines, Ontario, Canada  
Tel: (416) 685-4237

**Products:** regulated power supplies; motor-generator training systems; laboratory power systems; motor control teaching systems; basic electricity and electronics teaching systems; signal distribution systems.

**HARCO ELECTRONICS LIMITED**

740 Century Street  
Winnipeg, Manitoba R3H 0M1, Canada  
Tel: (204) 786-6534

**Products:** medical electronic monitoring and resuscitative equipment including: safety test equipment and ground leakage detectors; patient isolators and cable sets; Cardialert monitors; diagnostic ECG machines, ECG activated Cardialert monitors; DC defibrillator with and without synchronizer; fully equipped emergency Crash Carts; fetal heartrate and inter-uterine pressure monitors.

**HERMES ELECTRONICS LIMITED**

P.O. Box 1005  
Dartmouth, Nova Scotia, Canada  
Tel: (902) 466-7491  
Telex: 019-21744  
TWX: 610-271-1974

**Products:** EDP peripheral service equipment; computer magnetic tape cleaners; verifiers; rewinders; erasers; metallurgical testing equipment; vacuum chambers and furnaces; tensile, creep testing machines; pneumatic transducers; CALARM annunciators; liquid level switches; radio communications equipment; HF antennas; ionospheric sounder equipment; oceanographic buoys and devices; sonobuoys; ships' intercommunications equipment; water quality measuring equipment.

**HONEYWELL LTD.**

740 Ellesmere Road  
Scarborough, Ontario, Canada  
Tel: (416) 293-8111  
Telex: 02-21680

**Products:** modulating solid-state controllers; electronic potentiometer and resistance bulb recorders and controllers; flow transmitters/receivers, thermo-couples and sensors; keytape data input units; electronic air cleaners.

**HOTPACK (CANADA) LTD.**

385 Phillip Street North  
Waterloo, Ontario, Canada  
Tel: (519) 884-3590  
TWX: 610-365-3434

**Products:** designers and manufacturers of controlled environment and laboratory test equipment for research, industry, education and medicine.

**HUNTEC ('70) LIMITED**

1450 O'Connor Drive  
Toronto 374, Ontario, Canada  
Tel: (416) 751-8055  
Telex: 06-22797  
Cable: HUNTOR

**Products:** portable facsimile seismograph for shallow engineering subsurface studies; induced polarization instruments including IP receivers and low and high power transmitters for mineral prospecting; single and dual-channel marine seismic profiling systems for marine engineering foundation surveys and underwater mineral and oil exploration.

**INAX INSTRUMENTS LTD.**

P.O. Box 6044, Station J  
Ottawa, Ontario K2A 1T1, Canada  
Tel: (613) 825-4711  
Cable: INAXIN

**Products:** X-ray fluorescence spectrometers; uranium survey instruments, X and gamma-ray spectrometers; nuclear instruments; computer compatible magnetic tape readers.

**INSTRONICS LTD.**

Stittsville, Ontario K0A 3G0, Canada  
Tel: (613) 836-4411  
Telex: 053-4115

**Products:** graphic digitizers; data acquisition systems, remote and custom designed; data line interfaces — card punch, magnetic tape, computers and paper tape punches; solid-state cooling system; LF and AF FSK exciters; parity checker; power supplies; machine monitoring electronics.

**INTERNATIONAL SYSTEMS LIMITED**

4900 Fisher Street  
Montreal 376, Quebec, Canada  
Tel: (514) 735-6441  
TWX: 610-422-3065

**Products:** VHF and UHF radio telephone equipment including mobile, portable, fixed station and rural radio.

**INTERRA ENVIRONMENTAL CONSULTANTS LTD.**

1010 - 603 7th Avenue Southwest  
Calgary, Alberta T2P 2T5, Canada  
Tel: (403) 264-5113

**Products:** airborne sensors and data acquisition systems for the environmental and resource sciences, research, monitoring and surveillance; surface environmental sensors and data acquisition systems; data processing and analysis.

**ITT COMMUNICATIONS  
A Division of ITT Canada Limited**

175 Dawson Road  
Guelph, Ontario N1H 1A1, Canada  
Tel: (519) 821-2000  
Telex: 02-956547

**Products:** telephone and telegraph equipment; telephone carrier equipment; telex and broadband switching; data telephones; field maintenance; repair and overhaul; electronic PABXs;

central office peripheral switching equipment; remote meter reading equipment; subscriber loop devices; ground and airborne radio navigation equipment; postal mechanization; letter coding desks; letter sorting machines; mail conveyor systems; document sorters.

**KEIL INDUSTRIES LIMITED**

P.O. Box 664  
125 Whitney Place  
Kitchener, Ontario, Canada  
Tel: (519) 578-7380

**Products:** intercom and sound systems; musical and PA amplifiers; reverberation units; language laboratory; educational record players; sheet metal cabinetry; metal chassis.

**GEORGE KELK LIMITED**

48 Lesmill Road  
Don Mills, Ontario M3B 2T5, Canada  
Tel: (416) 445-5850  
Telex: 06-966670  
Cable: KELLEX TORONTO

**Products:** custom: exploit modern techniques in electronics and allied fields to solve problems and provide hardware solutions not met by off-the-shelf equipment; standard: steel mill hot slab and ingot dimension gauges and sensors for on-line process control, including necessary software; AC line voltage regulators.

**LAB-VOLT LIMITED**

P.O. Box 700  
Pointe Claire/Dorval, Quebec, Canada  
Tel: (514) 381-8574  
Telex: 05-268747

**Products:** power supplies, measuring devices, RLC loading units, motors, generators, dynamometers and other equipment to assist the teaching of electric power technology; control systems utilizing various components for the teaching of controls as they relate to electric power technology.

**LANICO INDUSTRIES LTD.**

P.O. Box 398  
Don Mills, Ontario M3C 2S7, Canada  
Tel: (416) 438-6465

**Products:** electronic controls and monitoring equipment; Ph measurement and control equipment; electronic

## Electronics Equipment and Systems Section (Con't.)

teaching aids; solid-state switches; test equipment; liquid level controls; water quality monitors.

### **LEBLANC & ROYLE COMMUNICATIONS TOWERS LIMITED**

514 Chartwell Road  
P.O. Box 880  
Oakville, Ontario L6J 5C5, Canada  
Tel: (416) 844-1242  
Telex: 06-982226  
TWX: 610-495-2676

**Products:** communications towers; heavy microwave and television transmission towers both guyed and self-supporting; complete installation, maintenance and inspection service.

### **LEIGH INSTRUMENTS LIMITED Avionics Division**

P.O. Box 820  
Carleton Place, Ontario K0A 1J0  
Canada  
Tel: (613) 257-3883  
Telex: 053-4148

**Products:** airfoil delivery systems; crash position indicators; electronic systems including flight data acquisition systems applicable to safety, maintenance, mission analysis, training and flight evaluation; avionic flight instrumentation including altimeters of these various types — pneumatic, encoding, servoed, servo pneumatic, pneumatic servoed, simulated; emergency locator transmitters (ELTs); design and development of specialized navigation instruments; safety and marker beacons; satellite beacons; radio detection (VHF) equipment; air traffic control radar digitizer; ground support and test equipment associated with products; field maintenance, repair and overhaul, test and calibration services and facilities; product design and development services; technical writing, cataloguing and illustrating services.

### **LEIGH INSTRUMENTS LIMITED Technology Division**

320 Moodie Drive  
Bells Corners, Ontario, Canada  
Tel: (613) 829-5200  
Telex: 013-3112

**Products:** ambient air fluoride analyzer; mono-comparators; computer peripherals; alpha-graphic printer/plotter; CRT hard copy printer.

### **LISLE INSTRUMENT SYSTEMS LIMITED**

49 Sheffield Street  
Toronto, Ontario M6M 3E5, Canada  
Tel: (416) 249-9151  
Telex: 06-219664  
Cable: LISLEINST

**Products:** electrolytic conductivity instruments and controls for industrial processing and consumer applications; includes monitoring, measuring and recording systems.

### **LITTON SYSTEMS (CANADA) LIMITED**

25 Cityview Drive  
Rexdale, Ontario, Canada  
Tel: (416) 249-1231  
Telex: 02-2714  
TWX: 610-492-2110  
Cable: LITTCAN

**Products:** airborne inertial navigation systems; airborne area navigation systems; special purpose airborne computer systems; tactical data systems; special purpose commercial electronic control systems; air traffic control and ground controlled interception training simulators; navigation training simulators and other special purpose training simulators; aerospace ground equipment; automatic, mobile, portable and factory test equipment; optical character recognition systems for data processing and postal automation systems.

### **LORAIN PRODUCTS (CANADA) LTD.**

122 Edward Street  
St. Thomas, Ontario, Canada  
Tel: (519) 631-0780  
TWX: 610-356-6703

**Products:** battery chargers; battery eliminators; ringing and tone equipment; inverters; DC to DC converters; PAX and PBX power units; power distribution control equipment and assemblies; static interrupters, ringing plants; test load units; test power supplies.

### **LUMONICS RESEARCH LIMITED**

1755 Woodward Drive  
Ottawa, Ontario K2C 0P9, Canada  
Tel: (613) 225-1606  
Cable: LUMONICS

**Products:** high energy pulsed TEA CO<sub>2</sub> lasers for spectroscopy, materials research, propagation studies and plasma/fusion research; lasers operating with such gases as carbon

monoxide, hydrogen fluoride, hydrogen bromide and deuterium fluoride.

### **M & K DEVELOPMENTS**

P.O. Box 457  
Rexdale, Ontario, Canada  
Tel: (416) 749-3150

**Products:** traffic data acquisition and processing devices including loop vehicle detectors, count summators, multi-channel traffic counters/analyzers with computer-compatible punch tape output; solid-state signal flashers and transfer relays.

### **MARSLAND ENGINEERING LIMITED**

350 Weber Street North  
Waterloo, Ontario N2J 4E3, Canada  
Tel: (519) 884-4510  
Telex: 029-54440

**Products:** airport control equipment consisting of runway visual range computers, transmissometers, ceilometer, digital altimeter display system (DADS); automatic weather stations; analog-digital plotting computers; airborne recorders; airborne intercom systems (solid-state); training aids (simulators); special power supplies; public address equipment and systems; precision geared and electronic assemblies to customer specifications; teletypewriters; CATV products.

### **McCURDY RADIO INDUSTRIES LIMITED**

108 Carnforth Road  
Toronto, Ontario M4A 2L4, Canada  
Tel: (416) 751-6262  
Telex: 02-21660  
Cable: MACMETAL

**Products:** complete broadcast audio line including solid-state consoles, production centers, components, packages and accessories; solid-state intercom systems; pre-wired jackfields; audio distribution systems; audio switchers, consoles, amplifiers and speaker units for educational systems.

### **McPHAR GEOPHYSICS LIMITED**

139 Bond Avenue  
Don Mills, Ontario, Canada  
Tel: (416) 449-5551  
Cable: MCPHAR TORONTO

**Products:** geophysical instruments for mineral exploration — variable frequency induced polarization equipment;

fluxgate magnetometers; proton magnetometers; radiation spectrometers (ground and airborne); resistivity equipment; Aomag (ground and airborne); electromagnetic and induced polarization scale modelling systems; self-potential units; electromagnetic drill hole systems.

**MEASUREMENT ENGINEERING  
Division of Canadian Stackpole  
Ltd.**

6 John Street South  
Arnprior, Ontario K7S 2P9, Canada  
Tel: (613) 623-4217

**Products:** dynamic ground detectors; leakage isolated power supplies; accessories for hospital electrical systems.

**MEGA SYSTEM DESIGN  
LIMITED**

1766 Midland Avenue  
Scarborough 732, Ontario, Canada  
Tel: (416) 751-1935

**Products:** microwave industrial dryers; microwave moisture sensors; microwave special purpose applicator chambers; power supplies; custom designed electronic devices.

**METRIX MANUFACTURING  
COMPANY LIMITED**

51 Sheffield Street  
Toronto, Ontario M6M 3E5, Canada  
Tel: (416) 249-9153  
Telex: 06-219664

**Products:** timing devices both electro-mechanical and electronic for industrial applications; electro-mechanical and mechanical assemblies; solid-state controls; relays; electrolytic conductivity instruments and cells; industrial control systems and hardware.

**MICROWAVE TECHNOLOGY  
Division of Arrowflight  
Holdings Ltd.**

7512 Bath Road  
Mississauga, Ontario L4T 1L2, Canada  
Tel: (416) 677-7861

**Products:** microwave heating and drying equipment; industrial microwave power sources; industrial ovens; conveyorized ovens; microwave survey meters.

**MODUDATA SYSTEMS LIMITED**

P.O. Box 521  
Willowdale, Ontario, Canada  
Tel: (416) 222-2902

**Products:** time and frequency division multiplex systems; remote alarm indicator system (RAIS); remote pump failure alarm; intrusion alarm system; alarm status monitoring and supervisory control of multiple devices at remote locations.

**MOTOROLA (DASCAN)**

3125 Steeles Avenue East  
Willowdale, Ontario M2H 2H6, Canada  
Tel: (416) 499-1441  
Telex: 02-29944  
(CDNMOTOROLATOR)  
TWX: 610-492-2713 (MOT TOR)

**Products:** supervisory and remote control systems; monitoring and alarm reporting systems; telemetering; status indication and annunciation systems; frequency shift tone equipment.

**MULTI-ELMAC OF CANADA  
LIMITED**

Sydney Avenue, Devon Park  
Windsor, Ontario, Canada  
Tel: (519) 966-0162

**Products:** remote radio controls, radio controls for all security systems.

**MULTI-VOX LTD.**

9967 St-Michel Boulevard  
Montreal 459, Quebec, Canada  
Tel: (514) 321-3131

**Products:** intercommunication systems for commercial, industrial, educational and institutional applications; complete line of solid-state commercial amplifiers; sound columns; special purpose telephone systems.

**NASH & HARRISON LIMITED**

P.O. Box 11220, Station H  
Ottawa, Ontario K2H 7V7, Canada  
Tel: (613) 592-3520  
Cable: AUTOMATION

**Products:** optical inspection and control systems for detecting dirt, discoloration, lumps, wrinkles, holes, coating skips and other defects in web or sheet material moving at speeds up to 1,800 m/m; hole and pin-hole detectors; splice alarms; press stopper detector systems; dirt counters; wrinkle detectors; spray markers; edge markers;

crayon markers; hole punch markers; flaggers; marker pick-ups; marker control computers; rejection control computers; register control systems; transparency recorders; defect displays and recorders; digital multimeters; digital panel meters.

**(THE) NATIONAL CASH  
REGISTER CO. OF CANADA LTD.**

222 Lansdowne Avenue  
Toronto 145, Ontario, Canada  
Tel: (416) 537-1241  
Telex: 02-21176  
Cable: NACARECO

**Products:** banking and business machines; proofing and coding machines.

**NATIONAL ELECTROLAB LTD.**

1130 East 7th Avenue  
Vancouver 12, British Columbia, Canada  
Tel: (604) 879-9161  
Telex: 043-54623  
TWX: 610-929-1058

**Products:** AM broadcast RF amplifiers; high quality off-air receivers for AM broadcast industry; recorder controllers for monitoring of telephone signalling; oceanographic telemetry systems; broken wire detectors for aluminum rope stranding machines; engineering and installation services; design and manufacture of custom instruments and equipment; repair, overhaul and calibration of electrical and electronic instruments, test equipment meters, etc., for science, government and industry; electrical metrology lab for precise calibration.

**NAUTICAL ELECTRONIC  
LABORATORIES LIMITED**

Hackett's Cove  
Halifax County, Nova Scotia, Canada  
Tel: (902) 823-2233  
Telex: 014-423552

**Products:** solid-state LF non-directional radio beacon systems for aeronautical and marine navigation with output powers up to 4 kW PEP; radio beacon monitor receivers; automatically tuned high frequency antenna systems; solid-state broadcast transmitters; LF, MF and HF solid-state communications transmitters; VHF telemetry systems.



**J. M. NELSON ELECTRONICS LTD.**  
1305 Odlum Drive  
Vancouver 6, British Columbia, Canada  
Tel: (604) 254-5148  
Telex: 04-54521

**Products:** language laboratories and record players for educational institutions.

**NORTHERN ELECTRIC COMPANY LIMITED**

P.O. Box 6123  
1600 Dorchester Boulevard West  
Montreal, Quebec, Canada  
Tel: (514) 931-5711  
TWX: 610-421-3750  
Cable: NORELCAN

**Products:** common control cross bar telephone switching exchanges; stored program electronic telephone switching exchanges; radio relay and coaxial transmission systems — long and short haul; light and heavy route multiplex; domestic satellite communications systems; private automatic and branch exchanges — cross bar and electronics; key telephone systems; business inter-phone systems; telephone sets — business and residential; hands free telephone sets; telephone head sets — light-weight and standard; coin telephone sets — box and panel; telephone booths; test equipment; connecting blocks; loading coils; filters; protectors; power plants; amplifiers; complete line of communications and power wires and cables.

**NR SYSTEMS LTD.**

2373 Stevenage Drive  
Ottawa, Ontario K1G 3N4, Canada  
Tel: (613) 733-4440  
Telex: 053-4274

**Products:** data transmission systems and terminal equipment including high density time division multiplex systems; frequency division data transmission systems with speeds up to 600 baud; speech plus data systems; regenerative repeaters of all types; EIA to current loop converters; telemetering systems; automatic dialling units for data systems; electronic relays; universal sequential selectors; 2/4 wire signalling adaptors and terminating sets; low speed modems.

**OMICRON DATA SYSTEMS LIMITED**

4480 Côte de Liesse, Suite 310  
Montreal 306, Quebec, Canada  
Tel: (514) 733-7166  
Cable: OMIDASYS

**Products:** telephone dial access radio paging systems; consulting services in data communications, digital computer systems, design and project management.

**OWL INSTRUMENTS LTD.**

4634 Yonge Street  
Toronto, Ontario, Canada  
Tel: (416) 223-3363

**Products:** medical electronics; fetal monitor; cordotomy system.

**PHILIPS ELECTRONICS INDUSTRIES LTD.**

116 Vanderhoof Avenue  
Toronto, Ontario M4G 2J1, Canada  
Tel: (416) 425-5161  
Telex: 06-22221  
Cable: PHILIND TORONTO

**Products:** instrument landing systems; communications control equipment and systems; aeronautical nav aids; quartz frequency control crystals; TV and stereo hi-fi cabinets.

**PHYSICO-MEDICAL SYSTEMS CORPORATION**

9250 Park Avenue, Suite M-101  
Montreal 354, Quebec, Canada  
Tel: (514) 387-9676  
Cable: PMSYSTEMS, MONTREAL

**Products:** biomedical electronics including electrical vesical stimulators, sphincter muscle stimulators, uroflowmeters, blockage detectors.

**PICKER X-RAY MFG. LTD.**

26 Victoria Crescent  
Bramalea, Ontario, Canada  
Tel: (416) 677-6880

**Products:** X-ray equipment of all kinds; breast X-ray systems; chest X-ray systems; and general automatic complete X-ray systems and equipment.

**POLYTRONICS CO.**

582 Bathurst Street  
Toronto, Ontario M5S 2P9, Canada  
Tel: (416) 921-8767

**Products:** quality measurement and control instruments including precision wire wound resistors; decade boxes; voltage dividers; Wheatstone bridges; temperature controllers of high accuracy and stability; attenuators with essentially flat frequency responses from DC to 3 MHz; mine ventilating monitoring systems and equipment.

**POWERTRONIC EQUIPMENT LIMITED**

125 Nantucket Boulevard  
Scarborough, Ontario, Canada  
Tel: (416) 757-5151  
Telex: 02-29523

**Products:** DC power supplies, regulated and unregulated; communication type filtered battery chargers; battery chargers for industrial trucks and electric locomotives; electroplating rectifiers; line voltage regulators; chargers for engine starting batteries; static inverters; VPS systems.

**PYLON ELECTRONIC DEVELOPMENT COMPANY, LTD.**

2300 Victoria Avenue  
Lachine, Quebec, Canada  
Tel: (514) 637-1186

**Products:** static power supplies; DC-DC converters; inverters; ringing and signalling supplies; fuse alarm and meter panels; battery eliminators; fixed coaxial attenuators and terminations; aluminum transit cases; digital clocks; programmers; data entry keyboard; special controls based on the digital technique; electronic trunk selectors for Cama application; specialized solid-state (switching) equipment for telephone office use; small solid-state satellite automatic exchange for telephone use.

**QUINDAR PRODUCTS LIMITED**

106 Rayette Road  
Concord, Ontario, Canada  
Tel: (416) 669-1272  
Telex: 06-22864

**Products:** electronic equipment for remote control, supervision and telemetry; multiplexing systems; data modems; communication amplifiers, related equipment and accessories.

**RCA LIMITED**

Ste-Anne-de-Bellevue  
Quebec, Canada  
Tel: (514) 457-9000  
Telex: 05-821572

**Products:** communications satellite earth stations for global and regional systems; Cassegrain antenna feed sub-system and ground communications subsystem for satellite earth stations; solid-state microwave radio relay systems (2, 4, 6 and 7 GHz); satellites for global and regional satellite systems and satellite subsystems — wideband transponders, command and telemetry transmitters and encoders/decoders antennas, ground check-out equipment; digital display systems; AM, FM and TV transmitters, broadcast and TV antenna systems and/or arrays, broadcast and TV studio facilities; photo sensors for research applications.

**RACAL (CANADA) LTD.**

1806 Woodward Drive  
Ottawa, Ontario K2C 0P7, Canada  
Tel: (613) 225-4640  
Telex: 053-4187

**Products:** HF radio communications systems and ancillary equipment; communications systems; engineering and maintenance services; digital frequency measuring equipment.

**RADIO ENGINEERING PRODUCTS LIMITED**

P.O. Box 460, Snowdon Station  
Montreal 248, Quebec, Canada  
Tel: (514) 731-3251  
Telex: 05-25225  
TWX: 610-421-3726  
Cable: RADENPRO MONTREAL

**Products:** FDM telephone and telegraph multiplexers for radio and cable systems of from four to 612 channels; field telephones two and four-wire; VHF antennas and masts; cable assemblies and connectors; power supplies; voltage regulators; telegraph converters; and other accessory equipment.

**RAPID DATA SYSTEMS & EQUIPMENT LTD.**

129 Carlingview Drive  
Rexdale, Ontario, Canada  
Tel: (416) 678-1000  
Telex: 02-21228  
Cable: RAPIDATA

**Products:** pocket-size and desk-top electronic calculators.

**RAYCON INC.**

218 Brunswick Boulevard  
Pointe Claire 730, Quebec, Canada  
Tel: (514) 695-7725

**Products:** industrial automation and control systems for basic industries such as steel, glass, paper and cement, using mini-computer control; materials handling control systems for conveyors, drag lines, stacker cranes, etc.; pipeline automation; general industrial control equipment using solid-state logic cards; three-mode temperature controllers; regulated power supplies and sine wave inverters.

**RAYTHEON CANADA LIMITED**

400 Phillip Street North  
Waterloo, Ontario, Canada  
Tel: (519) 885-0110  
Telex: 029-5431  
TWX: 610-365-3469  
Cable: RAYCAN

**Products:** primary, secondary and weather radar systems; radar bright display equipment; symbol generating equipment; VHF omni-range, DME distance measuring equipment, instrument landing systems and other ground air traffic control navigation aids; analog and digital display and data processing equipment; radio relay equipment; specialized test and measuring equipment; simulators and trainers; microwave communications equipment; printed circuit modules.

**RESEARCH INDUSTRIES LIMITED**

2779 Lake City Way  
Burnaby 2, British Columbia, Canada  
Tel: (604) 291-2385  
Telex: 04-50758  
TWX: 610-929-1063

**Products:** telephone power plants; battery eliminators; battery chargers; DC to DC converters; switching regulators; power supplies; DC to AC inverters; PABX power supplies; counter EMF cells.

**RICHMOND HILL LABORATORIES LIMITED**

1240 Ellesmere Road  
Scarborough, Ontario, Canada  
Tel: (416) 291-7921  
Telex: 02-29803  
Cable: RICHILL TORONTO

**Products:** PAL color synchronizing pulse generators; PAL color sub-carrier generators; monochrome and color generator and lock units; Uni-Pulse equipment; pulse and video distribution amplifiers; video test signal generators; VIT signal systems; color video program switchers; video/audio signal routing matrixes; special effects generators; digital cueing generator; video equalizing amplifiers; video clamping amplifiers; video processing amplifiers; master clock system driver; dimmers, lighting control systems; emergency lighting.

**ROCHESTER INSTRUMENT SYSTEMS OF CANADA LTD.**

915 Kipling Avenue  
Toronto 18, Ontario M8Z 5H4, Canada  
Tel: (416) 233-6218  
Telex: 06-23284

**Products:** solid-state visual annunciators; electronic trips and alarms; solid-state signal converters and transducers for processing industries and power utilities; temperature monitors.

**RUSCOM LOGICS LIMITED**

62 Alness Street  
Downsview 463, Ontario, Canada  
Tel: (416) 630-9470

**Products:** digitizers.

**SANDER GEOPHYSICS LIMITED**

1305 Richmond Road  
Ottawa, Ontario K2B 7Y2, Canada  
Tel: (613) 829-1433

**Products:** nuclear proton precession magnetometers for mineral exploration and scientific studies; portable and airborne magnetometers; data logging equipment and analog or digital input; portable, battery operated, digital recording units; custom design of digital acquisition systems.

**SCINTREX LIMITED**

222 Snidercroft Road  
Concord, Ontario, Canada  
Tel: (416) 889-8990  
Telex: 06-219674  
Cable: SCINTREX TORONTO

**Products:** fluxgate and proton precession magnetometers for surface, drill hole observatory and airborne use; susceptibility meters for field and lab measurements; CG series quartz gravity meters for prospecting and geodetic surveys; electromagnetic prospecting

systems including tilt-angle systems, moving source and fixed source compensation systems; drill hole electromagnetic compensator systems; helicopter and fixed wing electromagnetic systems; pulse type induced polarization systems; integral and differential gamma-ray spectrometers for ground and airborne applications; neutron activator analysis systems and facilities; AC and DC resistivity equipment; instruments for non-destructive analysis of geologic and industrial materials — analog digital recording systems; field portable digital test equipment; headphones for industrial, educational and recreational applications; services — geophysical consultations; surface, drill hole and airborne surveys; natural resources inventory studies.

#### **SED SYSTEMS LTD.**

P.O. Box 1464  
2415 Koyl Avenue  
Saskatoon, Saskatchewan S7K 3P7  
Canada  
Tel: (306) 244-0976

**Products:** satellite ground stations for ERTS and communications satellites; digital systems using PCM telemetry and other modulation techniques; power distribution and control systems for satellite and sounding rocket use; "HILDA" System for obtaining data from energized, high voltage power transmission lines and custom built data acquisition systems for remote monitoring; automatic telephone dialling equipment.

#### **SINCLAIR RADIO LABORATORIES LIMITED**

122 Rayette Road  
Maple, Ontario, Canada  
Tel: (416) 669-1244

**Products:** antennas for all frequencies especially VHF and UHF; low intermod antennas specifically for multicoupling; DME antennas; filters and filter systems particularly for multicoupling with low intermod, bandpass, low and high pass, band stop, etc.; HF transformers and baluns; active receiver multicouplers; autotuned filters and antenna couplers; diplexers; consulting services on all antenna and filter systems; measurement services for intermod products, filter characteristics, antenna patterns and impedances.

#### **SPACE RESEARCH CORPORATION**

2055 Peel Street, Suite 650  
Montreal 110, Quebec, Canada  
Tel: (514) 288-8174

**Products:** simulators for air traffic control and radar training purposes.

#### **SPAR AEROSPACE PRODUCTS LIMITED**

825 Caledonia Road  
Toronto, Ontario M6B 3X8, Canada  
Tel: (416) 781-1571  
Telex: 02-2054  
Cable: SPARCAL TOR

**Products:** satellite subsystems including attitude control systems, deployable solar cell array power generating systems, solar array drives, tracking and power transfer system; extendible antennas and structures for spacecraft; infrared acquisition systems; electro-optical systems for remote sensing; static power conditioning equipment; portable fire detector (Hotspotter); mobile X-ray equipment.

#### **SPARTON OF CANADA, LIMITED**

P.O. Box 5125  
100 Elm Street  
London, Ontario, Canada  
Tel: (519) 445-6320  
Cable: SPARTON

**Products:** sonobuoy transmitters and associated equipment.

#### **SPILSBURY & TINDALL LTD.**

120 East Cordova Street  
Vancouver 4, British Columbia, Canada  
Tel: (604) 684-4131  
Telex: 04-55482  
Cable: SPILTIN VANCOUVER

**Products:** HF SSB fixed portable mobile marine and aircraft radiotelephone equipment; LF non-directional radio beacons and beacon antennas; specialized HF antennas and antenna tuning units for service on land, sea and air; VHF/UHF land fixed and mobile and VHF marine mobile radio systems.

#### **STARK ELECTRONIC INSTRUMENTS LIMITED**

180 Station Street  
Ajax, Ontario, Canada  
Tel: (416) 942-2120  
Telex: 06-981298  
Cable: STARKEKX TORONTO

**Products:** general purpose electronic test equipment and power supplies including vacuum tube voltmeters, tube testers, oscilloscopes, audio generators, resistance decade boxes, capacitance decade boxes; Stark Teaching Systems — a breadboarding method of teaching electricity and electronics.

#### **STATION LTD.**

2220 Midland Avenue  
Scarborough, Ontario, Canada  
Tel: (416) 291-3723  
Telex: 06-217606

**Products:** high-reliability solid-state control systems; no-break AC and DC power conversion equipment; regulated rectifiers; inverters and converters; continuous AC UPS systems; rectifier and battery charger for industrial truck battery or station and communications service; voltage regulators.

#### **SUBCOM SYSTEMS LTD.**

153 Riverside Drive  
North Vancouver, British Columbia  
Canada  
Tel: (604) 929-1258

**Products:** wired and wireless diver communications equipment; wireless communications equipment for use with submersibles or surface vessels; diver decompression chamber communications equipment; pingers, pinger receivers and pinger tracking systems; submersible navigation systems.

#### **T-SCAN LIMITED**

34 Continental Place  
Scarborough, Ontario, Canada  
Tel: (416) 291-7992

**Products:** time shared-transaction oriented mark sense data terminals.

#### **TAYLOR INSTRUMENT COMPANIES OF CANADA LIMITED**

75 Tycos Drive  
Toronto 19, Ontario, Canada  
Tel: (416) 787-1651  
Telex: 02-21144  
Cable: TYCOS TOR

**Products:** electronic automatic control instruments and control systems for the process industries — pulp and paper, mining, textile and food, petroleum, gas pipelines, etc. — including computer operated installation or computer compatibility; control centers, fully engi-

neered to customers' requirements and operating procedures; gauges, indicators, recorders, controllers for temperatures, pressures, flow, specific gravity and other process variables; installation, contract, construction and systems engineering.

**TECHCAL ELECTRONIC SERVICES LTD.**

2346 Spruce Street  
Vancouver 9, British Columbia, Canada  
Tel: (604) 736-7471

**Products:** propagation incident recorders (microwave testing instruments); data acquisition systems; digital integration systems; CAMAC modules (nuclear computer data handling equipment); automated lumber tally systems; consultant services in mini-computers and process control applications; power supplies.

**TELE-RADIO SYSTEMS LIMITED**

301 Supertest Road  
Downsview, Ontario, Canada  
Tel: (416) 661-3221  
TWX: 610-492-2384

**Products:** fault alarm systems (microwave, etc.); telephone signalling equipment; telephone traffic registers; custom communication apparatus; telephone test equipment; power system protective devices (under-frequency relays, battery ground fault detectors).

**TELEVOX SYSTEMS INC.**

215 Caron Street  
Quebec 2, Quebec, Canada  
Tel: (418) 522-3851

**Products:** intercom systems; educational systems — manual and automatic; hospital nurses' call systems — manual and automatic; public address systems; intercom amplifiers; program amplifiers; mixing preamplifiers; voice-switching intercom amplifier; private automatic exchange (crossbar type).

**TOWER COMMUNICATIONS CO. (CANADA) LIMITED**

P.O. Box 1011  
375 Lee Street  
Quebec, Quebec, Canada  
Tel: (418) 524-5221

**Products:** custom designed structural steel towers (guyed and self-supporting) for commercial use on TV, FM, AM, HF, LF and VHF systems (heights

in excess of 1,000 feet also available). Services — engineering, supply and installation of towers and associated foundations, antennas, etc.

**TRANSCOM ELECTRONICS MANUFACTURING LTD.**

239 Belanger Street  
St. Jerome, Quebec, Canada  
Tel: (514) 438-1060

**Products:** negative impedance type voice frequency repeaters (telephone industry application — toll and extended area service, long subscriber loop service, special services); loop signalling extenders (for extension of telephone central office subscriber loop limits to 1,800 ohms); booster power modules (for extension of telephone central office subscriber loop limits to 3,000 ohms); bridge lifters; impedance compensators; fuse and alarm panels.

**UNELCO LTD.**

103 Gun Street  
Pointe Claire 730, Quebec, Canada  
Tel: (514) 697-1240

**Products:** power supplies and distribution systems for electrical, electronics, physics, chemistry and other scientific laboratories; instructional equipment to teach and demonstrate electricity and electronics.

**UNITRON INDUSTRIES LTD.**

685 Wabanaki Drive  
Kitchener, Ontario N2C 2G3, Canada  
Tel: (519) 578-5500

**Products:** hearing aids (behind-the-ear, eyeglass and body types), available as standard, compression and automatic linear compression; test equipment for audio-electronics.

**VALERIOTE ELECTRONICS (GUELPH) LTD.**

P.O. Box 603  
Guelph, Ontario, Canada  
Tel: (519) 824-3220

**Products:** modules; splitter panels; power supplies amplifiers; communications equipment; antennas; fiberglass whip antennas, mobile, marine and fixed; electronic assembly work.

**VERREX ADVANCED SYSTEMS LTD.**

P.O. Box 837  
Saskatoon, Saskatchewan S7K 3L7  
Canada  
Tel: (306) 652-6886

**Products:** supervisory controls, solid-state annunciator modules; communications voice scramblers; data acquisition systems for oil and gas industry; process control systems; computer automation equipment.

**VICKERS UMAC Division of Sperry Rand**

2500 Trans-Canada Highway  
Pointe Claire 730  
Montreal, Quebec, Canada  
Tel: (514) 695-7870  
Telex: 05-268583

**Products:** two and three axis, point-to-point numerical control system with two axis linear and circular interpolation; two, three and four axis point-to-point numerical control system with two axis plane switchable linear and circular interpolation; position readout systems; programmable controllers.

**VITEC COMMUNICATIONS LTD.**

9721 Côte de Liesse Road  
Montreal 760, Quebec, Canada  
Tel: (514) 631-9884  
Cable: VITECOM MONTREAL

**Products:** television systems; supervisory control and telemetry systems; courtroom recording systems.

**WESTINGHOUSE CANADA LIMITED International Sales Division**

P.O. Box 510  
Hamilton, Ontario, Canada  
Tel: (416) 528-8811  
Telex: 02-1655  
TWX: 610-371-0246  
Cable: WESTCAN HAMILTON

**Products:** digital computer equipment for process information and control systems; special and linear monolithic integrated circuits; digital to video information display systems, graphical medical displays; line tracing systems for automatic contour control of gas and plasma cutting machines, nibbling and routing machines; sonar and radar systems; radar test equipment, airborne and ground; steered stabilized platforms for TV, film and electronic surveillance devices; satellite ground station subsystems; electronic assembly sub-con-

Electronics Equipment and Systems Section (Con't.)

tract manufacturing and development services; technical writing, cataloguing and illustrating services.

**WHITE ELECTRONIC  
DEVELOPMENT CORPORATION  
(1966) LIMITED**

3041 Universal Drive  
Mississauga, Ontario, Canada  
Tel: (416) 625-5400  
Telex: 06-961334

**Products:** language laboratories; tape decks.

## components section

### **AEROVOX CANADA LIMITED**

P.O. Box 36  
Amherst, Nova Scotia, Canada  
Tel: (902) 667-3886  
TWX: 610-272-4465

**Products:** fixed capacitors-oil.

### **ALMAX CERAMIC INDUSTRIES LTD.**

31 Kent Street East  
Lindsay, Ontario, Canada  
Tel: (705) 324-5100

**Products:** piezoelectric ceramic elements; coprecipitation of electronic ceramic raw powders such as lead zirconate, lead titanate; compositions made up to meet special requirements.

### **AMPHENOL CANADA LIMITED**

44 Metropolitan Road  
Scarborough, Ontario, Canada  
Tel: (416) 291-4401  
TWX: 610-492-4379

**Products:** filtered power connectors; printed circuit connectors; power connectors; RF cable; CATV cables and connectors; RF connectors; miniaturization of connectors; bracket panel connectors; DK whip antenna (mobile communications); precision potentiometers, trimmers, variable resistors; tool room equipped to rework connectors and for prototype work; tube sockets; telephone components; customized cable harnesses.

### **ANRO ELECTRONIC INDUSTRIES LTD.**

300 Wildcat Road  
Downsview, Ontario, Canada  
Tel: (416) 661-2607

**Products:** relays; solenoids; toroids; potted RF transformers; timers; various custom electronic components.

### **ARROW-HART OF CANADA LTD.**

81 Industry Street  
Toronto, Ontario M6M 4L6, Canada  
Tel: (416) 762-1101  
Telex: 06-217824

**Products:** illuminated push button stations and pilot lights; low power relays and contactors; specialty switches including tumbler and rotary types; industrial wiring devices.

### **AUDIO MAGNETICS CORPORATION OF CANADA LTD.**

P.O. Box 902, Station U  
800 Islington Avenue South  
Toronto 18, Ontario, Canada  
Tel: (416) 252-3531  
Telex: 02-29843

**Products:** complete line of magnetic tape products — cassettes; eight-track cartridges; reel to reel.

### **AUDIO TRANSFORMER COMPANY LIMITED**

P.O. Box 220  
202 Regina Street North  
Waterloo, Ontario, Canada  
Tel: (519) 743-4351

**Products:** laminated iron core transformers.

### **AUSTIN INSULATOR DIVISION Decca Radar Canada (1967) Limited**

71 Selby Road  
Brampton, Ontario L6W 1Z5, Canada  
Tel: (416) 457-8720  
Telex: 02-2098  
Cable: DECRADAR TORONTO

**Products:** radio mast base insulators; radio mast guy insulators; lighting isolation transformers.

### **AUTOMATIC COIL MANUFACTURING LTD.**

50 Wingold Avenue  
Toronto 19, Ontario, Canada  
Tel: (416) 781-6174  
Telex: 02-2319  
Cable: ANCHOR

**Products:** snap-around volt-ohm-ammeters; miniature strip chart recorders, voltage testers; TV deflection components — yokes and horizontal output transformers.

### **AUTOMATIC WINDING CORP. LTD.**

300 Wildcat Road  
Downsview, Ontario, Canada  
Tel: (416) 661-2607

**Products:** RF and IF transformers; radio oscillators; chokes; peaking coils; convergence coils.

### **AVIONICS LIMITED**

P.O. Box 200  
Niagara-on-the-Lake, Ontario, Canada  
Tel: (416) 468-3632

**Products:** printed circuit boards; terminal boards; silk screening and precious metal plating; thermo-electric cooling elements; designs and assemblies circuit boards to customer specifications.

### **BAYLY ENGINEERING LIMITED**

120 Hunt Street  
Ajax, Ontario, Canada  
Tel: (416) 925-2126  
Telex: 02-2831

**Products:** electric filters and equalizers; telephone jacks.

### **BOSTON INSULATED WIRE AND CABLE COMPANY, LIMITED**

118 Shaw Street  
Hamilton, Ontario, Canada  
Tel: (416) 529-7151  
Telex: 021-684  
Cable: BOSWIRELTD

**Products:** television camera cables, connectors and terminated assemblies; custom multiconductor combination cables for space communication, ground station, geodetic survey, commercial and military radar applications; radiation resistant cables; underwater cables and molded assemblies for ASW and oceanographic applications.

### **BOWMAR CANADA LIMITED**

1267 Algoma Road  
Ottawa, Ontario K1B 3W7, Canada  
Tel: (613) 746-3100  
TWX: 610-562-1916

**Products:** solid-state light emitting device research, development and production for applications such as alphanumeric displays, film and paper annotation, failure warning and integral lighting lamps and card and tape readers; light emitting diodes (solid-state displays).

### **BREVEL PRODUCTS LIMITED**

1370 Birchmount Road  
Scarborough, Ontario, Canada  
Tel: (416) 751-2111

**Products:** sub-fractional h.p. motors.

### **BROY ENGINEERING LIMITED**

2672 St. Clair Avenue West  
Toronto, Ontario M6N 1M2, Canada  
Tel: (416) 763-1104

**Products:** yokes, convergence.

**BURNDY CANADA LTD.**

1530 Birchmount Road  
Scarborough, Ontario, Canada  
Tel: (416) 757-8761  
Telex: 02-2343

**Products:** single and multi-contact electronic connectors including compression terminals, miniature round, rack and panel and printed circuit connectors for standard and coaxial conductors; matched installation tooling, both hand and automatic.

**CANADA WIRE AND CABLE COMPANY LIMITED  
Export Department**

147 Laird Drive  
Toronto 17, Ontario, Canada  
Tel: (416) 421-0440  
Telex: 02-2260  
Cable: CANWIRCO

**Products:** magnet wires, film insulated, fiber covered; communications and electronics wires and cables; Alucel cables, high frequency cables; hook-up wires; Teflon wires; coil lead wires; electrical wires and cables.

**CANADIAN ASTATIC LIMITED**

1820 Ellesmere Road  
Scarborough, Ontario, Canada  
Tel: (416) 291-6284

**Products:** microphones; phono cartridges; phono needles and tone arms.

**CANADIAN CABINETS & FURNITURE LTD.**

52 Allen Street West  
Waterloo, Ontario, Canada  
Tel: (519) SH5-1161

**Products:** television, stereo and speaker wooden cabinets.

**CANADIAN KITCRAFT ENTERPRISES LTD.**

1638 Cyrville Road  
Ottawa, Ontario, Canada  
Tel: (613) 749-0717

**Products:** loudspeakers, headsets.

**CANADIAN MARCONI COMPANY**

2442 Trenton Avenue  
Montreal 301, Quebec, Canada  
Tel: (514) 343-3411  
Telex: 01-2260  
TWX: 610-421-3564  
Cable: ARCON Montreal

**Products:** multilayer printed circuit boards; hybrid microcircuits; four terminal networks; AF and RF filters, chokes and transformers; power transformers.

**CANADIAN RESEARCH INSTITUTE**

85 Curlew Drive  
Don Mills, Ontario, Canada  
Tel: (416) 445-6363

**Products:** precision wire wound resistors; panel meters; contactless contact meters; modular power supplies; printed circuit assemblies (plug-in, modular and encapsulated); current transformers; shunts, rheostats (carbon pile).

**CANADIAN STACKPOLE LIMITED**

550 Evans Avenue  
Toronto 14, Ontario, Canada  
Tel: (416) 255-2373  
TWX: 610-492-2565

**Products:** fixed composition resistors; carbon products; powder metal parts.

**CAPACITORS OF CANADA (1968) LIMITED**

40 Upton Road  
Scarborough, Ontario, Canada  
Tel: (416) 755-2216

**Products:** miniature flat Mylar dielectric capacitors; paper ceramic case tubular capacitors; Mylar dipped capacitors; Mylar paper dipped capacitors; printed circuit Mylar capacitors.

**CARTREX ELECTRONICS LIMITED**

10595 Racette  
Montreal 460, Quebec, Canada  
Tel: (514) 321-8900

**Products:** magnetic recording tape-audio.

**CENTRALAB CANADA LIMITED**

106 McMaster Avenue  
Ajax, Ontario, Canada  
Tel: (416) 925-4124  
TWX: 610-384-2812

**Products:** ceramic disc capacitor; rotary switches; variable potentiometers; packaged electronic circuits.

**CERCAST INC.**

3905 Industrial Street  
Montreal North 459, Quebec, Canada  
Tel: (514) 322-2371

**Products:** precision investment castings of non-ferrous alloys.

**CIRCUIT GRAPHICS LIMITED**

8243 Main Street  
Vancouver 15, British Columbia, Canada  
Tel: (604) 324-2130

**Products:** printed circuit boards.

**CLARE C. P. OF CANADA LTD.  
A Division of General Instrument of Canada Ltd.**

61 Industry Road  
Toronto 15, Ontario, Canada  
Tel: (416) 762-8154  
Telex: 02-29478

**Products:** cable harness; relays.

**COLLBEN MANUFACTURING COMPANY  
Division of Reform Products Ltd.**

5 Thorpe Street  
Dundas, Ontario, Canada  
Tel: (416) 628-6913

**Products:** TV, FM, amateur and commercial antennas; TV trailer antenna kit.

**COLUMBIA RESEARCH LTD.**

120 East Cordova Street  
Vancouver 4, British Columbia, Canada  
Tel: (604) 684-4131  
Telex: 04-55482  
Cable: KRISTLS

**Products:** quartz crystals in frequency range 1 MHz to 150 MHz.

**COM DEV LTD.**

6 Ronald Drive  
Montreal West  
Montreal 263, Quebec, Canada  
Tel: (514) 486-7339

**Products:** microwave components.

**CONSTANTA CO. OF CANADA LTD., THE**

280 Regina Avenue  
Montreal 203, Quebec, Canada  
Tel: (514) 766-8569  
Cable: KONSTANTA

**Products:** precision film resistors

## Components Section (Con't.)

including deposited carbon, metal, high voltage, high frequency and micro-wave; ultra low ohm ribbon resistors; resistor networks; temperature sensors.

### **CRAMCO SOLDER ALLOYS**

80 Sinnott Road  
Scarborough, Ontario, Canada  
Tel: (416) 757-2876

**Products:** perfect, tiny spheres of solder; high purity solders; fluxes.

### **CROVEN LTD.**

500 Beach Street  
Whitby, Ontario, Canada  
Tel: (416) 668-3325  
TWX: 610-384-2750

**Products:** quartz crystals; crystal filters; crystal oscillators; magnetic circuit breakers.

### **CTS OF CANADA LIMITED**

P.O. Box 280  
80 Thomas Street  
Streetsville, Ontario, Canada  
Tel: (416) 826-1141  
Cable: INDELEC

**Products:** variable resistors; selector switches; trimming potentiometers; crystals; filters; photo-electric controls; rectifiers; inverters; microminiature components and circuit packages.

### **DALE ELECTRONICS CANADA LTD.**

18 Howden Road  
Scarborough, Ontario, Canada  
Tel: (416) 759-5631  
TWX: 610-492-1381  
Cable: DALOHM

**Products:** resistors — precision wire wounds, industrial wire wounds (fixed and adjustable with silicone or vitreous enamel coatings); trimmer and precision potentiometers; connectors; wire wound packaged networks.

### **DECOR METAL PRODUCTS LIMITED**

1 Bay Street East  
Midland, Ontario, Canada  
Tel: (705) 526-5451

**Products:** extruders of aluminum trim and heat sinks; designers and manufacturers of anodized or painted decorative extruded and sheet aluminum trim.

**DESITRON COMPANY LIMITED**  
3135 Universal Drive  
Mississauga, Ontario LX4 2E7, Canada  
Tel: (416) 625-4605

**Products:** microwave products for marine and communication purposes; isolators; circulators; switches; flanges; standard plumbing; thick and thin film hybrid microcircuits.

### **DIGITAL COMPONENTS LIMITED**

P.O. Box 780  
Hammond Plains Road  
Bedford, Nova Scotia, Canada  
Tel: (902) 826-2161

**Products:** industrial micro-machined parts for consumer, electronic, automotive industries; hybrid connector and other hybrid devices including point-to-point wiring systems for computer industry; digital telemetry; ultra miniature connectors.

### **EASTERN WIRE AND CONDUITS LIMITED**

266 Rexdale Boulevard  
Rexdale, Ontario, Canada  
Tel: (416) 248-6291  
Telex: 02-21618  
Cable: INDUSTRIAD

**Products:** flexible electric conduits.

### **ELCO CONNECTORS (CANADA) LTD.**

32 Mobile Drive  
Toronto 16, Ontario, Canada  
Tel: (416) 752-1800  
TWX: 610-492-1398  
Cable: CANELCO

**Products:** electronic connectors; card edge connectors; back panel assemblies.

### **ELECTROHOME LIMITED Motor Division**

505 Conestoga Boulevard  
Cambridge (Galt), Ontario, Canada  
Tel: (519) 623-6130

**Products:** sub-fractional h.p. motors.

### **ELECTRONIC CRAFTSMEN**

73 Schaefer Street  
Waterloo, Ontario, Canada  
Tel: (519) 884-2210

**Products:** electrical and electronic coils and transformers; these com-

ponents are encapsulated by liquid epoxy casting or transfer molding with epoxy powder.

### **ELECTRONIC HARDWARE SPECIALTIES LTD.**

175 Eileen Avenue  
Toronto, Ontario M6N 1W3, Canada  
Tel: (416) 766-0510  
TWX: 610-491-1910

**Products:** wire wound resistors, rheostats, relays.

### **ELECTRONIC ILLUMINATION LTD.**

2220 Midland Avenue  
Agincourt, Ontario, Canada  
Tel: (416) 291-9252

**Products:** edge-lighted panels and dials to meet MIL-P-7788D military specifications; precision machining of plastics; finishing, photo processing and silk screening.

### **EL-MET PARTS LTD.**

47 Head Street  
Dundas, Ontario, Canada  
Tel: (416) 628-6366  
Telex: 021-8207

**Products:** cold rolled, silicon and nickel steel laminations for electromagnetic devices such as motor laminations, fluorescence and mercury ballast laminations and E&I laminations; distributed gap wound cores; C-cores; toroids; shielding materials, allied products and specialty magnetic annealing and hydrogen annealing.

### **EMERSON ELECTRIC CANADA LIMITED**

Napanee, Ontario, Canada  
Tel: (613) 354-2127

**Products:** sub-fractional h.p. motors.

### **EPITEK ELECTRONICS LTD.**

19-10 Grenfell Crescent  
Ottawa, Ontario K2G 0G3, Canada  
Tel: (613) 825-3911

**Products:** custom thick film hybrid microcircuits; epichip microcircuit kit voltage regulators; audio amplifiers.



**ERIE TECHNOLOGICAL  
PRODUCTS OF CANADA LIMITED**

5 Fraser Avenue  
Trenton, Ontario K8V 5A9, Canada  
Tel: (613) 392-2581  
Telex: 06-62242

**Products:** ceramic capacitors — disc; EMI suppression filters — low pass; AC power line low pass filters; custom design low pass filters; high voltage rectifiers; full wave bridge rectifiers; high voltage multipliers; high voltage power supplies.

**ESE LIMITED**

1780 Albion Road  
Rexdale, Ontario, Canada  
Tel: (416) 749-2271

**Products:** equalizers, delay and amplitude; filters, audio frequency-passive or active.

**ESNA LIMITED**

P.O. Box 250  
10 Esna Park Drive  
Agincourt, Ontario, Canada  
Tel: (416) 499-1221  
Telex: 02-21671

**Products:** relays — electro-pneumatic and solid-state time delay, general purpose, power, reed; stepping switches with time delay; counters; fluidic time delay; fluid power time delay.

**FABRICON MANUFACTURING  
LIMITED**

107 Ragg Street  
Trenton, Ontario, Canada  
Tel: (613) 392-1291

**Products:** communication and electronic cables; high frequency cables; interphone cable; coaxial cable; hookup wire-thermoplastic crosslink, polyethylene and crosslink vinyl electrical wire and cable.

**FERRANTI-PACKARD LIMITED**

121 Industry Street  
Toronto 15, Ontario, Canada  
Tel: (416) 762-3661  
TWX: 610-491-1434

**Products:** status indicators; electro-magnetic display modules, 2.7, 4.1, 12 and 18 inch character height (5x7 dot matrix); one inch high 7 bar electro-magnetic display modules.

**FERRITRONICS LIMITED**

222 Newkirk Road  
Richmond Hill, Ontario, Canada  
Tel: (416) 889-7313

**Products:** high quality electric wave filters — active and passive from 1 Hz to 100 MHz; tone systems — encoders and decoders from 60 Hz to 10 kHz; wide band and pulse transformers for applications from 50 Hz to 100 MHz; double balanced mixers up to 100 MHz; precision indicators — ferrite and toroid.

**FRANKLIN ELECTRIC OF  
CANADA LTD.**

P.O. Box 250  
Strathroy, Ontario, Canada  
Tel: (519) 245-0151

**Products:** sub-fractional h.p. motors.

**GARRETT MANUFACTURING  
LIMITED**

**Microelectronics Products**  
40 Voyager Court Road North  
Rexdale, Ontario, Canada  
Tel: (416) 677-9790

**Products:** standard and custom designed hybrid microcircuits (thick and thin film) for military, industrial and consumer products, package configurations include hermetically sealed units, dual in-line, various tooled transfer mould units and fluid bed and liquid dip encapsulation. The above configurations comprise discrete, chip and wire, and beam lead or Satan component techniques, and multilayer substrates.

**GELECO ELECTRONICS LTD.**

Unit 43, 2 Thorncliffe Park Drive  
Toronto 17, Ontario, Canada  
Tel: (416) 421-5631

**Products:** RF edgewound coils; RF tube coils; RF contactors; tower lighting chokes; lightning chokes; MMB heavy duty switches; plug-in meter inserts; phase sampling loops; complete antenna tuning and phasing equipment; broadcast antenna and studio design.

**GENERAL INSTRUMENT  
OF CANADA LTD.**

151 Weber Street South  
Waterloo, Ontario, Canada  
Tel: (519) 744-8101  
TWX: 610-365-3415

**Products:** IF and RF transformers; auto

radio tuners; deflection components; electro-mechanical sub-assembly work on a sub or prime contract basis; solid-state speed controls.

**GENERAL MAGNETIC PRODUCTS  
OF HAWKESBURY LIMITED**

P.O. Box 188  
140 John Street  
Hawkesbury, Ontario, Canada  
Tel: (613) 632-2755  
TWX: 610-423-1994

**Products:** custom manufactured AF, IF and RF coils; toroids; solenoids; VHF coils; open shielded, molded and encapsulated coils; transformers; chokes.

**GENERAL PRECISION  
INDUSTRIES LTD.**

P.O. Box 88  
32 Brome Street  
Place Bonaventure  
Montreal 114, Quebec, Canada  
Tel: (514) 866-8395

**Products:** decade switches; frequency synthesizers; custom made electro-mechanical assemblies; DF antennas.

**GRAPHICO PRECISION  
WORKS LTD.**

1100 Bellamy Road North  
Scarborough, Ontario, Canada  
Tel: (416) 438-6076  
TWX: 610-492-4371

**Products:** printed circuit boards; terminal boards; photo-etched panels, dials and pointers; metal and plastic components; precision fabricated sheet metal parts; laminated heater strips; electro-formed parts; chemically milled parts; PC boards to military specifications; flexible PC boards; multi-layer PC boards. Services: silk screen processing; photo-etching; epoxy resin casting and encapsulating; engraving; profiling; chemical milling; plating; metal finishing; product engineering.

**GTE AUTOMATIC ELECTRIC  
(CANADA) LIMITED**

100 Strowger Boulevard  
Brockville, Ontario KCV 5J9, Canada  
Tel: (613) 342-6621  
Telex: 026-3532  
TWX: 610-525-1061  
Cable: GENTELINT BROCKVILLE

**Products:** telephone dials; telephone arresters and protectors; loading coils;

## Components Section (Con't.)

flexicore transformer; industrial relays and switches; telephone relays; printed wiring cards and assemblies; pole line hardware and cable splicing materials.

### **HAMILTON ENGRAVING COMPANY LTD.**

P.O. Box 181, Station B  
24 Clark Street  
Hamilton, Ontario, Canada  
Tel: (416) 527-0718

**Products:** design of printed circuit boards; printed circuit boards; specialty plating — precious metals; machine engraving.

### **HAMMOND MANUFACTURING COMPANY LIMITED**

394 Edinburgh Road North  
Guelph, Ontario, Canada  
Tel: (519) 822-2960  
Telex: 0295-6523

**Products:** transformers; chokes; saturable reactors; magnetic amplifiers; toroidal devices; sheet metal cabinets, consoles, cubicles, racks, chassis — in all ranges and sizes for the electronics and electrical industries.

### **HARPER OAK LTD.**

P.O. Box 100  
155 Edward Street  
Aurora, Ontario, Canada  
Tel: (416) 727-3191  
Telex: 06-217890

**Products:** rotary switches, electrical and electronic; thermostats and infinite energy regulators.

### **HYLOGIC LTD.**

70 Brunswick Boulevard  
Dollard des Ormeaux, Quebec, Canada  
Tel: (514) 683-9555

**Products:** printed circuit boards; electro-mechanical subassemblies.

### **ITT CANNON ELECTRIC CANADA A Division of ITT Canada Limited**

4 Cannon Court  
Whitby, Ontario, Canada  
Tel: (416) 668-8881  
Telex: 02-2250

**Products:** multi-contact connectors for commercial, industrial, military and aircraft use.

### **JARRY ELECTRONICS LIMITED**

305 Laurier Street  
Hawkesbury, Ontario, Canada  
Tel: (613) 632-2751  
TWX: 610-423-1990

**Products:** IF and RF coils; pulse transformers; toroidal audio transformers; filters; reed relays; ultra-fine insulated magnet wire.

### **JOHNSON, MATTHEY AND MALLORY LTD.**

110 Industry Street  
Toronto 15, Ontario, Canada  
Tel: (416) 763-5111  
Cable: MATTHEY

**Products:** complete range of aluminum and tantalum electrolytic capacitors for all applications, electro-mechanical tuning devices.

### **LAKE ENGINEERING CO. LIMITED**

123 Manville Road  
Scarborough, Ontario, Canada  
Tel: (416) 751-5980  
Telex: 02-2684

**Products:** design of printed circuit boards; precision printed circuits; terminal boards; precision electroplating; electro-forming.

### **LAZER-TECH LTD.**

1600 Brimley Road  
Agincourt, Ontario, Canada  
Tel: (416) 293-3520

**Products:** printed circuit boards.

### **LINDSAY SPECIALTY PRODUCTS LTD.**

50 Mary Street West  
Lindsay, Ontario, Canada  
Tel: (705) 324-2196

**Products:** VHF and UHF domestic and CATV antennas; CATV line splitters and couplers; CATV directional multi-taps; complete line of CATV passive devices including matching transformers; printed circuit connectors.

### **LINEAR TECHNOLOGY INC.**

P.O. Box 1054  
Hamilton, Ontario L8N 3R4, Canada  
Tel: (416) 528-1461

**Products:** special and linear monolithic integrated circuits.

### **MAGNA ELECTRONICS CORPORATION LIMITED**

1480 Birchmount Road  
Scarborough, Ontario, Canada  
Tel: (416) 757-2881

**Products:** precision gears; precision machined mechanical components; aluminum dipped brazed components; heat exchangers; welded components; beryllium precision machined components; precision sheet metal chassis and components fabricated from aluminum, magnesium or steel; deep drawn components; anodizing and chemical film for aluminum and magnesium; spray painting to military specifications.

### **MAGNETIC METALS OF CANADA LIMITED**

P.O. Box 1114  
10 Spalding Drive  
Brantford, Ontario, Canada  
Tel: (519) 753-8675  
TWX: 610-379-0107

**Products:** silicon and nickel transformer laminations; motor laminations; distributed gap cores; custom heat-treating.

### **MICRO-COM ELECTRONICS LTD.**

P.O. Box 39  
802 Park Avenue  
Beausejour, Manitoba, Canada  
Tel: (204) 268-2574

**Products:** cordless microphones and systems; X-line solid-state modules for hobby and educational purposes.

### **MICROSYSTEMS INTERNATIONAL LIMITED**

P.O. Box 3529, Station C  
Ottawa, Ontario, Canada  
Tel: (613) 828-9191  
TWX: 610-562-1910

**Products:** bipoplar and digital ICS; MOS LSI silicon gate — RAMs, ROMs, shift registers; hybrid micro-electronic subsystems — thin and thick film.

### **MICROWAVE INSTRUMENTS AND COMPONENTS INC.**

6600-6610 Bombardier Street  
Montreal 458, Quebec, Canada  
Tel: (514) 321-3680  
TWX: 610-421-3301

**Products:** precision waveguide com-

## Components Section (Con't.)

ponents; band pass and low pass filters, precision electroformed components.

### **MITEL CANADA LIMITED**

P.O. Box 1089  
Kanata, Ontario K0A 2C0, Canada  
Tel: (613) 836-2118  
Cable: MITELCAN

**Products:** tone receivers, tone generators, tone ringers, and low level PABX signalling system.

### **MULTI-STATE DEVICES LTD.**

1330 South Service Road  
Trans-Canada Highway  
Dorval 70, Quebec, Canada  
Tel: (514) 683-6331  
Telex: 05-25160 SEI MTL

**Products:** solid-state relays; solid-state circuit breakers; circuit overload protectors; thermal sensors; solid-state liquid level control systems.

### **NATIONAL SEMICONDUCTORS LIMITED**

2150 Ward Street  
Montreal 378, Quebec, Canada  
Tel: (514) 744-5507  
Cable: NATSEMICO

**Products:** cadmium sulphide photoconductive cells; cadmium selenide photoconductive cells; silicon photodiodes; photocell lamp assemblies; special photoelectric transducers; silicon phototransistors; photoelectric arrays; optocouplers; gallium phosphide LEDs.

### **NEOSID (CANADA) LIMITED**

10 Vansco Road  
Toronto 18, Ontario, Canada  
Tel: (416) 251-2831  
Cable: NEOSID

**Products:** electronic powdered iron and ferrite core components; microwave materials.

### **NORTH AMERICAN MICROCIRCUITS LTD.**

286 Arvin Avenue  
Stoney Creek, Ontario, Canada  
Tel: (416) 662-1616

**Products:** custom hybrid circuits; resistance networks; precision high voltage dividers; CATV attenuators.

### **NORTHERN ELECTRIC COMPANY LIMITED Spare Parts and Special Products Division**

P.O. Box 2110  
St. Laurent, Montreal, Quebec H4L 4Y7  
Canada  
Tel: (514) 747-5551  
TWX: 610-421-3634

**Products:** ferrites, pot cores — international standards; silicon carbide varistors; polystyrene and Mylar capacitors; miniature relays; wire spring relays; printed circuit board assemblies; jacks, keys, plugs, connectors, general telephone apparatus and components.

### **NOVATRONICS OF CANADA LIMITED**

P.O. Box 610  
677 Erie Street  
Stratford, Ontario, Canada  
Tel: (519) 271-3880  
TWX: 610-355-8717

**Products:** small high performance stepper motors and controllers for indication and control functions; in-line servo assemblies; gimbal components such as gyro stators; digital indicators for airborne applications; high response industrial stepper motors and drives for automatic positioning; servo motors and synchros; precision electro-mechanical components.

### **OSBORNE ELECTRIC COMPANY LIMITED**

95 Wesley Street  
Toronto 18, Ontario, Canada  
Tel: (416) 259-7886  
Cable: OSELECT

**Products:** epoxy molded neutralizing transformers; multi-circuit neutralizing transformers; communications coupling protectors; isolating and drainage transformers.

### **O & W ELECTRONICS LIMITED**

28 Rolark Drive  
Scarborough, Ontario, Canada  
Tel: (416) 291-8821  
Telex: 02-2081  
Cable: OKITOR

**Products:** micro and large display modules; resistor networks; edge-lighted panels and dials to military specifications and pointers; escutcheons.

### **PAN CANADA MAGNETICS LIMITED**

1072 Rangeview Road  
Port Credit, Ontario, Canada  
Tel: (416) 278-9851

**Products:** audio magnetic recording tape.

### **PHILLIPS CABLES LIMITED**

550 King Street West  
Brockville, Ontario K6V 3T2, Canada  
Tel: (613) 345-5666  
Telex: 026-3512  
Cable: PHILELEC

**Products:** Stalpeth; Alpeth; coaxial cable, CATV cable, magnet wire and all other types of wire and cable for the electrical and communication industries.

### **PHILIPS ELECTRONICS INDUSTRIES LTD. Electron Devices Division**

116 Vanderhoof Avenue  
Toronto, Ontario M4G 2J1, Canada  
Tel: (416) 425-5161  
Telex: 06-22221  
TWX: 610-491-1546

**Products:** quartz crystals; television and stereo wooden cabinets.

### **POLYGON INDUSTRIES LIMITED**

50 Northline Road  
Toronto 16, Ontario, Canada  
Tel: (416) 755-3301  
Telex: 02-29535

**Products:** standard dry type transformers; rectifier transformers; furnace transformers; custom engineered transformers; saturable reactors.

### **PRECISION ELECTRONIC COMPONENTS (1971) LTD.**

19 Hafis Road  
Toronto 385, Ontario, Canada  
Tel: (416) 249-7103  
TWX: 610-492-1341

**Products:** variable resistors and trimmer potentiometers, non wire wound; hot moulded and cermet safety controls.

### **QUALITY COMMUNICATION PRODUCTS LTD.**

P.O. Box 1257  
239 South Mountain Street  
Morden, Manitoba, Canada  
Tel: (204) 822-4431

**Products:** telephone loading coils; telephone repeaters; toroidal coils; capacitors; R-C-L filters; special telephone coils and transformers; printed circuit boards.

**QUALITY HERMETICS LIMITED**

45 Hollinger Road  
Toronto 374, Ontario, Canada  
Tel: (416) 757-2869

**Products:** glass-to-metal hermetic seals; stand-offs; multi-terminal headers; crystal, transistor and diode bases and end seals; oxygen probe.

**RADIO SPEAKERS OF CANADA LIMITED**

221 Norseman Street  
Toronto 570, Ontario, Canada  
Tel: (416) 231-7243  
Telex: 02-2992

**Products:** hi-fi unitary loudspeakers and enclosures; loudspeakers for professional or commercial sound applications.

**RAPID GRIP AND BATTEN, LTD.**

181 Richmond Street West  
Toronto 133, Ontario, Canada  
Tel: (416) 368-4771

**Products:** chemically milled custom components; photo-etched panels; lead frames; masks; apertures; heaters; parts for fluidic controls; opto and electro-mechanical devices; electro-forming of precision molds, dies, screens and other components from nickel and copper.

**RAYTHEON CANADA LIMITED**

400 Phillip Street North  
Waterloo, Ontario, Canada  
Tel: (519) 745-6831  
Telex: 029-5431  
TWX: 610-365-3469  
Cable: RAYCAN

**Products:** printed circuit modules; microwave components.

**RCA LIMITED**

21001 North Service Road  
Trans-Canada Highway  
Ste. Anne de Bellevue 810, Quebec  
Canada  
Tel: (514) 453-9000  
Telex: 01-2522

**Products:** miniature electron and color

picture tubes; television yokes; flyback transformers and tuners; laminated transformers; loudspeakers; silicon photosensors; indoor antennas; television and stereo wooden cabinets.

**RDC INDUSTRIES LTD.**

8460 Darnley Road  
Montreal 307, Quebec, Canada  
Tel: (514) 733-7181

**Products:** printed circuit boards, edge-lighted panels, dials and instruments to military specifications; electronic assemblies.

**RD SYSTEMS OF CANADA LIMITED**

128 Pears Avenue  
Toronto, Ontario M5R 1T2, Canada  
Tel: (416) 925-3811

**Products:** electronic parabolic microphones.

**RENFREW ELECTRIC COMPANY LIMITED**

349 Carlaw Avenue  
Toronto 252, Ontario, Canada  
Tel: (416) 461-3511  
Telex: 02-2450

**Products:** resistors — carbon composition, precision wire wound, power wire wound (fixed and adjustable), molded wire wound; thick film metal glaze, variable carbon and wire wound controls; time delay and industrial relays; wiring devices including wall plates; connectors — flat pin and printed circuit board; terminal strips — barrier.

**SHELLCAST FOUNDRIES INC.**

10540 Lamoureux Street  
Montreal North 460, Quebec, Canada  
Tel: (514) 322-3760

**Products:** investment castings.

**SILTEK INTERNATIONAL LIMITED**

Airport Industrial Park  
Bromont, Quebec, Canada  
Tel: (514) 534-2255  
Telex: 610-532-6566

**Products:** CMOS digital integrated circuits.

**SINCLAIR RADIO LABORATORIES LIMITED**

122 Rayette Road  
Concord, Ontario, Canada  
Tel: (416) 669-1244

**Products:** antennas and filters for radio communications; auto-tuned filters; multi-couplers and antenna matching couplers; special antennas and filter systems for airports.

**SMALLWOOD S. G. LTD.**

391-397 King Street East  
Kitchener, Ontario, Canada  
Tel: (519) 745-9583

**Products:** coils, RF and IF; solenoids; toroidal; flyback transformers; bobbin windings and components for radio-television and electronic industries.

**C. R. SNELGROVE CO. LIMITED**

141 Bond Avenue  
Don Mills 404, Ontario, Canada  
Tel: (416) 447-8531  
Telex: 06-966-626  
TWX: 610-492-1354  
Cable: SNELCRSTL

**Products:** quartz crystals; temperature controlled crystal ovens; crystal filters; monolithic filters; packaged oscillators; frangible switches.

**SPACE CIRCUITS LTD.**

156 Roger Street  
Waterloo, Ontario, Canada  
Tel: (519) 742-5896

**Products:** printed circuits; terminal panels; precision screens; chemically milled parts.

**SPILSBURY & TINDALL LTD.**

120 East Cordova Street  
Vancouver, British Columbia, Canada  
Tel: (604) 684-4131  
Telex: 04-55482  
Cable: SPILTIN VANCOUVER

**Products:** tuneable whip antennas; antenna tuning units.

**SPRAGUE ELECTRIC OF CANADA LIMITED**

10 Bertal Road  
Toronto 337, Ontario, Canada  
Tel: (416) 766-6123  
Telex: 02-29930  
Cable: TELEFARAD

**Products:** electrolytic capacitors including aluminum foil, dry sintered solid tantalum, miniature aluminum.

**STEGG ELECTRIC LTD.**

P.O. Box 211  
294 University Avenue  
Belleville, Ontario K8N 5A2, Canada  
Tel: (613) 962-9633

**Products:** miniature electromagnetic relays; specialized automatic screw machine components for electronic industry.

**STRITE INDUSTRIES LIMITED**

298 Oak Street  
Hespeler, Ontario, Canada  
Tel: (519) 658-9361

**Products:** ultra-precision-machined components for the electronic industry; microwave tube components; mechanical computer components; guidance system components; electronic heat sinks.

**SUPERIOR CONTINENTAL CANADA LTD.**

P.O. Box 694  
1131 Erie Street  
Stratford, Ontario, Canada  
Tel: (519) 271-9200  
TWX: 610-355-8713

**Products:** loading coil assemblies; build-out-capacitor units; telephone station connecting blocks, telephone jacks, 8A buzzers, portable telephone plugs, outdoor wire terminals.

**SUPERIOR ELECTRONICS INDUSTRIES LTD.**

1330 South Service Road  
Trans-Canada Highway  
Dorval 740, Quebec, Canada  
Tel: (514) 683-6331  
Telex: 05-25160 SEI MTL

**Products:** black and white picture tubes; color picture tubes; electron gun mounts for both black and white and color TV tubes.

**SYNTRON (CANADA) LIMITED**

P.O. Box 10  
928 Queenston Road  
Stoney Creek, Ontario, Canada  
Tel: (416) 662-8313

**Products:** vibratory feeders; vibrating screens; vibrators; selenium and silicon rectifier stacks; power conversion units; automotive diodes; DC motor controls.

**VALERIOTE ELECTRONICS (GUELPH) LTD.**

P.O. Box 603  
Guelph, Ontario, Canada  
Tel: (519) 824-3220

**Products:** coils; transformers; modules; matching transformers; filters; antennas; cable assemblies; aluminum and steel masts; tool and die; pattern shop; FRP filament winding; FRP hand and press molding; rubber moldings; plastics; antennas — fiberglass whip.

**VARIAN ASSOCIATES OF CANADA LTD.**

45 River Drive  
Georgetown, Ontario, Canada  
Tel: (416) 457-4130  
Telex: 069-7502  
TWX: 610-492-2641

**Products:** microwave tubes — klystrons, travelling wave tubes, magnetrons; power supplies — travelling wave tubes and klystrons.

**VESTSHELL INC.**

10351 Pelletier Street  
Montreal North 459, Quebec, Canada  
Tel: (514) 322-2371

**Products:** precision investment casting of ferrous alloys.

**VORTEX DESIGN LTD.**

P.O. Box 2320  
Steinbach, Manitoba, Canada  
Tel: (204) 326-6405

**Products:** printed circuit boards.

**WARD AUTOMOTIVE ELECTRONICS OF CANADA LIMITED**

50 Wingold Avenue  
Toronto, Ontario M6B 1P7, Canada  
Tel: (416) 789-1167

**Products:** indoor TV antennas, car radio antennas.

**WELKIN MANUFACTURING CO. LTD.**

824 Deslauriers Street  
Montreal 379, Quebec, Canada  
Tel: (514) 236-8311

**Products:** investment castings.

**WELWYN CANADA LIMITED**

P.O. Box 2484  
1255 Brydges Street  
London, Ontario, Canada  
Tel: (519) 451-9490  
Telex: 024-843  
Cable: WILBAC

**Products:** precision and semi-precision resistors — tin oxide, metal film, carbon film, ultra high, ultra low and standard values.

**WESTINGHOUSE CANADA LIMITED**

P.O. Box 510  
Hamilton, Ontario L8N 3K2, Canada  
Tel: (416) 528-8811  
Telex: 02-1655  
TWX: 610-371-0246  
Cable: WESTCAN HAMILTON

**Products:** monochrome and color picture tubes.

**WILL-HART LTD.**

1220 Ellesmere Road  
Scarborough, Ontario, Canada  
Tel: (416) 291-2123  
Telex: 06-22848

**Products:** edge-lighted panels to military specifications; escutcheons.

## consumer products section

### **CANADIAN ADMIRAL CORPORATION LTD.**

501 Lakeshore Road  
Port Credit, Ontario L5G 4N5, Canada  
Tel: (416) 278-5561  
Telex: 06-961138

**Products:** monochrome and color television receivers; radio receivers; phonos; portable and console stereos.

### **CANADIAN GENERAL ELECTRIC COMPANY LIMITED**

#### **Home Entertainment Center**

830 Lansdowne Avenue  
Toronto, Ontario M6H 4E5, Canada  
Tel: (416) 534-6511  
Telex: 02-2057  
Cable: GELECTRON

**Products:** monochrome and color television receivers; record players.

### **DORCHESTER ELECTRONICS LIMITED**

40 Fima Crescent  
Toronto, Ontario M8W 3P9, Canada  
Tel: (416) 252-6301

**Products:** portable stereo record players, speaker systems.

### **ELECTROHOME LIMITED**

809 Wellington Street North  
Kitchener, Ontario N2G 4J6, Canada  
Tel: (519) 744-7111  
Telex: 029-5449  
Cable: DEIL

**Products:** stereo high-fidelity (cabinet and component units); monochrome and color television receivers; environmental (4-channel) sound systems; speaker systems; monochrome and color video monitors; ETV receiver/monitors; educational phonos.

### **FLEETWOOD CORPORATION**

5785 Paré Street  
Montreal, Quebec H4P 1S3, Canada  
Tel: (514) 731-3811  
Telex: 01-26169  
Cable: FLEETCORP

**Products:** monochrome and color television receivers; stereo high-fidelity combinations; record players.

### **MONTREAL PHONO COMPANY LIMITED**

4000 St. Patrick Street  
Montreal, Quebec H4E 1A4, Canada  
Tel: (514) 769-8557  
Cable: MONTPHON

**Products:** stereo high-fidelity combinations; record players.

### **MOTOROLA CANADA LIMITED Consumer and Automotive Products Division**

3125 Steeles Avenue East  
Willowdale 425, Ontario, Canada  
Tel: (416) 499-1441  
Telex: 02-29944  
Cable: MOTOROLA

**Products:** monochrome and color television receivers; auto radio receivers and tape decks.

### **PATTERSON INDUSTRIES LTD.**

7342 Winston Street  
Burnaby, British Columbia, Canada  
Tel: (604) 291-8678  
Telex: 043-54764

**Products:** speakers and component stands.

### **PHILCO-FORD OF CANADA LTD.**

900 Don Mills Road  
Don Mills, Ontario M3C 1V6, Canada  
Tel: (416) 444-2541  
Telex: 02-2237

**Products:** automobile radios; monochrome and color television receivers; stereo consoles; stereo components.

### **PHILIPS ELECTRONIC INDUSTRIES LTD.**

#### **Consumer Products Division**

116 Vanderhoof Avenue  
Toronto, Ontario M4G 2J1, Canada  
Tel: (416) 425-5161  
Telex: 02-2513  
Cable: PHILIND TORONTO

**Products:** color television receivers; stereo radio-phonograph combinations.

### **THE RADIUS COMPANY**

424 John Street  
Dunnville, Ontario N1A 2R2, Canada  
Tel: (416) 774-6510

**Products:** stereo speaker systems and cabinetry.

### **RCA LIMITED**

21001 North Service Road  
Trans-Canada Highway  
St. Anne de Bellevue, Quebec 3L3 H9X  
Canada  
Tel: (514) 453-9000  
Telex: 01-2522

**Products:** monochrome and color television receivers; chassis kits for export (NTSC, PAL and CCIR).

### **SHELBERN ELECTRONICS LTD.**

3737 Cote Vertu  
St. Laurent, Quebec H4R 1R4, Canada  
Tel: (514) 332-3411  
Telex: 05-24429  
Cable: Sheltronic

**Products:** radio stereo-phonos consoles.

### **SYMPHONIC ELECTRONIC CORPORATION**

10 Secard Street  
St. Therese, Quebec, Canada  
Tel: (514) 430-5510  
Telex: 01-83723

**Products:** portable record players; stereo high-fidelity combinations.

### **YORKVILLE SOUND LIMITED**

80 Midwest Road  
Scarborough, Ontario M1P 3A9, Canada  
Tel: (416) 751-8481  
TWX: 610-492-7252

**Products:** amplifiers and speaker systems for musical instruments; public address systems.

## consultants section (Engineering and Systems)

### ACRES INTERTEL LIMITED

151 Slater Street, Suite 400  
Ottawa, Ontario K1P 5H3, Canada  
Tel: (613) 236-0124  
Telex: 053-4209

**Services:** specialists in airport systems, telecommunications, navigational aids, computer systems and applications, information services. Domestic and international consulting specialists in all systems and phases pertaining to the generation, structure, organization, processing, transmission and distribution of information. Satellite, microwave relay, scatter, point-to-point for telephone, broadcast, TV, ETV, CATV. Education technology; navigation system; computer applications; market research; theoretical analyses, field surveys; feasibility and reliability studies; systems planning and design, system and equipment specifications, maintenance techniques; installation, test, acceptance and maintenance of systems inclusive of personnel training.

### ADGA LIMITED

#### Engineers and Systems Analysts

P.O. Box 227, Terminal A  
Ottawa 2, Ontario, Canada  
Tel: (613) 235-8677

**Services:** telecommunications and information systems specialists; terrestrial and satellite communications systems studies; preparation of plans and specifications for communications systems; advisory service on selection of equipment; reliability and maintainability studies and inspection services; installation, test and acceptance of radio and video systems for various applications.

### D. E. M. ALLEN & ASSOCIATES

3303 Portage Avenue  
Winnipeg, Manitoba R3K 0W7, Canada  
Tel: (204) 832-3050

**Services:** feasibility studies and reports for broadcast coverage and service in AM, FM and television; planning, design, adjustment and acceptance tests of broadcast transmitting installations and associated communications systems; design and adjustment of medium frequency broadcast antennas; frequency searches and frequency selection in broadcast portion of radio spectrum involving AM, FM and television; preparation of technical briefs, reports and submissions in support of frequency or channel utilization for broadcast purposes.

### BELL CANADA

1050 Beaver Hall Hill  
Montreal 1, Quebec, Canada  
Tel: (514) 870-1511  
TWX: 610-421-3649  
Cable: BELLPHONE MONTREAL

**Services:** consulting services for operating telephone companies including comprehensive coverage in all phases of communication planning, design and operation; company organization and administration; engineering planning and design; communication equipment and plant maintenance; traffic forecasting and operating; rates and tariffs; marketing; accounting; personnel administration; public relations; training of all types.

### BRISTOL AEROSPACE LIMITED

P.O. Box 874  
Winnipeg, Manitoba, Canada  
Tel: (204) 775-8331  
Telex: 03-5587  
TWX: 610-671-3598  
Cable: BRISAIRCO

**Services:** data acquisition studies in the fields of pollution, meteorology, hydrology, oceanography and machine diagnostics. Various methods of data acquisition are studied and recommendations made. Complete engineering services for sounding rocket payloads from feasibility studies to instrument development and test flight.

### CABLE CONSULTING SERVICES

1608 Truscott Drive  
Mississauga, Ontario, Canada  
Tel: (416) 822-0625

**Services:** management and engineering consultant services for all aspects of cable television distribution systems, including feasibility studies, cost projections and engineering design. The company has extensive experience in coaxial VHF systems and multipair HF systems, having been associated with the development of CATV in Canada and the United States for the last 20 years and with Rediffusion in Britain for six years.

### CANAC CONSULTANTS LTD.

P.O. Box 8100  
Floor 12 — CN HQ Building  
Montreal 101, Quebec, Canada  
Tel: (514) 877-4816  
Telex: 01-20250  
Cable: CONDIV

**Services:** Canadian National Railways, one of the largest transportation organizations in the world, and Air Canada, with 34 years experience in air transport, have combined their respective consulting branches in the formation of CANAC Consultants Ltd. Telecommunications services in the area of surface transportation include: planning systems, transmission, switching, engineering, radio, microwave, computer, data acquisition and transmission systems. In the field of air transportation, telecommunication services include: communications equipment and systems, data processing applications, both systems and programs, navigational aids and air traffic control. Operations and maintenance training services are available in both of the above fields.

### CANADIAN PACIFIC CONSULTING SERVICES LTD.

Windsor Station  
Montreal 101, Quebec, Canada  
Tel: (514) 861-6811  
Telex: 01-20316  
Cable: CANPAC MONTREAL

**Services:** consulting specialists in planning, system engineering, construction, operation and administration of general telecommunication services. Broad spectrum of services also available in respect to computer communication systems and railway signalling and communication systems.

### COMPUTEL SYSTEMS LTD.

1200 St. Laurent Boulevard  
Ottawa, Ontario K1K 3B8, Canada  
Tel: (613) 746-4353

**Services:** computer time sharing. Access to UNIVAC 1108 and IBM 360/65 is over-the-counter or via remote high or low speed terminals. Company's services are available to any customer wherever located. However, distance constraints impose cost restrictions making access normally practical only in North America. Company offers computing system consulting service, program design and writing services, and customer's programmers are supported by a technical consulting staff. Company supports application program packages in the econometric, statistical, mathematical and file management areas.

**DC-DATA COMMUNICATIONS LIMITED**

**Division of H. K. Davis & Associates Limited**

160 Duncan Mill Road  
Don Mills 405, Ontario, Canada  
Tel: (416) 449-4622

**Services:** specializing in applications of communications systems to use of data techniques for design, supervision, telemetering and performance monitoring. Areas of interest include airways systems, design of coaxial cable (CATV and data) distribution systems, equipment reliability studies, etc.

**H. K. DAVIS & ASSOCIATES LIMITED**

160 Duncan Mill Road  
Don Mills 405, Ontario, Canada  
Tel: (416) 449-4622

**Services:** feasibility, design, specification, supervision, test and total job management of specialized communications systems for education (ETV, audio-visual, resource centers, research labs, libraries, etc.); commercial broadcasting — FM radio studios and transmitting sites, VHF and UHF television stations, microwave networks, total operating systems; point-to-point HF and VHF, land and maritime communications system; acoustical studies; telecommunication and navigational facilities for airways and airports.

**DEMERS, GORDON, BABY LTD.**

1550 de Maisonneuve West  
Montreal, Quebec H3G 1N2, Canada  
Tel: (514) 935-7447  
Telex: 01-20612

**Services:** professional services in the telecommunication and computer fields; feasibility studies, systems concept and design, preparation of plans and specifications, analysis of bids from suppliers; project management, training of personnel and commissioning. Application experience acquired over the last 15 years is: microwave systems, switching, cable distribution, radio and television broadcasting stations, audio-visual systems, mobile communications systems; computer information storage and retrieval systems.

**DIGITAL METHODS LTD.**

1755 Woodward Drive  
Ottawa, Ontario K2C 0P8, Canada  
Tel: (613) 225-1171

**Services:** consulting engineering services in the field of computer systems and applications; methods analysis and management engineering; and aviation — including air traffic control and simulation studies.

**DIGITECH LIMITED**

441 Fifth Avenue Southwest  
Calgary, Alberta, Canada  
Tel: (403) 265-3484  
Cable: DIGITECH CGY

**Services:** specialized computer software programs or software for applications in the petroleum and minerals industries. These include large data file retrieval systems for mineral and petroleum exploration and production data, mapping and data analysis routines, data reduction and processing routines for geophysical field data, including gravity, magnetic, seismic and navigation data as well as engineering routines for petroleum production and reservoir operations. Provides data processing of customer data on service basis. Supplies consulting and training services in the design, installation and training for developing digital technology for industry or national entities in developing countries.

**DILWORTH, SECORD, MEAGHER AND ASSOCIATES LIMITED**

4195 Dundas Street West  
Toronto 18, Ontario, Canada  
Tel: (416) 239-3011  
Cable: DSMASSOC

**Services:** data acquisition and control; computer system design; logic systems design; control systems design and analysis; custom instrumentation design and development.

**GAMMA ENGINEERING LIMITED**

10135 - 103 Street  
Edmonton, Alberta, Canada  
Tel: (403) 429-4341

**Services:** management engineering; telecommunication engineering; planning of communication networks; engineering design of telephone and telegraph systems, etc.; preparation of specifications; calling for bids; installation of telecommunication equipment; project supervision; preparation of operating and maintenance standards; training of telecommunication and maintenance personnel; operation, maintenance and management of networks.

**A. C. GARDINER Consulting Communication Engineers**

1221 West 23rd Street  
North Vancouver, British Columbia  
Canada  
Tel: (604) 980-2909  
Cable: CONTELENG

**Services:** design and evaluation of telecommunications facilities for broadcast stations, pipeline operating companies, post and telegraph authorities, government and private; specializing in microwave, AM/FM/TV/CATV broadcasting, mobile radio, telemetry and supervisory and data systems.

**HPL ENGINEERING Division of Hoverproducts Ltd.**

49 Cleopatra Drive  
Ottawa, Ontario K2G 0B6, Canada  
Tel: (613) 825-3758, 825-3001

**Services:** consulting in survey and navigational position finding; determination of requirements and specifications; selection of aids, mobile or fixed, for land, sea or air survey and navigation; calibration and accuracy analysis of aids and systems.

**HOYLES NIBLOCK ASSOCIATES LTD. HOYLES NIBLOCK INTERNATIONAL LTD.**

3110 Boundary Road  
Vancouver 12, British Columbia, Canada  
Tel: (604) 437-1141  
Telex: 04-54323  
TWX: 610-929-1058  
Cable: TELECOM VANCOUVER

**Services:** design and management of construction and commissioning of communication and broadcasting systems. Microwave — long and short haul systems in all bands. VHF and UHF — systems for point-to-point and mobile purposes, land and maritime and air-to-ground, single and multi-channel. Space Communications — systems for national and/or regional requirements. Control and Telemetry — data acquisition, handling, storage and display systems, manual, automatic or semi-automatic, computer (software) or hardware directed. Telephone Switching — local, regional and national. Cable Plant — for telephone system applications and for the transmission of multi-channel television programming (CATV). Beyond the Horizon (Scatter) Communication Systems — to serve areas of low population density. Avi-



Consultants Section (Engineering and Systems) (Con't.)

onics — communication and navigation systems for the air transport industry. Broadcasting — sound, AM and FM, and television stations and regional, national and international networks, studio and transmission plant.

**INFORMATION SCIENCE INDUSTRIES LIMITED**

1755 Woodward Drive  
Ottawa, Ontario K2C 0P9, Canada  
Tel: (613) 225-3900

**Services:** contract programming; developing ready-to-use proprietary software packages; design and implementation of a wide range of administrative and medical hospital systems. General software packages available include DETRAN (decision table translator), SERCHR (a generalized file retrieval/report writer system) and TSAR (text storage and retrieval capable of accepting original English text). Company has designed a complete range of administrative data processing applications for hospitals including payroll, in-patient billing, out-patient billing accounts payable and stores inventory. Two data retrieval systems for the hospital's medical staff have also been developed. These are the Medical Records System and the Medical Information Retrieval System. All systems have been successfully implemented.

**INTEL CONSULTANTS LTD.**

56 Sparks Street, Suite 405  
Ottawa, Ontario K1P 5A9, Canada  
Tel: (613) 236-2311  
TWX: 610-562-1929  
Cable: INTELCON OTT

**Services:** telecommunications systems engineering and economics consultancy; feasibility studies including economics aspects such as rate of return, cash flow analyses, depreciation, etc.; planning and systems design in all branches of telecommunications transmission and switching; project management and management consultancy.

**KATES, PEAT, MARWICK & CO.**

P.O. Box 31  
Commerce Court Postal Station  
Toronto, Ontario, Canada  
Tel: (416) 863-3500

**Services:** business data processing, management information systems, urban traffic control, marine traffic control, air traffic control, medical electronics,

process control. Feasibility studies, systems evaluations, equipment evaluations and tests, system design development and specifications, computer programming, system implementation.

**GEORGE KELK LIMITED**

48 Lesmill Road  
Don Mills, Ontario M3B 2T5, Canada  
Tel: (416) 445-5850  
Telex: 06-966670  
Cable: KELLEX TORONTO

**Services:** calibration by in-house designed press to 10,000,000 lbs. with 0.1% accuracy traceable to National Bureau of Standards dead weights.

**KENDALL ASSOCIATES LIMITED**

77 Metcalfe Street  
Ottawa, Ontario K1P 5L6, Canada  
Tel: (613) 236-0875  
Telex: 053-3560  
Cable: KENMARK

**Services:** marketing consultants specializing in surveys and studies for clients interested in North American defence or technical markets.

**MONTREAL ENGINEERING COMPANY LIMITED**

P.O. Box 777, Place Bonaventure  
Montreal 114, Quebec, Canada  
Tel: (514) 395-3636  
Telex: 01-20227  
Cable: MONENCO

**Services:** consulting engineering services in communications and supervisory control systems for power generating plants, electric power transmission networks (including high voltage DC), pipelines, pumping stations and industrial plants.

**NATIONAL ELECTROLAB LTD.**

1130 East 7th Avenue  
Vancouver 12, British Columbia, Canada  
Tel: (604) 879-9161  
Telex: 043-54623  
TWX: 610-929-1058

**Services:** consulting electronics laboratory; testing of communications equipment for type approval by the Canadian Department of Communications; testing and evaluation for purchasing and insurance purposes; custom instrumentation design and development.

**N. J. PAPPAS & ASSOCIATES**

4003 Decarie Boulevard  
Montreal 260, Quebec, Canada  
Tel: (514) 488-9581  
Cable: PAPPACO

**Services:** RF research; DoC applications; systems engineering; broadcast planning; computer applications; telecommunications; acoustics and noise control; airport systems.

**SDI ASSOCIATES LIMITED**

45 St. Clair Avenue West  
Toronto 7, Ontario, Canada  
Tel: Toronto: (416) 964-7640  
Ottawa: (613) 233-5697  
Montreal: (514) 866-9554

**Services:** consultant services with special emphases in the insurance and finance industries; data processing consulting; data processing systems development; computer processing, data entry services.

**SAPERSTEIN & ASSOCIATES LTD.**

285 Cominco Building  
1199 West Pender Street  
Vancouver 1, British Columbia, Canada  
Tel: (604) 683-4591  
Telex: 04-508553

**Services:** telecommunications; AM, FM and TV broadcasting systems; CATV systems; consultants in testing electronics equipment for type approval; pipeline telemetry and supervisory control systems; telemetry control and data acquisition systems. HF, VHF and microwave systems for land, sea and air environments.

**SED SYSTEMS LTD.**

P.O. Box 1464  
2415 Koyl Avenue  
Saskatoon, Saskatchewan S7K 3P7  
Canada  
Tel: (306) 244-0976

**Services:** management and engineering consultants for aerospace and communications systems; computer simulations of complete systems; systems group work for satellite operations.

**SURVEYER, NENNIGER, CHENEVERT INC.**

1550 de Maisonneuve West  
Montreal, Quebec H3G 1N2, Canada  
Tel: (514) 935-7447  
Telex: 01-20612

**Services:** planning and control of a project involves the skilled application of many specialized techniques utilizing computerized critical path control of time and costs. Budget estimates — design criteria — preliminary engineering; target cost estimates — specifications and detailed design — control estimates — value engineering; cost reports and forecast — progress reports; purchasing — expediting — instruction — material control — tender check estimates — tender calls; negotiation award and administration of contracts — construction management — construction quality control — safety — labour relations; training operating personnel — start up and commissioning.

**SYSTEMS DIMENSIONS LIMITED**

770 Brookfield Road  
Ottawa, Ontario K1V 6J5, Canada  
Tel: (613) 731-6910  
TWX: 610-562-8934

**Services:** computer services, providing a full range of services to data processing customers; System 360/85 is the single largest and most powerful computer installed in Canada. Operating divisions — computer service, management service; Subsidiaries — Systems Plan Softwarehouse Limited.

consultants section  
(Geophysical Survey Services)

**AERO PHOTO INC.**

1975 Boulevard Charest West  
Ste. Foy, Quebec G1N 2E6, Canada  
Tel: (418) 683-2231  
Telex: 01-13467  
Cable: GEOAIR

**Services:** geophysical exploration — aeromagnetic.

**BARRINGER RESEARCH LIMITED**

304 Carlingview Drive  
Metropolitan Toronto  
Rexdale, Ontario M9W 5G2, Canada  
Tel: (416) 677-2491  
Telex: 06-968743  
Cable: BARESEARCH TORONTO

**Services:** program participation and management; consulting and contracting; laboratory analyses; ground and airborne pollution monitoring.

**ELC GEOPHYSICS LTD.**

250 North Grosvenor Avenue  
Burnaby 2, British Columbia, Canada  
Tel: (604) 298-9619

**Services:** geophysical surveying.

**EXPLORANIUM CORPORATION**  
**Division of Geometrics Services**  
**(Canada) Ltd.**

48 Alness Street  
Downsview, Ontario, Canada  
Tel: (416) 661-1966  
Telex: 06-22694  
Cable: EXPLOR

**Services:** geophysics and remote sensing; airborne and ground magnetic, gravity, infrared, gamma-ray, geochemical and geological compilation interpretation services; contract services for airborne and ground magnetics, infrared, gamma-ray, geochemical and geological.

**GAR-X SURVEY LTD.**

1105 Third Street  
Val d'Or, Quebec, Canada  
Tel: (819) 824-2378

**Services:** geophysical exploration — combined aeromagnetic/very low frequency electromagnetic; airborne radiometric.

**GEN-TEC INC.**

2625 Dalton  
Ste. Foy, Quebec G1P 3S9, Canada  
Tel: (418) 651-8000

**Services:** laser consultant on applications in research projects.

**GEOTERREX LTD.**

2060 Walkley Road  
Ottawa, Ontario K1G 3P5, Canada  
Tel: (613) 731-9571  
Telex: 01-33502  
Cable: GEOTERREX

**Services:** geophysical exploration high sensitivity — aeromagnetic; combined aeromagnetic/airborne electromagnetic; airborne radiometric and airborne electronic distance measuring.

**HUNTEC ('70) LIMITED**

1450 O'Connor Drive  
Toronto 374, Ontario, Canada  
Tel: (416) 751-8055  
Telex: 06-22797  
Cable: HUNTOR

**Services:** land and marine seismic profiling services for engineering and mineral exploration.

**INTERRA ENVIRONMENTAL**  
**CONSULTANTS LTD.**

1010 - 603 7th Avenue Southwest  
Calgary, Alberta T2P 2T5, Canada  
Tel: (403) 264-5113

**Services:** baseline and impact environmental study; theoretical studies; environmental model development; computer modelling of atmospheric diffusion of pollutants; soil pollutants; vegetation stress surveys and analyses; remote sensing of snow pack, vegetation, soil and atmospheric pollution; climatological study; air quality studies; corridor and rights of way analyses; spectral signature research in remote sensing; urban analyses; weather modification; and library research projects.

**NORTHWAY SURVEY**  
**CORPORATION LTD.**

1450 O'Connor Drive  
Toronto 374, Ontario, Canada  
Tel: (416) 755-1141  
Telex: 02-21571  
Cable: CANLOCK

**Services:** geophysical exploration — aeromagnetic; combined aeromagnetic/airborne electromagnetic; airborne radiometric; very low frequency electromagnetic.

**QUESTOR INTERNATIONAL**  
**SURVEYS INC.**

20 Canso Road  
Rexdale, Ontario, Canada  
Tel: (416) 249-3357

**Services:** geophysical exploration — aeromagnetic; combined aeromagnetic/airborne electromagnetic; airborne radiometric.

**SCINTREX SURVEYS LIMITED**

222 Snidercroft Road  
Concord, Ontario, Canada  
Tel: (416) 889-8990  
Telex: 06-219674  
Cable: SCINTREX TORONTO

**Services:** geophysical exploration — aeromagnetic; combined aeromagnetic/airborne electromagnetic; airborne radiometric; very low frequency electromagnetic; airborne, ground and bore hole methods.

**SURVAIR LTD.**

P.O. Box 469  
Hunt Club Road, R.R. #5  
Ottawa, Ontario K1G 3N3, Canada  
Tel: (613) 521-3673  
Telex: 053-3344  
Cable: SURVAIR

**Services:** geophysical exploration — aeromagnetic; very low frequency; electromagnetic; airborne radiometric.

# cross index by products

This index provides a handy reference to the more than 200 companies listed in the booklet. For easy use it is broken down into general categories in two sections — Electronics Equipment and Systems Section, and Components Section — rather than by specific products.

**AEROSPACE EQUIPMENT RESEARCH**

Barringer Research Limited  
 Bristol Aerospace Limited  
 CAE Electronics Ltd.  
 Computing Devices of Canada Limited  
 Exploranium Corporation  
 Interra Environmental Consultants Ltd.  
 Leigh Instruments Limited  
 Northern Electric Company Limited  
 RCA Limited  
 Scintrex Limited  
 Spar Aerospace Products Limited

**AIRCRAFT INSTRUMENTS**

Leigh Instruments Limited

**AMPLIFIERS**

Barvic Audio Services Ltd.  
 Bayly Engineering Limited  
 Canadian Marconi Company  
 Danscoll Ltd.  
 Delta-Benco-Cascade Limited  
 DynaQuip Electron Devices Limited  
 Ealing Scientific Limited  
 Fanon Electronics of Canada Limited  
 Farinon Electric of Canada Ltd.  
 Geonics Limited  
 Keil Industries Limited  
 Lanico Industries Ltd.  
 Multi-Vox Ltd.  
 National Electrolab Ltd.  
 Quindar Products Limited  
 SED Systems Ltd.  
 Televox Systems Inc.  
 Valeriotte Electronics (Guelph) Ltd.

**ANNUNCIATOR SYSTEMS**

Automatec Inc.  
 Barvic Audio Services Ltd.  
 Bedard-Girard Ltd.  
 Canadian Sound and Signal Division  
 Check Security Systems Ltd.  
 Crescent Controls Ltd.  
 Edwards of Canada  
 Modudata Systems Limited  
 Motorola (Dascan)  
 Quindar Products Limited  
 Rochester Instrument Systems of Canada Ltd.  
 Verrex Advanced Systems Ltd.

**ANTENNAS**

Ainslie Antenna Co. Ltd.  
 Andrew Antenna Company Limited  
 General Precision Industries Ltd.  
 Hermes Electronics Limited  
 Nautical Electronic Laboratories Limited  
 Radio Engineering Products Limited  
 RCA Limited

Sinclair Radio Laboratories Limited  
 Spilsbury & Tindall Ltd.  
 TMC (Canada) Limited

**AVIONICS**

**Communications**

Collins Radio Company of Canada Limited  
 Crescent Controls Ltd.  
 Garrett Manufacturing Limited  
 Spilsbury & Tindall Ltd.

**Navigation**

Aircraft Appliances & Equipment Limited  
 Aviation Electric Ltd.  
 Canadian Marconi Company  
 Computing Devices of Canada Limited  
 Hermes Electronics Limited  
 ITT Canada Limited  
 Leigh Instruments Limited  
 Litton Systems (Canada) Limited  
 Philips Electronics Industries Ltd.  
 Raytheon Canada Limited

**Simulators**

CAE Electronics Ltd.  
 Litton Systems (Canada) Limited  
 Marsland Engineering Limited  
 Space Research Corporation

**Intercoms**

Marsland Engineering Limited

**Misc.**

Beaconing, Optical & Precision Materials Co. Ltd.  
 Canadian Marconi Company  
 Collins Radio Company of Canada Limited  
 Computing Devices of Canada Limited  
 Garrett Manufacturing Limited  
 Hermes Electronics Limited  
 Leigh Instruments Limited

**BROADCAST EQUIPMENT**

Canadian General Electric Company Limited  
 Central Dynamics Ltd.  
 McCurdy Radio Industries Limited  
 RCA Limited  
 Richmond Hill Laboratories Limited  
 Scintrex Limited  
 Vitec Communications Ltd.

**COMMUNICATIONS EQUIPMENT**

**HF**

Analog Digital Research Ltd.  
 Canadian General Electric Company Limited  
 Canadian Marconi Company  
 Collins Radio Company of Canada Limited

Daniels Electronics Limited  
 Hermes Electronics Limited  
 Nautical Electronic Laboratories Limited

Racal (Canada) Limited  
 Spilsbury & Tindall Ltd.  
 TMC (Canada) Limited

**VHF**

Analog Digital Research Ltd.  
 Canadian General Electric Company Limited  
 Canadian Marconi Company  
 Canadian Motorola Electronics Company  
 Hermes Electronics Limited  
 International Systcoms Limited  
 Radio Engineering Products Limited  
 RCA Limited  
 Spilsbury & Tindall Ltd.

**UHF and Microwave**

Analog Digital Research Ltd.  
 Beaconing, Optical & Precision Materials Co. Ltd.  
 Canadian Marconi Company  
 Canadian Motorola Electronics Company  
 Collins Radio Company of Canada Limited  
 Farinon Electric of Canada Ltd.  
 International Systcoms Limited  
 Northern Electric Company Limited  
 Raytheon Canada Limited  
 RCA Limited  
 Spilsbury & Tindall Ltd.

**SSB**

Canadian Marconi Company  
 Collins Radio Company of Canada Limited  
 Hermes Electronics Limited  
 Nautical Electronic Laboratories Limited  
 Spilsbury & Tindall Ltd.  
 TMC (Canada) Limited

**Satellite Communications**

Northern Electric Company Limited  
 RCA Limited  
 SED Systems Ltd.  
 Spar Aerospace Products Limited  
 Westinghouse Canada Limited

**General and Custom**

Acme Devices Inc.  
 ITT Canada Limited  
 Omicron Data Systems Limited  
 SED Systems Ltd.  
 Valeriotte Electronics (Guelph) Ltd.  
 Verrex Advanced Systems Ltd.

**CALCULATORS, COMPUTERS AND PERIPHERAL EQUIPMENT**

Analog Digital Research Ltd.

Automatic Electronic Systems Limited  
Aviation Electric Limited  
Bristol Aerospace Limited  
Canadian Marconi Company  
Canadian Research Institute  
Computing Devices of Canada Limited  
Consolidated Computer Inc.  
Electro Dynamics and Telecom Ltd.  
ESE Limited  
Exploranium Corporation  
Ferranti-Packard Limited  
Garrett Manufacturing Limited  
Hermes Electronics Limited  
Honeywell Ltd.  
INAX Instruments Ltd.  
Instronics Ltd.  
Litton Systems (Canada) Limited  
Marstrand Engineering Limited  
Microwave Technology  
Quindar Products Limited  
Rapid Data Systems & Equipment Ltd.  
Raytheon Canada Limited  
Tele-Radio Systems Limited  
T-Scan Limited  
Westinghouse Canada Limited

#### **CONTROL EQUIPMENT AND SYSTEMS**

##### **Communications**

Automatec Inc.  
Bayly Engineering Limited  
Philips Electronics Industries Ltd.  
Quindar Products Limited

##### **Machine Tool Control**

Automatec Inc.  
Electro Dynamics and Telecom Ltd.  
Ferranti-Packard Limited  
Leigh Instruments Limited  
Vickers UMAC Division of  
Sperry Rand  
Westinghouse Canada Limited

##### **Process Control**

Aircraft Appliances & Equipment Limited  
Automatec Inc.  
Automatic Electronic Systems Incorporated  
Bailey Meter Company Limited  
Crescent Controls Ltd.  
Electro Dynamics and Telecom Ltd.  
Electronic Associates of Canada Ltd.  
Gulton Industries (Canada) Ltd.  
Honeywell Ltd.  
George Kelk Limited  
Lanico Industries Ltd.  
Lisle Instrument Systems Limited  
Raycon Inc.  
Westinghouse Canada Limited

##### **General Industrial Controls**

Aircraft Appliances & Equipment Limited  
Automatec Inc.  
Automatic Electronic Systems Incorporated  
Bach-Simpson Limited  
Bailey Meter Company Limited  
Barvic Audio Services Ltd.  
CAE Electronics Ltd.  
Canadian Research Institute  
Challenger Electronics  
Crescent Controls Ltd.  
Electro Dynamics and Telecom Ltd.  
Ferranti-Packard Limited  
Fischer & Porter (Canada) Limited  
Gen-Tec Inc.  
Glenayre Electronics Ltd.  
Gulton Industries (Canada) Ltd.  
Honeywell Ltd.  
George Kelk Limited  
Leigh Instruments Limited  
Lisle Instrument Systems Limited  
Metrix Manufacturing Company Limited  
Nash & Harrison Limited  
Polytronics Co.  
Raycon Inc.  
Verrex Advanced Systems Ltd.  
Westinghouse Canada Limited

##### **Remote**

Automatec Inc.  
Automatic Electronic Systems Incorporated  
Bayly Engineering Limited  
Beaconing, Optical & Precision Materials Co. Ltd.  
Bristol Aerospace Limited  
CAE Electronics Ltd.  
Challenger Electronics  
Modudata Systems Limited  
Motorola (Dascan)  
Multi-Elmac of Canada Limited  
Quindar Products Limited  
SED Systems Ltd.  
Verrex Advanced Systems Ltd.  
Vitec Communications Ltd.

##### **Railway Signalling and Control**

Bedard-Girard Ltd.  
Bayly Engineering Limited  
Glenayre Electronics Ltd.

##### **Traffic Control Systems**

Automatec Inc.  
Canadian General Electric Company Limited  
M & K Developments

##### **COUNTING AND TIMING DEVICES**

Analog Digital Research Ltd.  
Bach-Simpson Limited  
Bristol Aerospace Limited

Canadian Research Institute  
Ealing Scientific Limited  
Lanico Industries Ltd.  
Metrix Manufacturing Company Limited  
M & K Developments

#### **DATA ACQUISITION AND CONTROL SYSTEMS**

Automatec Inc.  
Automatic Electronic Systems Incorporated  
Bailey Meter Company Limited  
Bristol Aerospace Limited  
CAE Electronics Ltd.  
Computing Devices of Canada Limited  
Crescent Controls Ltd.  
EKEG Electronics Co. Ltd.  
ESE Limited  
Exploranium Corporation  
Garrett Manufacturing Limited  
GTE Lenkurt Electric (Canada) Ltd.  
Instronics Ltd.  
Interra Environmental Consultants Ltd.  
Leigh Instruments Limited  
Litton Systems (Canada) Limited  
Marstrand Engineering Limited  
Microwave Technology  
M & K Developments  
Motorola (Dascan)  
NR Systems Ltd.  
Pylon Electronic Development Company, Ltd.  
Quindar Products Limited  
Raytheon Canada Limited  
Sander Geophysics Limited  
Scintrex Limited  
SED Systems Ltd.  
Techal Electronic Services Ltd.  
Verrex Advanced Systems Ltd.  
Westinghouse Canada Limited

#### **DIGITAL CLOCKS, TIMERS, PROGRAMMERS AND EVENT RECORDERS**

Analog Digital Research Ltd.  
Automatec Inc.  
Binary Three Limited  
DynaQuip Electron Devices Limited  
E.D.A. Electronics Limited  
Exploranium Corporation

#### **DIGITIZERS**

Analog Digital Research Ltd.  
Instronics Ltd.  
Leigh Instruments Limited  
Ruscom Logics Limited

#### **DISPLAY SYSTEMS**

CAE Electronics Ltd.  
Canadian Marconi Company

Central Dynamics Ltd.  
Computing Devices of Canada Limited  
Edwards of Canada  
Ferranti-Packard Limited  
Leigh Instruments Limited  
Marsland Engineering Limited  
Raytheon Canada Limited  
RCA Limited  
TMC (Canada) Limited  
Westinghouse Canada Limited

**EDUCATION AND RELATED EQUIPMENT**

Anatek Electronics Ltd.  
Ashman Industries (1966) Ltd.  
Automatec Inc.  
Barvic Audio Services Ltd.  
Canadian Research Institute  
CETA Limited  
COPAQ  
Ealing Scientific Limited  
E.D.A. Electronics Ltd.  
Edwards of Canada  
Electrohome Limited  
Electronic Controls Limited  
Garrett Manufacturing Limited  
Geonics Limited  
Hampden Ltd.  
Keil Industries Limited  
Lab-Volt Limited  
Lanico Industries Ltd.  
McCurdy Radio Industries Limited  
J. M. Nelson Electronics Ltd.  
Raytheon Canada Limited  
Scintrex Limited  
Stark Electronic Instruments Limited  
Unelco Ltd.  
White Electronic Development Corporation (1966) Limited

**ELECTRONIC CALCULATORS**

Rapid Data Systems & Equipment Ltd.

**ELECTRONIC DATA PROCESSING EQUIPMENT AND SYSTEMS**

Automatec Inc.  
Bristol Aerospace Limited  
CAE Electronics Ltd.  
Computing Devices of Canada Limited  
Consolidated Computer Inc.  
Crescent Controls Ltd.  
ESE Limited  
Ferranti-Packard Limited  
Hermes Electronics Limited  
Interra Environmental Consultants Ltd.  
Litton Systems (Canada) Limited  
Raytheon Canada Limited  
SED Systems Ltd.  
Tele-Radio Systems Limited  
T-Scan Limited

**ELECTRO-OPTICAL AND INFRARED EQUIPMENT**

Automatec Inc.  
Computing Devices of Canada Limited  
Interra Environmental Consultants Ltd.  
RCA Limited  
Spar Aerospace Products Limited

**ENVIRONMENT INSTRUMENTATION AND MONITORING**

Automatec Inc.  
Bailey Meter Company Limited  
Barringer Research Limited  
Bristol Aerospace Limited  
CAE Electronics Ltd.  
Canadian Admiral Corporation Ltd.  
Canadian Research Institute  
Computing Devices of Canada Limited  
Crescent Controls Ltd.  
Fischer & Porter (Canada) Limited  
Hermes Electronics Limited  
Hotpack (Canada) Ltd.  
INAX Instruments Ltd.  
Interra Environmental Consultants Ltd.  
Lanico Industries Ltd.  
Leigh Instruments Limited  
Marsland Engineering Limited  
Microwave Technology  
Polytronics Co.  
Scintrex Limited  
SED Systems Ltd.  
Spar Aerospace Products Limited

**GEOPHYSICAL EQUIPMENT**

**Airborne**

Barringer Research Limited  
Bristol Aerospace Limited  
E.D.A. Electronics Ltd.  
Exploranium Corporation  
Geodynamics Services Ltd.  
Geonics Limited  
McPhar Geophysics Limited  
Sander Geophysics Limited  
Scintrex Limited  
SED Systems Ltd.

**Ground**

ACR Industrial Services Ltd.  
Barringer Research Limited  
Columbia Geophysical Supplies Ltd.  
Crone Geophysics Limited  
E.D.A. Electronics Ltd.  
Exploranium Corporation  
Geodynamics Services Ltd.  
Geonics Limited  
Glenayre Electronics Ltd.  
Huntec ('70) Limited  
INAX Instruments Ltd.  
McPhar Geophysics Limited  
Sander Geophysics Limited

Scintrex Limited  
SED Systems Ltd.

**Marine**

Barringer Research Limited  
Canadian Research Institute  
Exploranium Corporation  
Huntec ('70) Limited

**Survey Services**

Aero Photo Inc.  
Barringer Research Limited  
Columbia Geophysical Supplies Ltd.  
Crone Geophysics Limited  
ELC Geophysics Ltd.  
Exploranium Corporation  
GAR-X Survey Ltd.  
Geonics Limited  
Geoterrex Ltd.  
Huntec ('70) Limited  
Interra Environmental Consultants Ltd.  
McPhar Geophysics Limited  
Northway Survey Corporation Ltd.  
Questor International Surveys Inc.  
Sander Geophysics Limited  
Scintrex Surveys Limited  
Survair Ltd.

**INTERCOMMUNICATIONS EQUIPMENT**

**Industrial**

Auto-Vox Inc.  
Canadian Motorola Electronics Company  
Fanon Electronics of Canada Limited  
Keil Industries Limited  
Marsland Engineering Limited  
McCurdy Radio Industries Limited  
Multi-Vox Ltd.  
Televox Systems Inc.

**Apartment**

Canadian Sound and Signal Division  
Multi-Vox Ltd.

**Hotels and Hospitals**

Barvic Audio Services Ltd.  
Keil Industries Limited  
Multi-Vox Ltd.  
Televox Systems Inc.

**Business and Office**

Fanon Electronics of Canada Limited  
Multi-Vox Ltd.  
Televox Systems Inc.

**Public Address and Paging Systems**

Auto-Vox Inc.  
Canadian Motorola Electronics Company  
Marsland Engineering Limited  
Multi-Vox Ltd.  
Omicron Data Systems Limited  
Televox Systems Inc.

**LASERS AND ANCILLARY EQUIPMENT**

Eastern Geophysics Ltd.  
Gen-tec Inc.  
Lumonics Research Limited  
RCA Limited  
Sinclair Radio Laboratories Limited

**MEDICAL ELECTRONICS**

Bach-Simpson Limited  
Canadian Research Institute  
Conuclear Ltd.  
EKEG Electronics Co. Ltd.  
Geonics Limited  
HARCO Electronics Limited  
Measurement Engineering  
OWL Instruments Ltd.  
Philips Electronics Industries Ltd.  
Physico-Medical Systems Corporation  
Picker X-Ray Mfg. Ltd.  
Spar Aerospace Products Limited  
Televox Systems Inc.  
Unitron Industries Ltd.  
Westinghouse Canada Limited

**MICROWAVE SYSTEMS AND EQUIPMENT**

Collins Radio Company of Canada Limited  
Farinon Electric of Canada Ltd.  
GTE Lenkurt Electric (Canada) Ltd.  
ITT Canada Limited  
Northern Electric Company Limited  
Raytheon Canada Limited  
RCA Limited  
Sinclair Radio Laboratories Limited  
Techal Electronic Services Ltd.

**Microwave Drying, Moisture Sensing and Applicator Equipment**

Mega System Design Limited  
Microwave Technology

**MONITORING AND SUPERVISORY CONTROL**

Assembly Electronics  
Automatec Inc.  
Automatic Electronic Systems Incorporated  
Bailey Meter Company Limited  
Bristol Aerospace Limited  
CAE Electronics Ltd.  
Central Dynamics Ltd.  
Check Security Systems Ltd.  
Crescent Controls Ltd.  
Ferranti-Packard Limited  
Fischer & Porter (Canada) Limited  
Glenayre Electronics Ltd.  
GTE Lenkurt Electric (Canada) Ltd.  
George Kelk Limited  
Lanico Industries Ltd.

Leigh Instruments Limited  
Lorain Products (Canada) Ltd.  
Modudata Systems Limited  
Motorola (Dascan)  
Multi-Elmac of Canada Limited  
Nash & Harrison Limited  
Polytronics Co.  
Quindar Products Limited  
Raycon Inc.  
Rochester Instrument Systems of Canada Ltd.  
SED Systems Ltd.  
Sinclair Radio Laboratories Limited  
Techal Electronic Services Ltd.  
Vitec Communications Ltd.

**MULTIPLEX EQUIPMENT**

Automatec Inc.  
Automatic Electronic Systems Incorporated  
Collins Radio Company of Canada Limited  
ESE Limited  
Farinon Electric of Canada Ltd.  
GTE Lenkurt Electric (Canada) Ltd.  
Modudata Systems Limited  
Motorola (Dascan)  
Northern Electric Company Limited  
NR Systems Ltd.  
Quindar Products Limited  
Radio Engineering Products Limited

**NAVIGATION AND DIRECTION FINDING EQUIPMENT**

**Ground**

Aviation Electric Ltd.  
General Precision Industries Ltd.  
ITT Canada Limited  
Leigh Instruments Limited  
Marsland Engineering Limited  
Nautical Electronic Laboratories Limited  
Philips Electronics Industries Ltd.  
Raytheon Canada Limited  
Spilsbury & Tindall Ltd.  
Westinghouse Canada Limited

**Marine**

Computing Devices of Canada Limited  
C-Tech Limited  
Ekolite Limited  
General Precision Industries Ltd.  
Nautical Electronic Laboratories Limited  
Sparton of Canada, Limited  
Subcom Systems Ltd.  
Westinghouse Canada Limited

**NUCLEAR INSTRUMENTATION**

CAE Electronics Ltd.  
Canadian Admiral Corporation Ltd.

Canadian General Electric Company Limited  
Conuclear Ltd.  
Exploranium Corporation  
INAX Instruments Ltd.  
Scintrex Limited  
Techal Electronic Services Ltd.

**OCEANOGRAPHY AND METEOROLOGY**

**Communications**

Automatec Inc.  
CAE Electronics Ltd.  
Canadian Marconi Company  
Collins Radio Company of Canada Limited  
Daniels Electronic Limited  
Exploranium Corporation  
Interra Environmental Consultants Ltd.  
National Electrolab Ltd.  
Spilsbury & Tindall Ltd.  
Subcom Systems Ltd.

**Detection**

Beaconing, Optical & Precision Materials Co. Ltd.  
Bristol Aerospace Limited  
CAE Electronics Ltd.  
Computing Devices of Canada Limited  
C-Tech Limited  
Ekolite Limited  
Hermes Electronics Limited  
Huntec ('70) Limited  
Marsland Engineering Limited  
Sparton of Canada, Limited  
Subcom Systems Ltd.  
TMC (Canada) Limited  
Westinghouse Canada Limited

**Monitoring and Survey**

Automatec Inc.  
C-Tech Limited  
Ekolite Limited  
Guildline Instruments Limited  
Hermes Electronics Limited  
National Electrolab Ltd.

**POSTAL AUTOMATION SYSTEMS**

Automatec Inc.  
CAE Electronics Ltd.  
Instronics Ltd.  
ITT Canada Limited  
Litton Systems (Canada) Limited  
Marsland Engineering Limited

**POWER SUPPLIES, STATIC INVERTERS AND CONVERTERS, RECTIFIERS**

Aircraft Appliances & Equipment Limited  
Anatek Electronics Ltd.  
Ashman Industries (1966) Ltd.



## Electronics Equipment and Systems Section (Con't.)

Automatec Inc.  
Bedard-Girard Ltd.  
Beel Controls Limited  
Canadian Admiral Corporation Ltd.  
Canadian General Electric Company Limited  
Canadian Marconi Company  
Canadian Research Institute  
CETA Limited  
CTS of Canada Limited  
Electronic Controls Limited  
Garrett Manufacturing Limited  
Glenayre Electronics Ltd.  
Hampden Ltd.  
Instronics Ltd.  
Lab-Volt Limited  
Lorain Products (Canada) Ltd.  
Marsland Engineering Limited  
Measurement Engineering  
Mega System Design Limited  
Microwave Technology  
Powertronic Equipment Limited  
Pylon Electronic Development Company, Ltd.  
Radio Engineering Products Limited  
Raycon Inc.  
Research Industries Limited  
Spar Aerospace Products Limited  
Stark Electronic Instruments Limited  
Staticon Ltd.  
Valeriotte Electronics (Guelph) Ltd.

### **PRODUCTION MACHINERY AND EQUIPMENT**

Electrovert Manufacturing Co. Ltd.  
Fortin-Latchford Ltd.

### **RADAR SYSTEMS AND ANCILLARY EQUIPMENT**

Beaconing, Optical & Precision Materials Co. Ltd.  
CAE Electronics Ltd.  
Canadian Marconi Company  
ITT Canada Limited  
Raytheon Canada Limited  
Sinclair Radio Laboratories Limited  
Westinghouse Canada Limited

### **RECORDERS**

Exploranium Corporation  
Fischer & Porter (Canada) Limited  
Huntec ('70) Limited  
Leigh Instruments Limited

### **Remote Sensing Instruments and Services**

Barringer Research Limited  
CAE Electronics Ltd.  
Canadian Research Institute  
Computing Devices of Canada Limited  
C-Tech Limited  
Hermes Electronics Limited

Interra Environmental Consultants Ltd.  
Leigh Instruments Limited  
Modudata Systems Limited  
RCA Limited  
Raytheon Canada Limited  
Scintrex Limited  
Spar Aerospace Products Limited  
Subcom Systems Ltd.

### **REGULATORS, VOLTAGE AND FREQUENCY**

Aircraft Appliances & Equipment Limited  
Automatec Inc.  
Bristol Aerospace Limited  
Canadian Research Institute  
Challenger Electronics  
Ferranti-Packard Limited  
George Kelk Limited  
Powertronic Equipment Limited  
Radio Engineering Products Limited  
SED Systems Ltd.  
Staticon Ltd.

### **REPAIR AND OVERHAUL SERVICES**

#### **Calibration**

Aviation Electric Ltd.  
CAE Electronics Ltd.  
Canadian Marconi Company  
Canadian Research Institute  
Computing Devices of Canada Limited  
ITT Canada Limited  
Leigh Instruments Limited  
National Electrolab Ltd.  
Spar Aerospace Products Limited

#### **Test**

Aviation Electric Ltd.  
CAE Electronics Ltd.  
Canadian Marconi Company  
Canadian Research Institute  
Computing Devices of Canada Limited  
Leigh Instruments Limited  
National Electrolab Ltd.  
Spar Aerospace Products Limited

#### **General**

Aircraft Appliances & Equipment Limited

### **SATELLITE COMMUNICATIONS**

Bristol Aerospace Limited  
Computing Devices of Canada Limited  
Northern Electric Company Limited  
Raytheon Canada Limited  
RCA Limited  
SED Systems Ltd.  
Spar Aerospace Products Limited  
Westinghouse Canada Limited

### **TACHOMETER GENERATORS**

Aircraft Appliances & Equipment Limited  
George Kelk Limited

### **TELEGRAPH EQUIPMENT**

Automatic Electronics Systems Incorporated  
CAE Electronics Ltd.  
ITT Canada Limited  
Marsland Engineering Limited  
NR Systems Ltd.  
Radio Engineering Products Limited

### **TELEMETERING SYSTEMS**

Bristol Aerospace Limited  
CAE Electronics Ltd.  
Computing Devices of Canada Limited  
Crescent Controls Ltd.  
EKEG Electronics Co. Ltd.  
Microwave Technology  
Modudata Systems Limited  
Motorola (Dascan)  
Nautical Electronic Laboratories Limited  
NR Systems Ltd.  
Polytronics Co.  
Quindar Products Limited  
RCA Limited  
SED Systems Ltd.  
Vitec Communications Ltd.

### **TELEPHONE EQUIPMENT**

Acme Devices Inc.  
Auto-Vox Inc.  
Bayly Engineering Limited  
Electro Dynamics and Telecom Ltd.  
ESE Limited  
Fanon Electronics of Canada Limited  
GTE Automatic Electric (Canada) Limited  
International Systcoms Limited  
ITT Canada Limited  
Multi-Vox Ltd.  
National Electrolab Ltd.  
Northern Electric Company Limited  
NR Systems Ltd.  
Omicron Data Systems Limited  
Pylon Electronic Development Company, Ltd.  
Quindar Products Limited  
Radio Engineering Products Limited  
Research Industries Limited  
SED Systems Ltd.  
Tele-Radio Systems Limited  
Televox Systems Inc.  
Transcom Electronics Manufacturing Ltd.

### **TELEVISION EQUIPMENT AND SYSTEMS**

#### **Closed Circuit**

Central Dynamics Ltd.  
Richmond Hill Laboratories Limited  
Vitec Communications Ltd.

## Electronics Equipment and Systems Section (Con't.)

### **Studio**

Canadian General Electric Company Limited  
Central Dynamics Ltd.  
Danscoll Ltd.  
Electrohome Limited  
McCurdy Radio Industries Limited  
Richmond Hill Laboratories Limited  
Vitec Communications Ltd.

### **Stabilized Airborne Platforms for TV Camera Systems**

Westinghouse Canada Limited

### **Cable Television**

Anaconda Electronics Ltd.  
Danscoll Limited  
Delta-Benco-Cascade Ltd.  
Vitec Communications Ltd.

### **CATV**

Danscoll Ltd.  
Delta-Benco-Cascade Limited  
Marland Engineering Limited  
Vitec Communications Ltd.

### **TEST, LABORATORY AND MEASURING EQUIPMENT**

Analog Digital Research Ltd.  
Aviation Electric Ltd.  
Bach-Simpson Limited  
Bayly Engineering Limited  
Bristol Aerospace Limited  
CAE Electronics Ltd.  
Canadian Research Institute  
COPAQ  
Delta-Benco-Cascade Limited  
Ealing Scientific Limited  
E.D.A. Electronics Ltd.  
Electronic Controls Limited  
ESE Limited  
Garrett Manufacturing Limited  
Guildline Instruments Limited  
Hampden Ltd.  
Hermes Electronics Limited  
Hotpack (Canada) Ltd.  
INAX Instruments Ltd.  
Lab-Volt Limited  
Lanico Industries Ltd.  
Leigh Instruments Limited  
Litton Systems (Canada) Limited  
Metrix Manufacturing Company Limited  
Microwave Technology  
Nash & Harrison Limited  
National Electrolab Ltd.  
Racal (Canada) Ltd.  
Raytheon Canada Limited  
RCA Limited  
Richmond Hill Laboratories Limited  
SED Systems Ltd.

Stark Electronic Instruments Limited  
Taylor Instrument Companies of Canada Limited  
Techal Electronic Services Ltd.  
Tele-Radio Systems Limited

### **TOWERS AND ACCESSORIES**

Austin Insulator Division  
Canadian Bridge Division  
Dynamic Industries Inc.  
LeBlanc & Royle Communications Towers Limited  
Spar Aerospace Products Limited  
Tower Communications Co. (Canada) Limited  
Valeriotte Electronics (Guelph) Ltd.

### **TRANSDUCERS**

C-Tech Limited  
Ferranti-Packard Limited  
Fischer & Porter (Canada) Limited  
George Kelk Limited  
Rochester Instrument Systems of Canada Ltd.

### **TRANSMITTERS**

Bailey Meter Company Limited  
Bristol Aerospace Limited  
Canadian General Electric Company Limited  
Canadian Marconi Company  
Collins Radio Company of Canada Limited  
Fischer & Porter (Canada) Limited  
Hermes Electronics Limited  
Nautical Electronic Laboratories Limited  
RCA Limited

### **ULTRASONICS**

C-Tech Limited  
Ekolite Limited  
Westinghouse Canada Limited

#### **ANTENNAS**

Amphenol Canada Limited  
Collben Manufacturing Company  
Geleco Electronics Ltd.  
Lindsay Specialty Products Ltd.  
RCA Limited  
Sinclair Radio Laboratories Limited  
Spillsbury & Tindall Ltd.  
Valeriot Electronics (Guelph) Ltd.  
Ward Automotive Electronics  
of Canada Limited

#### **CABLE HARNESES**

Amphenol Canada Limited  
Clare C.P. Canada Ltd.  
Valeriot Electronics (Guelph) Ltd.

#### **CAPACITORS**

Aerovox Canada Limited  
Capacitors of Canada (1968) Limited  
Centralab Canada Limited  
Erie Technological Products of  
Canada Limited  
Johnson, Matthey and Mallory Ltd.  
Northern Electric Company Limited  
Quality Communication Products Ltd.  
Sprague Electric of Canada Limited  
Superior Continental Canada Ltd.

#### **CERAMICS**

Almax Ceramic Industries Ltd.  
Neosid (Canada) Limited

#### **COILS, AF, IF, RF**

Anro Electronic Industries Ltd.  
Automatic Coil Manufacturing Ltd.  
Automatic Winding Corp. Ltd.  
Broy Engineering Limited  
Canadian Marconi Company  
Electronic Craftsmen  
General Instrument of Canada Ltd.  
General Magnetic Products of  
Hawkesbury Limited  
GTE Automatic Electric (Canada)  
Limited  
Jarry Electronics Limited  
Smallwood S. G. Ltd.  
Superior Continental Canada Ltd.  
Valeriot Electronics (Guelph) Ltd.

#### **CONNECTORS**

Amphenol Canada Limited  
Boston Insulated Wire and Cable  
Company, Limited  
Burndy Canada Ltd.  
Dale Electronics Canada Ltd.  
Digital Components Limited  
Elco Connectors (Canada) Ltd.  
ITT Cannon Electric Canada  
Lindsay Specialty Products Ltd.  
Northern Electric Company Limited  
Renfrew Electric Company Limited

#### **CONTROLS, MOTOR, SAFETY, ETC.**

Precision Electronic Components  
(1971) Ltd.  
Syntron (Canada) Limited

#### **COUNTERS**

ESNA Limited

#### **CRYSTALS, CRYSTAL OSCILLATORS, CRYSTAL OVENS**

Columbia Research Ltd.  
Croven Ltd.  
CTS of Canada Limited  
Philips Electronics Industries Ltd.  
C. R. Snelgrove Co. Limited

#### **ELECTROMAGNETIC MODULES**

Ferranti-Packard Limited

#### **ELECTRO-MECHANICAL PARTS AND ASSEMBLIES**

General Instrument of Canada Ltd.  
General Precision Industries Ltd.  
Hylogic Ltd.  
Novatronics of Canada Limited  
Rapid Grip and Batten, Ltd.  
Stegg Electric Ltd.  
Strite Industries Limited

#### **ELECTRONIC HARDWARE**

##### **Sockets, knobs, dials, panels, etc.**

Amphenol Canada Limited  
Digital Components Limited  
Electronic Illumination Ltd.  
Graphico Precision Works Ltd.  
O & W Electronics Limited  
Quality Hermetics Limited  
Rapid Grip and Batten, Ltd.  
RDC Industries Ltd.  
Space Circuits Ltd.  
Stegg Electric Ltd.  
Will-Hart Ltd.

#### **ELECTRONIC AND TV TUBES**

RCA Limited  
Superior Electronics Industries Ltd.  
Varian Associates of Canada Ltd.  
Westinghouse Canada Limited

#### **FILTERS**

Bayly Engineering Limited  
Canadian Marconi Company  
Croven Ltd.  
CTS of Canada Limited  
Desitron Company Limited  
Erie Technological Products of  
Canada Limited  
ESE Limited  
Ferritronics Limited  
Geleco Electronics Ltd.  
Jarry Electronics Limited

Microwave Instruments and  
Components Inc.  
Quality Communication Products Ltd.  
Sinclair Radio Laboratories Limited  
C. R. Snelgrove Co. Limited  
Valeriot Electronics (Guelph) Ltd.

#### **HEAT EXCHANGERS**

Avionics Limited  
Decor Metal Products Limited  
Magna Electronics Corporation  
Limited  
Rapid Grip and Batten, Ltd.  
Strite Industries Limited

#### **INSULATORS**

Austin Insulator Division

#### **INVESTMENT CASTINGS**

Cercast Inc.  
Shellcast Foundries Inc.  
Vestshell Inc.  
Welkin Manufacturing Co. Ltd.

#### **LAMINATIONS**

EI-Met Parts Ltd.  
Magnetic Metals of Canada Limited

#### **LIGHT EMITTING DIODES, LIQUID CRYSTALS, DISPLAYS, ETC.**

Bowmar Canada Limited  
National Semiconductors Limited

#### **LOUDSPEAKERS, HEADSETS, ETC.**

Canadian Kitcraft Enterprises Ltd.  
Radio Speakers of Canada Limited  
RCA Limited

#### **MAGNETIC TAPE**

Audio Magnetics Corporation  
of Canada Ltd.  
Cartrex Electronics Limited  
Pan Canada Magnetics Limited

#### **MEMORY PRODUCTS**

Microsystems International Limited  
Siltek International Limited

#### **METAL PARTS, CABINETS, ETC.**

Decor Metal Products Limited  
Digital Components Limited  
Graphico Precision Works Ltd.  
Hammond Manufacturing Company  
Limited  
Magna Electronics Corporation  
Limited

#### **COMPONENTS SECTION**

Rapid Grip and Batten, Ltd.  
Space Circuits Ltd.  
Strite Industries Limited  
Valeriot Electronics (Guelph) Ltd.

**METER COMPONENTS**

Automatic Coil Manufacturing Ltd.  
Canadian Research Institute  
Geleco Electronics Ltd.  
O & W Electronics Limited

**MICROCIRCUITS**

Canadian Marconi Company  
Desitron Company Limited  
Epitek Electronics Ltd.  
Garrett Manufacturing Limited  
Linear Technology Inc.  
Microsystems International Limited  
North American Microcircuits Ltd.  
Siltek International Limited

**MICROPHONES**

Canadian Astatic Limited  
Micro-Com Electronics Ltd.  
RD Systems of Canada Limited

**MICROWAVE COMPONENTS**

Com Dev Ltd.  
Desitron Company Limited  
Microwave Instruments and  
Components Inc.  
Neosid (Canada) Limited  
Raytheon Canada Limited  
Strite Industries Limited  
Varian Associates of Canada Ltd.

**MOTORS, SUB-FRACTIONAL H.P.**

Brevel Products Limited  
Electrohome Limited  
Emerson Electric Canada Limited  
Franklin Electric of Canada Ltd.

**PACKAGED ELECTRONIC  
CIRCUITRY**

Anro Electronic Industries Ltd.  
Bowmar Canada Limited  
Centralab Canada Limited  
Croven Ltd.  
CTS of Canada Limited  
Epitek Electronics Ltd.  
Erie Technological Products  
of Canada Limited  
Ferritronics Limited  
Garrett Manufacturing Limited  
Lindsay Specialty Products Ltd.  
Linear Technology Inc.  
Microsystems International Limited  
North American Microcircuits Ltd.  
Siltek International Limited  
C. R. Snelgrove Co. Limited

**PHONOGRAPH COMPONENTS**

Canadian Astatic Limited

**PHOTOCONDUCTIVE AND  
PHOTO-ELECTRIC DEVICES**

CTS of Canada Limited  
National Semiconductors Limited

**PLATING**

Avionics Limited  
Graphico Precision Works Ltd.  
Hamilton Engraving Company Ltd.  
Lake Engineering Co. Limited  
Space Circuits Ltd.

**POTENTIOMETERS**

Amphenol Canada Limited  
Centralab Canada Limited  
CTS of Canada Limited  
Dale Electronics Canada Ltd.  
Precision Electronic Components  
(1971) Ltd.  
Renfrew Electric Company Limited

**POWDERED IRON AND FERRITE  
COMPONENTS**

Canadian Stackpole Limited  
Neosid (Canada) Limited  
Northern Electric Company Limited

**PRINTED CIRCUITS**

Avionics Limited  
Canadian Marconi Company  
Canadian Research Institute  
Circuit Graphics Limited  
Garrett Manufacturing Limited  
Graphico Precision Works Ltd.  
GTE Automatic Electric (Canada)  
Limited  
Hamilton Engraving Company Ltd.  
Hylogic Ltd.  
Lake Engineering Co. Limited  
Lazer — Tech Ltd.  
Micro-Com Electronics Ltd.  
Northern Electric Company Limited  
Quality Communication Products Ltd.  
Raytheon Canada Limited  
RDC Industries Ltd.  
Space Circuits Ltd.  
Vortex Design Ltd.

**RECTIFIERS**

CTS of Canada Limited  
Erie Technological Products  
of Canada Limited  
Syntron (Canada) Limited

**RELAYS**

Anro Electronic Industries Ltd.  
Arrow-Hart of Canada Ltd.  
Clare C.P. of Canada Ltd.  
Electronic Hardware Specialties Ltd.  
ESNA Limited  
Jarry Electronics Limited  
Multi-State Devices Ltd.  
Northern Electric Company Limited  
Renfrew Electric Company Limited  
Stegg Electric Ltd.

**RESISTORS**

**Composition**

Canadian Stackpole Limited  
Renfrew Electric Company Limited

**Film**

Constanta Co. of Canada Ltd., The  
Welwyn Canada Limited

**Glazed**

Dale Electronics Canada Ltd.  
Renfrew Electric Company Limited

**Network and Wafers**

Constanta Co. of Canada Ltd., The  
Garrett Manufacturing Limited  
North American Microcircuits Ltd.  
O & W Electronics Limited  
Renfrew Electric Company Limited

**Power**

Electronic Hardware Specialties Ltd.  
Renfrew Electric Company Limited

**Ribbon**

Constanta Co. of Canada Ltd., The

**Variable**

Amphenol Canada Limited  
CTS of Canada Limited  
Dale Electronics Canada Ltd.  
Electronic Hardware Specialties Ltd.  
Precision Electronic Components  
(1971) Ltd.  
Renfrew Electric Company Limited

**Wire-Wound**

Canadian Research Institute  
Dale Electronics Canada Ltd.  
Electronic Hardware Specialties Ltd.  
Renfrew Electric Company Limited

**SEALS**

Quality Hermetics Limited

**SENSORS**

Constanta Co. of Canada Ltd., The  
Multi-State Devices Ltd.  
RCA Limited

**SERVOS AND SYNCHROS**

Novatronics of Canada Limited

**SOLDER AND FLUXES**

Cramco Solder Alloys

**SOLENOIDS**

Anro Electronic Industries Ltd.  
General Magnetic Products of  
Hawkesbury Limited  
Jarry Electronics Limited

**SOLID-STATE DEVICES**

Bowmar Canada Limited  
Canadian Marconi Company

## Components Section (Cont)

Epitek Electronics Ltd.  
Garrett Manufacturing Limited  
General Instrument of Canada Ltd.  
Linear Technology Inc.  
Micro-Com Electronics Ltd.  
Microsystems International Limited  
Multi-State Devices Ltd.  
National Semiconductors Limited  
North American Microcircuits Ltd.  
RCA Limited  
Siltek International Ltd.  
Syntron (Canada) Limited

### SWITCHES

Arrow-Hart of Canada Ltd.  
Centralab Canada Limited  
CTS of Canada Limited  
Desitron Company Limited  
ESNA Limited  
Geleco Electronics Ltd.  
General Precision Industries Ltd.  
GTE Automatic Electric (Canada) Limited  
Harper Oak Ltd.  
Northern Electric Company Limited  
C. R. Snelgrove Co. Limited

### TELEPHONE COMPONENTS

Amphenol Canada Limited  
Bayly Engineering Limited  
GTE Automatic Electric (Canada) Limited  
Mitel Canada Limited  
Northern Electric Company Limited  
Osborne Electric Company Limited  
Quality Communication Products Ltd.  
Superior Continental Canada Ltd.

### TELEVISION COMPONENTS

Automatic Coil Manufacturing Ltd.  
Automatic Winding Corp. Ltd.  
Broy Engineering Limited  
General Instrument of Canada Ltd.  
Lindsay Specialty Products Ltd.  
Philips Electronics Industries Ltd.  
RCA Limited  
Smallwood S. G. Ltd.

### TERMINAL BOARDS

Avionics Limited  
Graphico Precision Works Ltd.  
Harper Oak Ltd.  
Lake Engineering Co. Limited  
Renfrew Electric Company Limited  
Space Circuits Ltd.  
Superior Continental Canada Ltd.

### THERMOSTATS

Harper Oak Ltd.

### TIMING DEVICES

ESNA Limited  
General Instrument of Canada Ltd.

### TRANSFORMERS AND INDUCTIVE COMPONENTS

Anro Electronic Industries Ltd.  
Audio Transformer Company Limited  
Austin Insulator Division  
Automatic Coil Manufacturing Ltd.  
Broy Engineering Limited  
Canadian Marconi Company  
Canadian Research Institute  
Electronic Craftsmen  
Ferritronics Limited  
General Instrument of Canada Ltd.  
Hammond Manufacturing Company Limited  
Jarry Electronics Limited  
Lindsay Specialty Products Ltd.  
Osborne Electric Company Limited  
Polygon Industries Limited  
Quality Communication Products Ltd.  
RCA Limited  
Smallwood S. G. Ltd.  
Valeriotte Electronics (Guelph) Ltd.

### TUNERS

General Instrument of Canada Ltd.  
RCA Limited

### WIRE, CABLE AND CONDUIT

Amphenol Canada Limited  
Boston Insulated Wire and Cable Company, Limited  
Canada Wire and Cable Company Limited  
Digital Components Limited  
Eastern Wire and Conduits Limited  
Fabricon Manufacturing Limited  
Jarry Electronics Limited  
Northern Electric Company Limited  
Phillips Cables Limited

### WOODEN CABINETS

Canadian Cabinets & Furniture Ltd.  
Philips Electronics Industries Ltd.  
RCA Limited



For further information about Canada's electronics industry,  
please contact:

**Electronics Division  
Electrical and Electronics Branch  
Department of Industry, Trade and Commerce  
112 Kent Street  
Ottawa, Ontario K1A 0H5  
Canada**

or the nearest Canadian Trade Office.