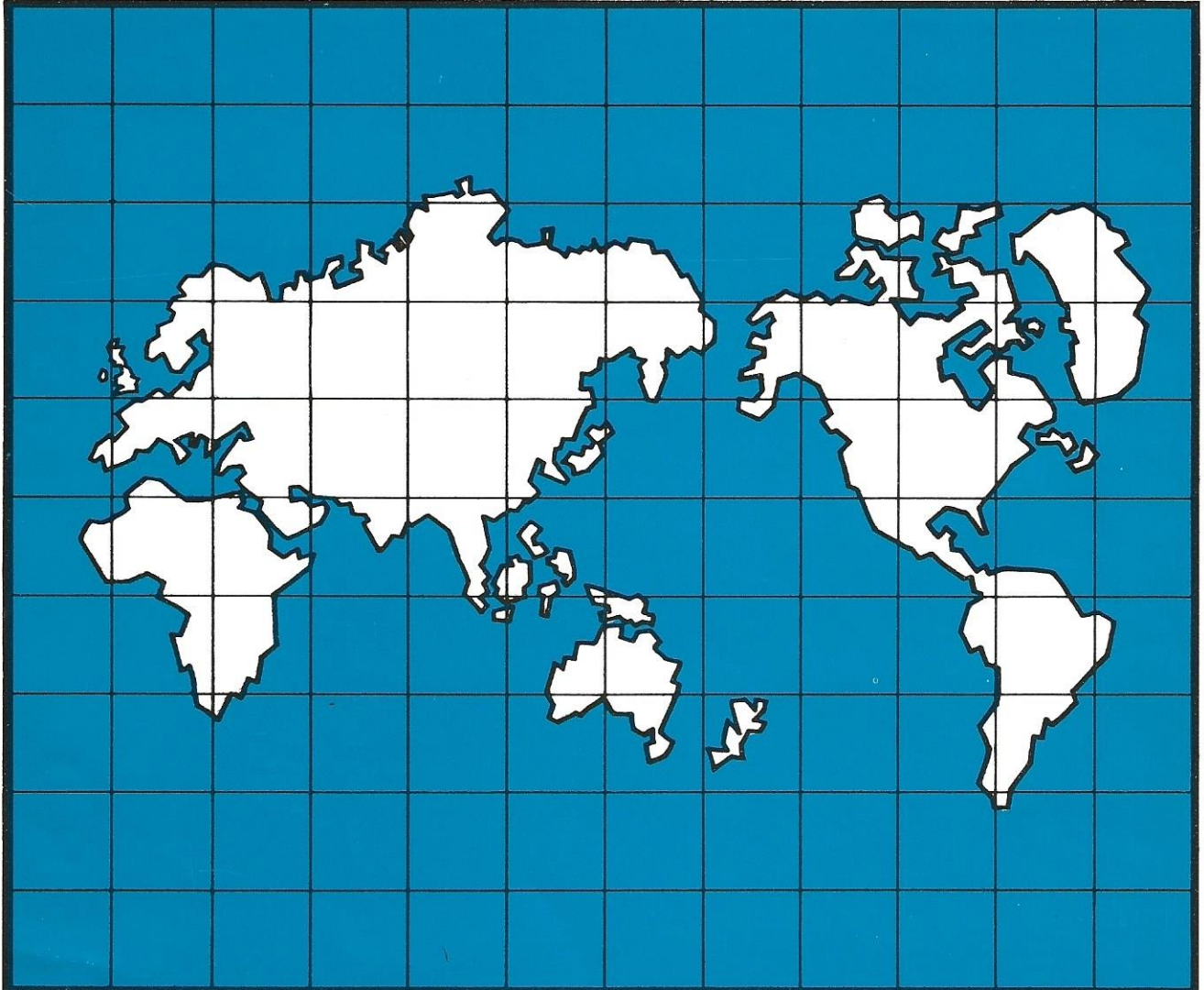


PLANTRONICS  
Frederick Electronics





# Frederick Electronics and Plantronics

## The Names To Remember In Telecommunications.

Frederick Electronics and its parent company, Plantronics, offer diverse and highly reliable lines of telecommunications equipment. Designed and manufactured by Frederick Electronics, this advanced solid-state equipment is marketed to both governments and private sectors of industry and commerce throughout the world. Frederick Electronics is a leading manufacturer of data systems, radio/teletype-writer equipment, and related components for the international as well as the domestic telecommunications market.

Frederick Electronics has extensive in-house capabilities with comprehensive facilities for large-scale production, including complete fabrication, assembly and test. Highly trained engineers and specialists in solid-state communications equipment ensure that new and improved equipment is constantly being designed.

Forty years of combined telecommunication experience by Frederick Electronics and Plantronics—manufacturer of the lightweight StarSet® communication set—makes a strong statement in the market place.

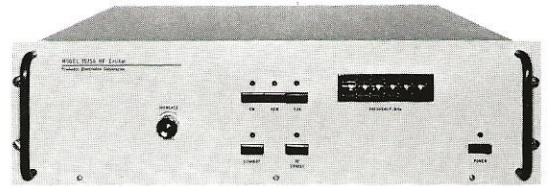
Plantronics manufacturing and sales facilities are located in Canada, Mexico and the United States. Also, sales offices are maintained in Switzerland, France and the United Kingdom, and distributor networks are maintained around the world.



# RF Products

## HF EXCITERS

The Model 1575A High Frequency Exciter is designed to output a modulated radio-frequency signal in the range of 2 to 30 MHz. Numerous options such as 2 and 4 channel ISB, voice, FSK, and remote control allow the 1575A HF Exciter a great degree of flexibility in system implementation.



The 1555 HF Exciter is a seven-band selectable-frequency exciter for use with HF maritime transmitters. The number of switch-selectable transmitter frequencies formerly available—typically 50—is increased to more than 50,000 by the 1555 Exciter. Operation of the Exciter is simple, the Frequency Selector is the only operating control.



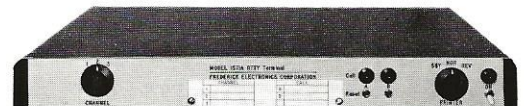
## ARQ TERMINAL

Frederick Electronic's Model 1620 ARQ Terminal utilizes a microprocessor design approach, and complies with CCIR recommendation #476-1. Features include built-in storage, self-diagnostics, remote control, selective calling, and polling.



## HF RADIO RECEIVERS/SYNTHESIZER

The 1500 series provides optimum reception of CW, FSK, and AFSK at an economical cost. The radio receivers can be crystal controlled for fixed channel operation; also, continuous tuning through the available frequencies can be achieved with a companion synthesizer.



Model 1571A RTTY Terminal contains an HF receiver, FSK demodulator and selective call unit.

## RTTY TERMINAL

A self-contained Frederick Electronics diversity HF receiving terminal, with two HF receivers and a diversity demodulator.

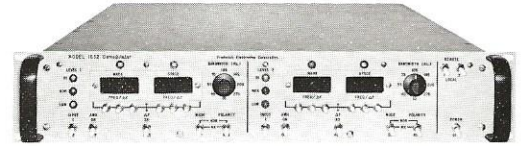


## FSK EQUIPMENT

Frederick Electronics has a full line of audio modulators and demodulators for operating with conventional radio emissions; including F1, F6, A1, and multichannel VFTG.

## TONE DEMODULATORS

Models 1200A, 1203, 1204A, 1630, and 1632 are extremely versatile demodulators. The Model 1632 offers the most flexible design available. It can be operated manually or by remote controlled variables such as frequency selection, mode of operation, and bit rate.



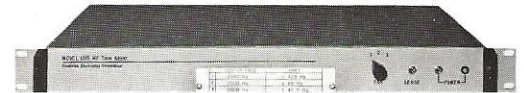
## TONE KEYSER/DEMODULATOR

The Model 1273 is primarily designed to interface a terminal unit to a full or half duplex radio channel. This equipment is ideal for teletypewriter operation over HF radio circuits; and can be used as the FSK modem for the Model 1620 ARQ Terminal.



## TONE KEYSERS

Models 1215A, 1215MF, and 1240 are a series of tone keyers for F1 or F6 operation. These units convert teleprinter data or similar serial binary inputs to suitable audio tones for transmission. The keyers have excellent frequency stability, accuracy, spectral purity, plus close level control.



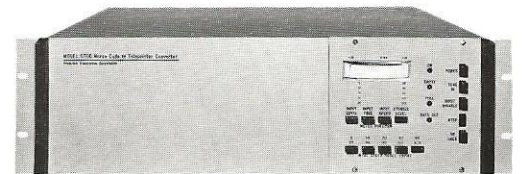
## TUNING DISPLAYS

A number of tuning aids are available which allow, by the use of a CRT display, rapid tuning of an FSK signal.



## MORSE CONVERTERS

Direct conversion from 5, 6, 7, or 8 level teleprinter code to Morse Code is provided by the Model 660C without the use of intermediate tape conversions. A wide range of automatic sending speeds, interface characteristics, and allowance for local or remote inputs are available. Morse Code input is changed by the Model 670C to any desired 5, 6, 7, or 8 level start/stop teleprinter code. It operates with conventional radio receivers and teleprinter equipment.

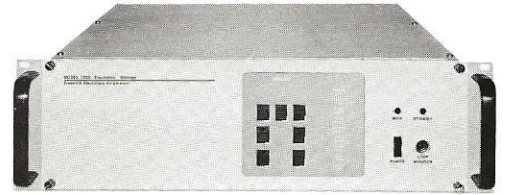




# Data Products

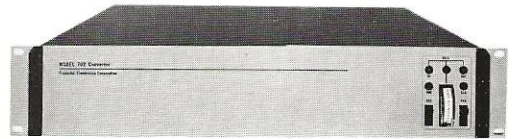
## DATA BUFFERS

The Model 1355 all-electronic Buffer Storage Unit has been built specifically for the needs of the data communications industry. Utilizing new Charge-Coupled semiconductor Device (CCD) technology, the basic unit will accommodate 32,000 characters, expandable to 256,000. Input and output speeds are independently programmable up to 19,200 BPS. Other Frederick Buffers include the Model 1300A and 1350.



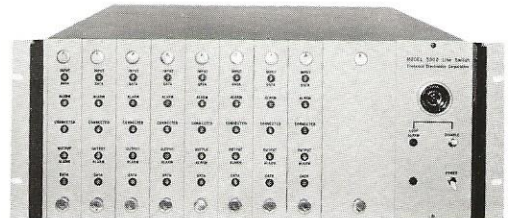
## FORMAT CONVERTERS

Models 702 and 703 interface devices provide compatibility between two dissimilar systems with respect to character code length or bit structure and speed differentials. They permit either on-line or off-line usage, and conversion of any 5, 6, 7, or 8 level code to any other 5, 6, 7, or 8 level code.



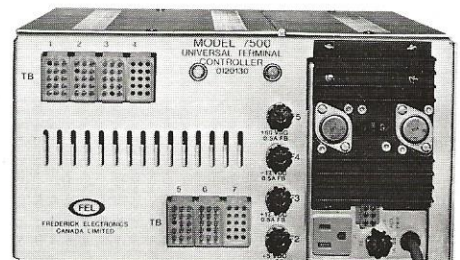
## SMALL SCALE LINE SWITCH

Model 5500 is a solid-state modular teleprinter line switch. It is expandable up to 16 full-duplex subscriber terminations, and is capable of up to 8 simultaneous full-duplex circuit connections. Each terminator is assigned a unique CDC code. Channel connection is produced when a valid CDC selection code is detected after receipt of an EOM and before EOA. Trunking-type connection between the unit is also possible. One termination may be used as an intercept position. Audio and visual alarms are provided to indicate open conditions on subscriber circuits.



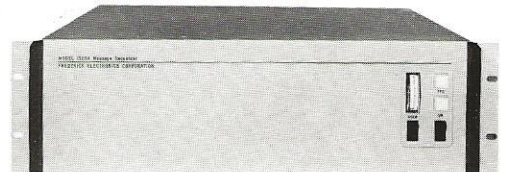
## UNIVERSAL CONTROLLER

Model 7500 adapts to any of the numerous polling networks. It has full program-flexibility for 5, 6, 7, and 8 level codes at transmission speeds of up to 2,400 bauds. The clock circuit can be controlled to give clock-pulses at any baud rate. The crystal time-base can be divided by means of a simple program board. It can be operated in either half-or full-duplex mode, with provisions for tape-idling as well as parity-checking.



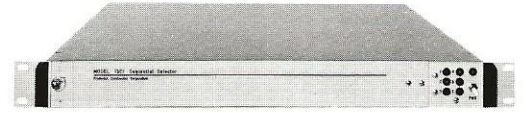
## MESSAGE SEQUENCER

Model 1320A is the focal point of a message concentrator system. It continuously scans up to 10 remote message sources for traffic. These sources may be line, data buffers or translators (Models 702, 1300A, 1350, or 1355). When the presence of data is detected on any input channel the sequencer locks onto that channel and reads the data to the common transmission media.



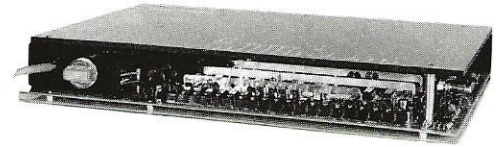
### MULTIPLE LINE SELECTOR

Model 1381 is a message-routing unit which can be programmed to one or more of the five output channels. Two or more units can provide more than five outputs from a single input line. It will interface with various baud rates, code levels, and signalling requirements. A programmed character matrix provides End of Message (EOM) or Call Directing Code (CDC), and End of Address (EOA) code detection.



### DATA SELECTOR

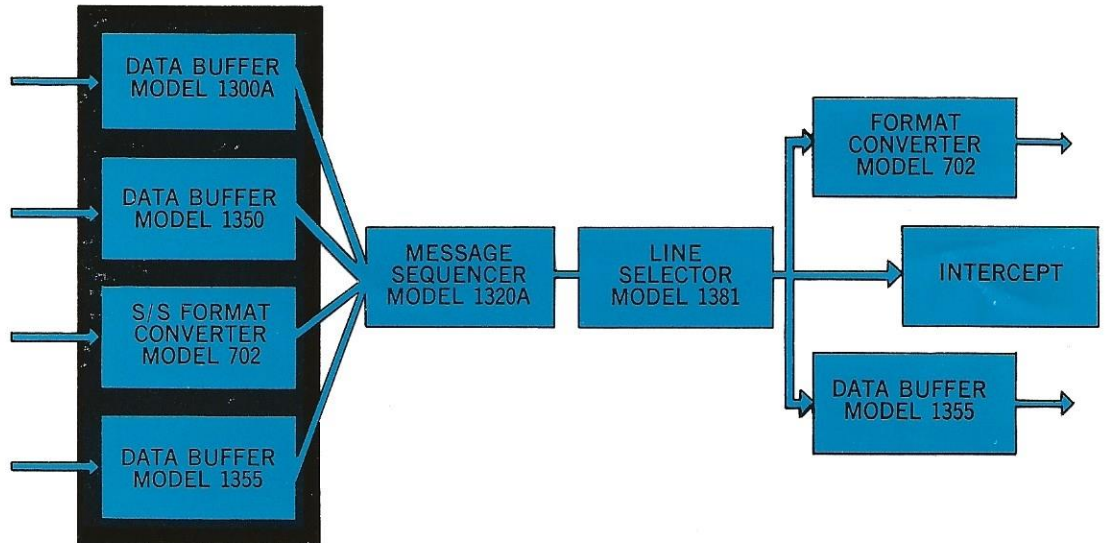
The Model 1387 Data Selector provides for the selective calling control of a data terminal in either a 5-level or 8-level format. The unit detects programmed control characters or character sequences and activates either associated relay circuits or answerback. The characters or character sequences detectable are EOM, EOA, CDC, TSC, and ALARM.



## LINE CONCENTRATOR SYSTEM

Frederick Electronics offers a variety of specialized equipment for unique system applications. Shown below is a line concentrator which is capable of time multiplexing up to 10 input channels into 1 output channel. Buffering and code conversion on the input lines can be accomplished by using other Frederick Electronics products. Message routing may be accomplished with Frederick selectors.

If desired, custom engineering is available to modify standard products or design new ones.





# All-Electronic Telex Switching System



Acceptance of the Frederick Electronics ELTEX® Telex/Data exchange is world-wide.

The all solid-state ELTEX® is completely automatic and computer-controlled. It functions as a concentrator, local exchange, trunk transit exchange, international gateway or any combination. Available for up to 32,000 terminations, ELTEX® provides the flexibility of programmable common control with virtually maintenance-free integrated circuits design. Assignment of routing codes and intercon-

nection restriction are completely flexible. The initial cost of the ELTEX® system is often lower than any other switching system. Significant long-range economies can be realized because of lower operating and maintenance expenses, improved services and low expansion costs.

In addition, ELTEX® offers far greater overall efficiency and operational benefits such as fewer blocked calls, faster connections, more flexibility and automatic recording of traffic and billing data.

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