

3271

IBM 3211
High Speed Printer
IBM 3811
Control Unit

Since the introduction of the 1401 Data Processing System, customers have looked to IBM for advancements in the speed, print quality, and forms handling characteristics of printer output devices.

The initial IBM System Printer, the 1403 Model 2, performed at speeds up to 600 lines per minute; it was followed by the Models 3 and N1 which extended printed output capabilities to 1100 lines per minute. The newest member of the IBM family of high speed printers is the 3211. The 3211 printer and 3811 control unit comprise a subsystem operating in the 2000-lines-per-minute range.

Service Overview:

The 3211/3811 subsystem incorporates hardware circuitry designed to complement an extensive diagnostic support package. A unified service approach consisting of the following items will provide a high degree of problem resolution.

- Comprehensive problem analysis diagrams.
- Program Analysis of cartridge and carriage motion.
- Program measurement of hammer flight timing.
- Fault location test.
- A built-in off-line exerciser and indicator panel.

Systems Features:

Among the significant technical concepts employed in the new printer are:

- An interchangeable train type cartridge consisting of 432 hinged type elements mounted on 108 carriers.
- An oscillating platen moving forward for printing and backward to allow form movement.
- A programmed forms control buffer eliminating paper carriage tapes.
- A powered lift stacker drive assembly.
- A motor driven forms carriage.
- Automatic form thickness adjustment.

Additional Service Enhancements:

- On-line testing through OLTEP in operating system environments.
- An air pressure/vacuum system to maintain train cleanliness.
- An oiler mechanism incorporated into the cartridge assembly.
- A long-life residual which is spool mounted and externally advanced through the print assembly.
- Four bytes of sense data to provide information concerning errors and special conditions within the subsystem.
- Standard Logic Dense technology.
- Error retry capability with selected errors.

This is an CE Career Path "General Systems" product.

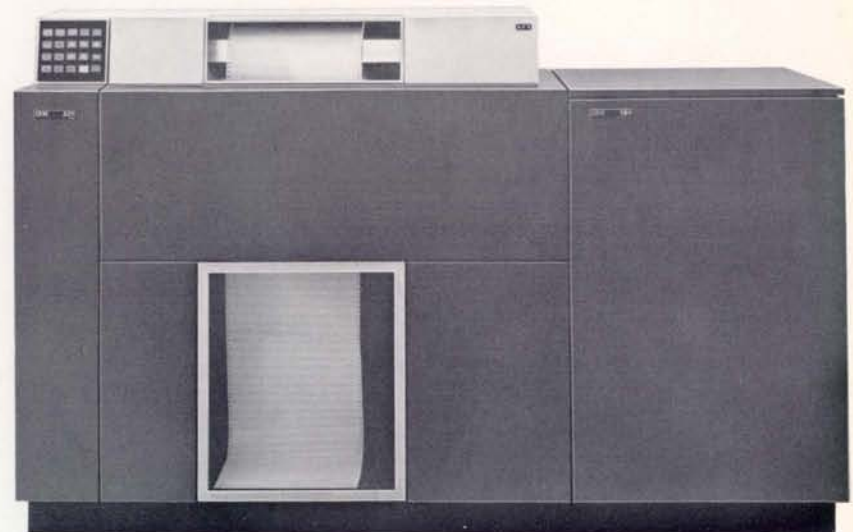
Technology:

At print time, a hammer impacts the type element forcing it and the ribbon into the paper. Just prior to printing, the platen moves forward to a position directly behind the form, and retracts when the print line is completed. The platen assembly automatically senses form thickness relieving the operator of this task. When the printed line is completed and the platen retracted, the form is advanced at rates up to 90 inches per second by a Moving Coil Motor. An electronic buffer performs carriage control functions previously reserved for paper carriage tapes. A program routine will configure this buffer with the appropriate customer designed "tape image" required for a particular job function.

Electronic impulses originating at the Moving Coil Motor will advance the buffer at a rate corresponding to forms motion, thereby providing the necessary relationship between form and carriage.

Enhancements in the stacker area include a drive assembly which increments vertically to maintain the proper relationship between the stacker rolls and the paper stack.

Universal Character Set and interchangeable cartridge are standard features. The number of standard print positions remains 132; however, this number can be expanded to a maximum of 150 positions as a customer option.



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