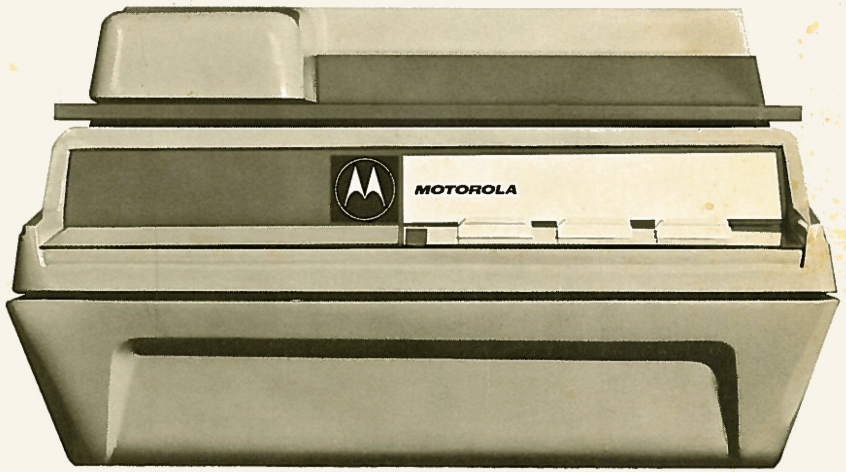
MOTOROLA'S Indiscriminate Reader



ENTER, THE MDR-1000

Industry's first truly low-cost answer to your data-input bottlenecks: a versatile, "makes sense" mark-sense document reader from Motorola.

The MDR reader, an ordinary pencil and ordinary source documents . . . punched, preprinted or pencil-marked cards or pages . . . represent your capital equipment investment. The return is an advanced, highly improved data-entry capability with added premiums of operational cost savings and system flexibility. Raw data is translated directly to computer language and entered in your information processing system. Eliminated, are the intermediate steps of keypunching and keyverifying.

Operation of the MDR Series document reader is entirely automatic — no special skills or training required — and, it is compatible with commonly used I/O hardware. The machine output can be fed directly to teletypewriters, punched or magnetic tape, key punches . . . or directly into the computer.

This remarkable machine leases for less than $100 a month, or can be purchased at prices starting at $2,725.

MOTOROLA

THE INDISCRIMINATE READER

The Motorola MDR-1000 will read practically anything you put under its nose: punched cards, pencil-marked cards, punched or mark-sense data columns on page-size documents of any length. Even punched and mark-sense data combined.

Cards can be entered into the reader manually or automatically with hopper feed. Attended or unattended. Card or page format is flexible; you arrange column spacing and data blocks to satisfy task requirements, not our machine.

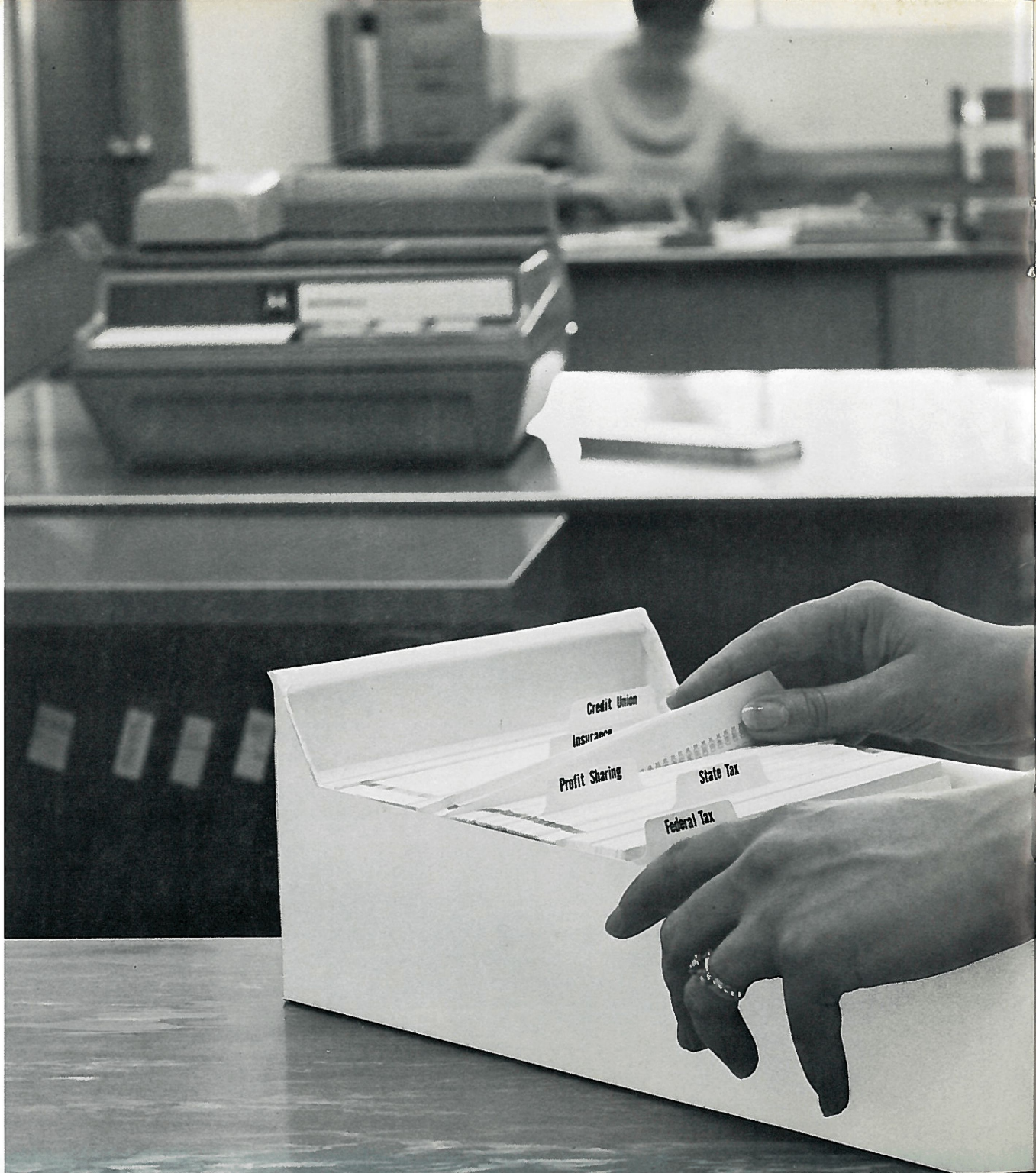
The MDR reads and translates the raw data into standard USASCII language output or, optionally, into other binary decimal codes. Output data can be transmitted in either bit serial or bit parallel form.

The reader output can drive acoustic couplers, common carrier transmission circuits (either voice grade or 150-baud channels), and telephone data sets, including DATA-PHONE Data Sets 103A, 202C, 402C or their equivalents.

DESK TOP CONVENIENCE

The MDR-1000 is small enough to fit on one corner of a desk top, versatile enough to take on tasks of virtually any scope or magnitude. Until now, data entry has been a complicated process, often requiring highly skilled operators and a significant financial investment. The simplicity, versatility and all-around economy of the MDR overcomes these objections, actually allows expansion of data collection while simplifying data entry routines. Unlike keyboard or pushbutton entry devices it provides a convenient audit trail after data has been entered.

The Motorola concept permits the data originator to achieve one-step data transfer — document to machine language — bypassing intermediate keypunching, keyverifying, and other specialized equipment operations.



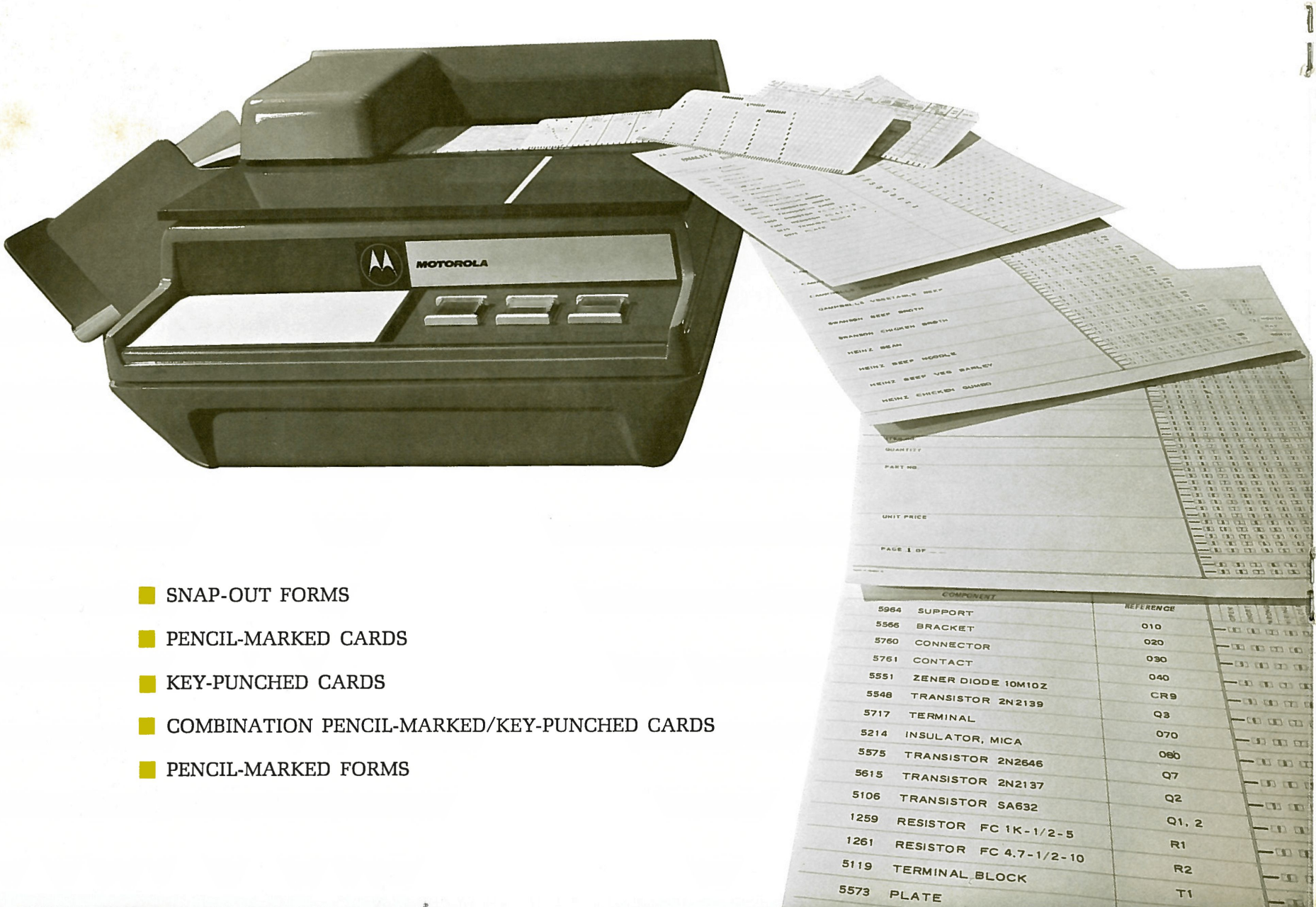
. . . WITH MANY COST-SAVING APPLICATIONS

You will find the MDR useful anywhere data is to be recorded or processed by computer media such as magnetic tape, punched tape, key punches, or where it is transmitted directly into the computer. Applications are virtually limitless. Inventory control, scheduling, market analysis, trouble reporting/analysis, payroll, medical/hospital, computer program, and education records are only a few examples.

Without disrupting present work routines, you can implement direct data entry on incoming orders, parts inspection, warranty statistics, payroll deductions, quality control.

In one major Bell Telephone subsidiary, the MDR is being used to speed trouble reports on their way only seconds after they have been reported. The time span from "trouble reported" to "corrective action started" has been reduced from over 12 hours to 5 minutes, costs cut in half compared to manual systems.

At a large government electronics manufacturing facility, incoming Quality Assurance data is reported directly to the Purchasing department by means of an MDR-1000. Patterns and trends are discernible in a greatly compressed time span, supplying management with real-time information for critical purchasing decisions.

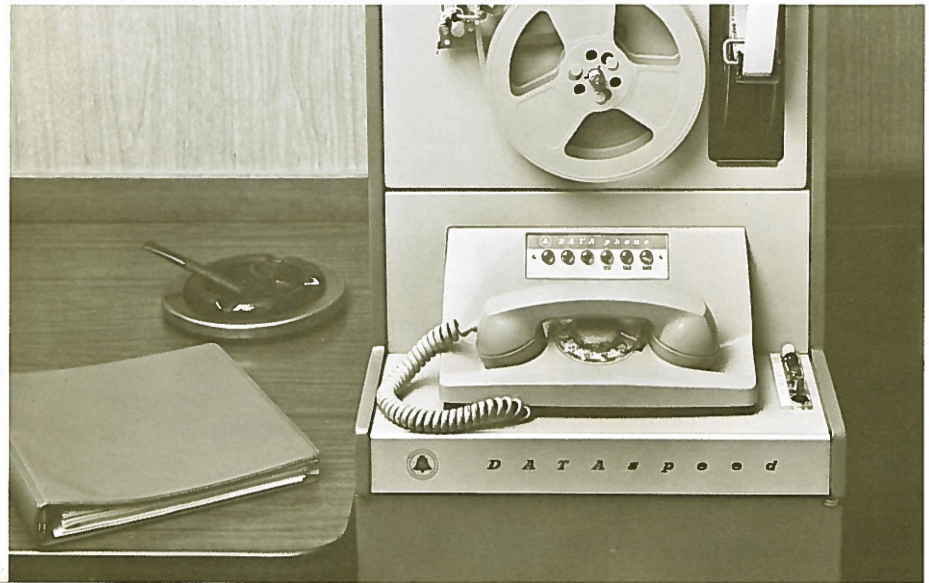


- SNAP-OUT FORMS
- PENCIL-MARKED CARDS
- KEY-PUNCHED CARDS
- COMBINATION PENCIL-MARKED/KEY-PUNCHED CARDS
- PENCIL-MARKED FORMS

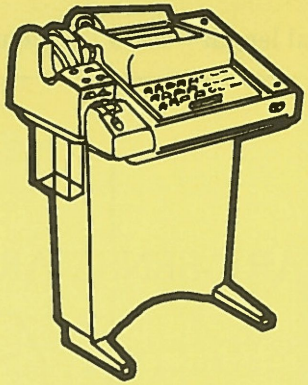
TRANSMISSION MEDIA

DATA SET TRANSMITTER

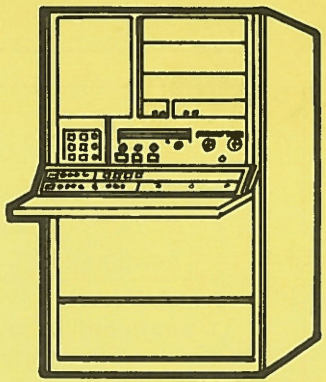
DATA SET RECEIVER



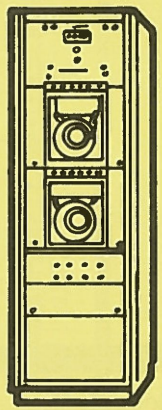
OUTPUT DEVICES



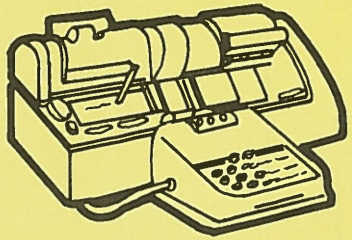
TELETYPEWRITER/
TAPE PUNCH



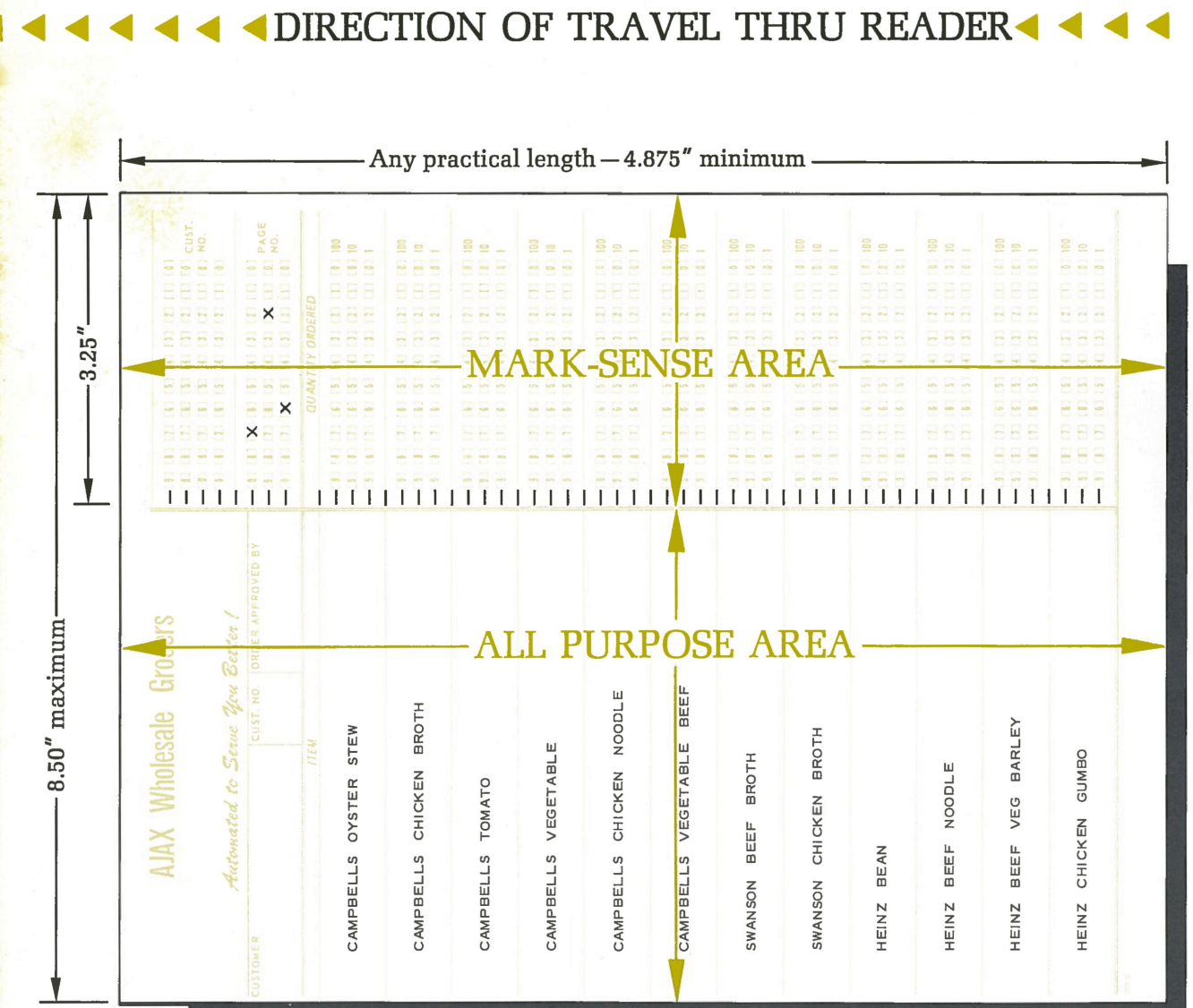
COMPUTER



MAGNETIC
TAPE RECORDER



KEY-PUNCH



Mark-sense format for page size documents

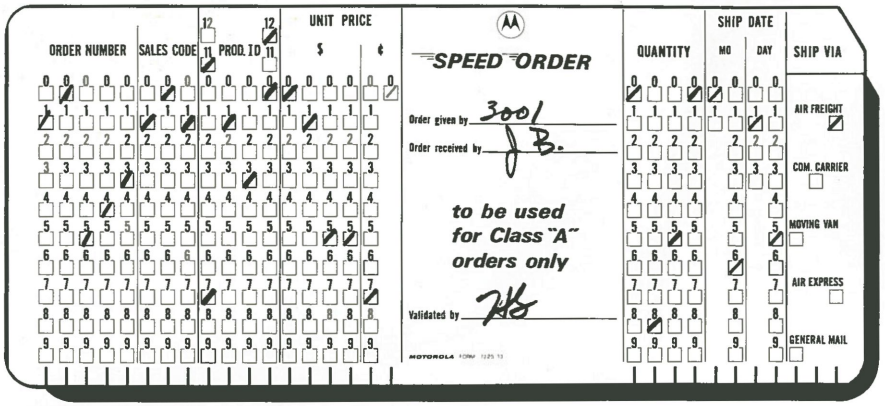
FORMATS FOR EVERY USE

With the Motorola MDR, you are free to design each document for optimum human intelligibility and accuracy. The MDR will handle standard punched cards or documents up to $8^1/_2$" wide by any length. The cards can contain information that has been pencil marked, punched or both on one card. Format of the marks and punching conforms to normal Hollerith coding with a maximum of 12 data positions per column. Formats are identical for documents and cards. This is made possible by holding the width of the reading area to a strip $3^1/_4$" wide — the industry standard for tab cards.

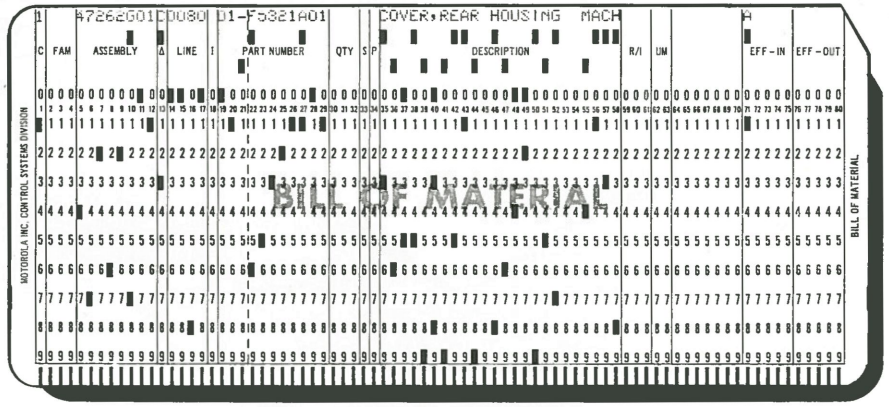
The $3^1/_4$" strip runs the length of the card or page and is positioned along the right-hand edge of the document. The remainder of the document may be used for whatever purpose the user's application requires.

ONLY AN MDR-1000 WILL READ ALL 3

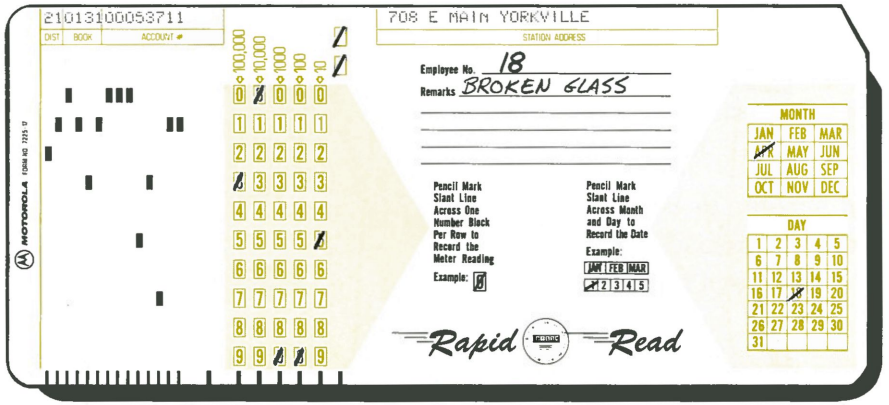
Pencil-Marked Cards



Punched Cards



or Pencil-Marked and Punched Combined

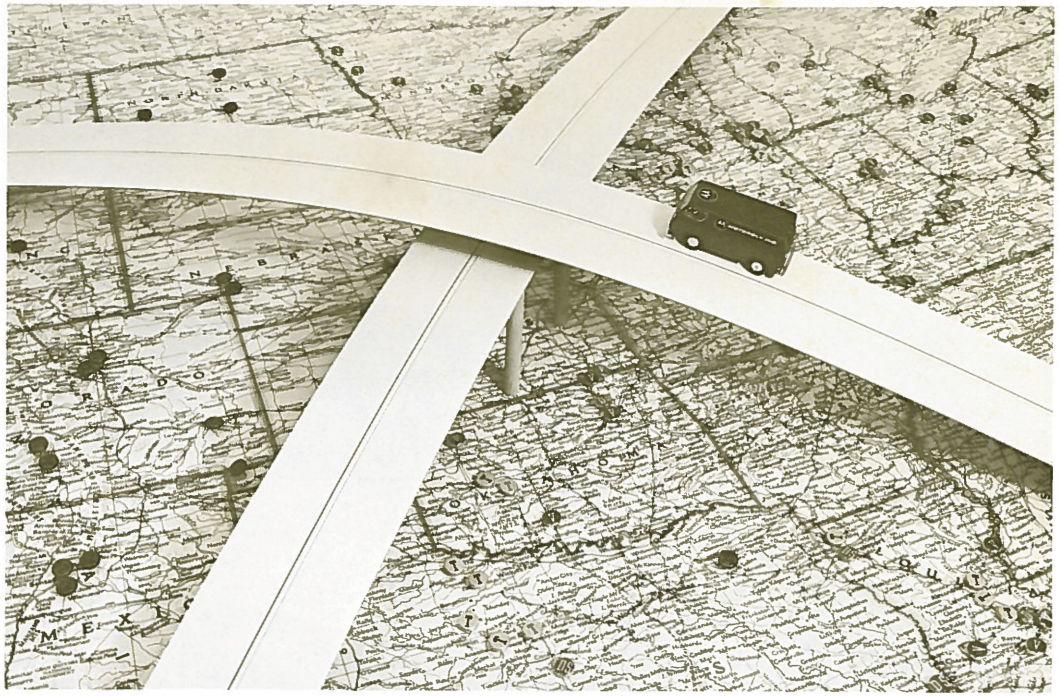


TYPICAL APPLICATIONS

Airline Ticket Reservations
Credit Reports
Computer Programming
Department Store Inventory Control
Engineering Calculations
Financial Records
Governmental Reports & Records
Health Statistics & Analysis
Inventory Control
Library Records
Medical Reports
Market Analysis
Order Entry
Police Records
Patient Billing
Payroll Deductions
Production Control
Parts Inspection
Quality Assurance
Railroad Freight Routing
Service Reporting
Student Records
Telephone Time & Charge Reporting
Utility Meter Reading
Wage & Salary Administration
Warranty Records

FORMS DESIGN SERVICE

A complete design service, including both layout and printing of tab cards and forms, is available from Motorola. Alternatively, MDR users may choose to design their own documents, with or without the aid of local forms and tab card vendors. For the latter, Motorola will furnish an explicit design specification (Motorola Specification MDR-7232-1) outlining all essential design parameters.



PURCHASE OR LEASE A MOTOROLA DOCUMENT READER

Motorola offers you a choice of plans to help you go "on line" with utmost economical convenience. Investigate — either a direct purchase of the MDR Document Reader, or a lease contract.

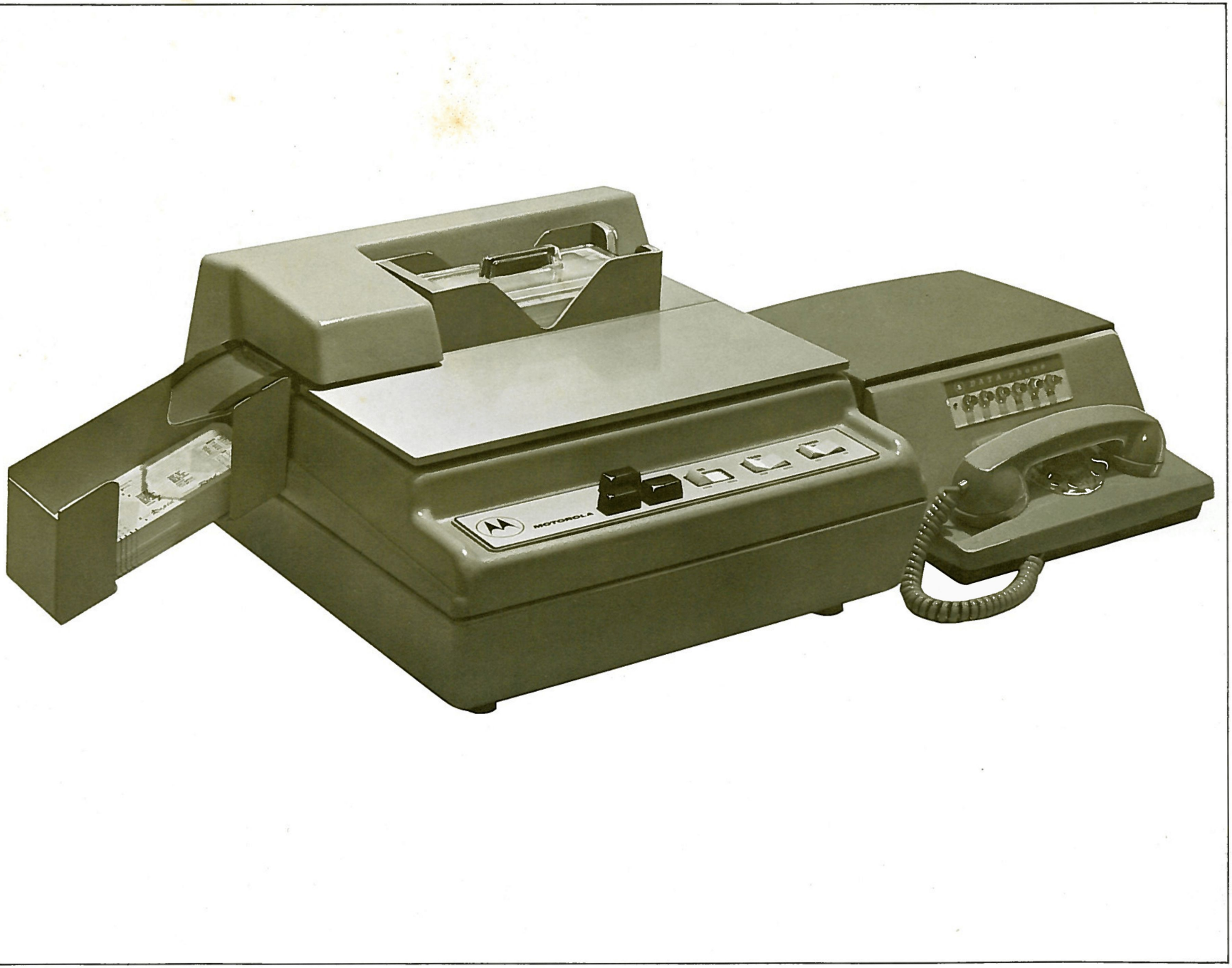
Lease rates start at $76. monthly (depending on the MDR Model selected). A complete schedule of lease rates is available from your local Motorola Representative. Check with him for full details of the plan best suited to your needs.

SERVICE ASSURED

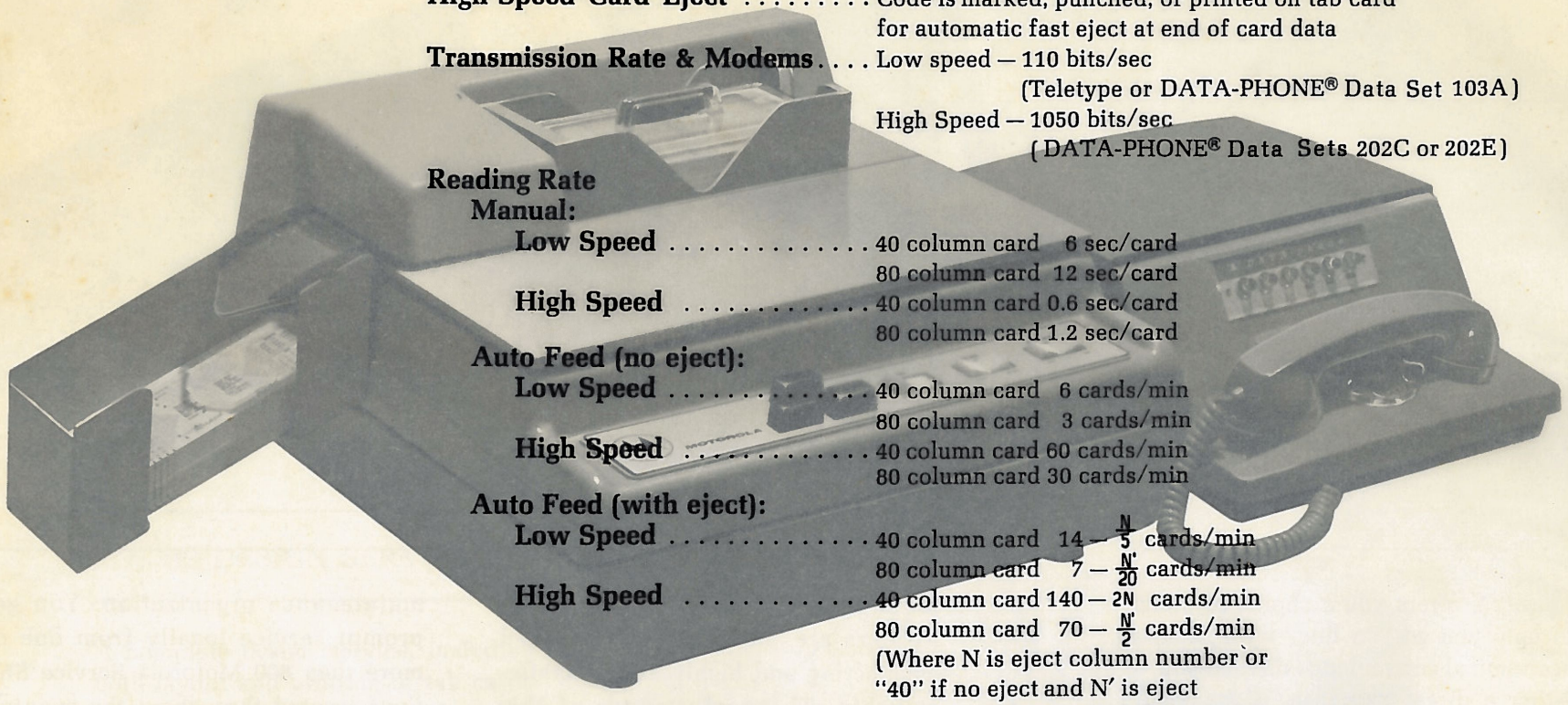
Motorola MDR-1000 Series Document Readers are the result of advanced engineering and highly skilled craftsmanship. The performance of this equipment has been job-proven in a wide variety of applications. When you specify Motorola, you can depend on trouble-free operation.

You're also assured of reliable maintenance service, because Motorola equipment is backed by a nation-wide maintenance organization. You get prompt service locally from one of more than 800 Motorola Service Stations located throughout the country.

Skilled, factory trained technicians are ready to assist you with your installation and operating start-up procedures. This same national service organization offers swift maintenance service to Motorola customers anywhere in the United States.


MOTOROLA

MDR-1000 FACTS



Input Language	Hollerith code
Output Language	USASCII code
Parity	Odd, even, or none
Feed	Manual (card or page) or Automatic (cards using hopper)
Hopper Size	250-card capacity, hoppers available for 51-column and 80-column size tab cards
High Speed Card Eject	Code is marked, punched, or printed on tab card for automatic fast eject at end of card data
Transmission Rate & Modems	Low speed — 110 bits/sec (Teletype or DATA-PHONE® Data Set 103A)
	High Speed — 1050 bits/sec (DATA-PHONE® Data Sets 202C or 202E)
Reading Rate	
Manual:	
Low Speed	40 column card 6 sec/card
	80 column card 12 sec/card
High Speed	40 column card 0.6 sec/card
	80 column card 1.2 sec/card
Auto Feed (no eject):	
Low Speed	40 column card 6 cards/min
	80 column card 3 cards/min
High Speed	40 column card 60 cards/min
	80 column card 30 cards/min
Auto Feed (with eject):	
Low Speed	40 column card $14 - \frac{N}{5}$ cards/min
	80 column card $7 - \frac{N'}{20}$ cards/min
High Speed	40 column card $140 - 2N$ cards/min
	80 column card $70 - \frac{N'}{2}$ cards/min
	(Where N is eject column number or "40" if no eject and N′ is eject column number or "80" if no eject.)
Communications Interface	Voice grade circuit or 150-baud data channel
Electronic Interface	Circuit per EIA Standard RS-232B or dry contact (20 mA or 60 mA)
Hopper Empty Alarm	Attended: both audible and visible
	Unattended: code transmitted to receiving data terminal
Power	115V, 60Hz
Dimensions	$16\frac{1}{4}$″ W by $17\frac{3}{4}$″ D by 10″ H
Weight	45 lb.
Color	Beige

676-1000

JOHN KRUPAR

THERE'S A MOTOROLA SALES OFFICE NEAR YOU

WESTERN REGION

Sausalito, Calif. 94965
3030 Bridgeway Blvd.
Phone: (415) 332-5070

Bellevue, Washington 98004
Carlson Building
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Phone: (206) 454-3322

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Phone: (412) 563-2566

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Phone: (215) 839-6344

Atlanta, Georgia 30305
443 E. Paces Ferry Road
Phone: (404) 261-8656

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Phone: (504) 835-6144

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4835 S. Peoria
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Montreal (Quebec)
155 Graveline Street
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Toronto, Agincourt (Ontario)
3125 Steeles Avenue E.
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Cable: CONTRONIC HITCHIN

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P.O. Box 5409
Phoenix, Arizona 85010, U.S.A.
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TWX: 602-949-0118
Telex: 667-477 MOTORLIC PHX
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