MDS 1101

KEYED DATA RECORDER

TRANSFORMS
YOUR ENTIRE
DATA PROCESSING
INSTALLATION
TO
MAGNETIC TAPE

MDS 1101 Keyed DATA-RECORDER

This is the basic unit in the MDS range designed for greater efficiency and accuracy from which all other models have been developed. The facilities provided throughout are:

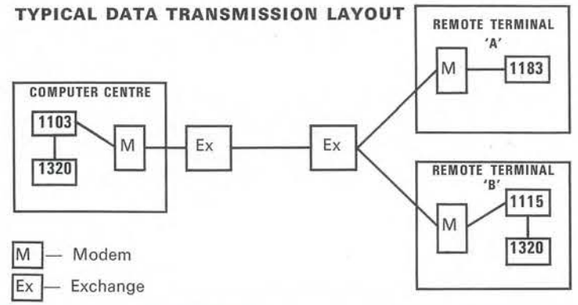
(a) The recording of data on standard industry compatible $\frac{1}{2}$" magnetic tape via a keyboard.
(b) The subsequent verification of the recorded data.
(c) The location of any record on the tape, i.e. a search facility.

Data is recorded normally in 80 character blocks in 7 channel 200 bpi format, character parity (odd or even) and longitudinal parity being included. Any 6 bit coding is available. Data is entered into a core store memory from the keyboard and written automatically on tape following entry of the last character. Error correction during recording is made by back-spacing memory and keying the correct character. This is quick and results in few, if any, errors remaining after entry. Error correction during verification is equally simple.

In addition to the data memory, two program memories are provided which control the operation of the machine in such functions as skipping, duplication of data and determination of alpha and numeric fields. These functions occur at electronic speeds resulting in no delay to manual entry. Programs are entered either from the keyboard or from a program tape.

After a data block is written on to tape, a read-after-write check is carried out automatically to ensure that the data recorded on tape is correct.

TYPICAL DATA TRANSMISSION LAYOUT



The layout shows the computer centre equipped with an 1103 for receiving data from and transmitting data to the remote terminals located at regional offices, depots or factories, as well as the recording and verification of data manually for direct input to the computer. In addition when operated in conjunction with the MDS 1320 Buffered Line Printer provides off-line print capability at up to 300 lines per minute, thus relieving the central computer of time consuming printing operations.

Two terminals are shown, one with a limited printing capability (Terminal A). Here data is recorded and verified via the keyboard of the MDS 1183 before being transmitted to the computer centre for processing using the transmission facility of the same unit. The processed data is received back and printed out, via the typewriter interconnected to the 1183. Thus the single unit provides a complete data processing terminal at a cost of less than £5,000. Terminal 'B' provides for a large volume of print at the terminal to be handled by the 1320 Buffered Line Printer as well as the ability to record and verify data, transmit and receive data as well as tape-to-tape conversion via the 1115. Facilities which previously could be handled only by a computer, are now available at considerably less cost using this system.

data preparation range

1102 Multi-Tape Pooler (MTP)

By using two or three 1102 units in conjunction with a Pooler Control, short batches of data previously recorded and verified on magnetic tape on 1101's or 1102's can be consolidated on to a single tape prior to input to the computer. Consolidation takes place at up to 250 80 character blocks per minute.

1104 Adding Machine Control (AMC)

A net balance add/listing machine, when connected to the 1104, can be operated from the 1104 keyboard. Amounts designated by the stored program, enter the 1104's data memory, and are also entered into the calculating section of the adding machine. Non-add numbers can be entered and printed. The add/listing machine can be used in its normal function when not in use with the 1104.

1105 Paper Tape Reader (PTR)

Automatically reads data punched in paper tape and writes it on to magnetic tape. Variable data can be added via the 1105's keyboard. The 1105 reads 5, 7 and 8 channel tape recorded in odd or even parity or without parity at a speed of 400 characters per second. The data is recorded on the magnetic tape without conversion i.e., where a hole appears in the paper tape a bit will be recorded on the magnetic tape in the same channel.

1106 Punched Card Reader (PCR)

Simplifies and speeds up the job of transcribing variable information, along with coded data from punched card turnaround documents, to magnetic tape. Automatically reads all the data from cards or only selected columns recording it on to magnetic tape in the 1106. In manual cycle, handwritten data or other variable information can be manually keyed on the tape in addition to data read from the card.

1118 Data List Printer (DLP)

Provides printed output from a computer magnetic tape read by the 1118, via the interconnected IBM 735 input/output typewriter. Printing is at a speed of 15 characters/second at 10 characters/inch. The 1118 system will operate in either an "edit" or "non-edit" mode. In the former, specified characters recorded on the tape control the operation of the typewriter while in the latter each block is printed out as one line of print.

1181 Typewriter Keyboard (TWK)

For applications where documents are to be manually typed, and statistics compiled from the typed information, the 1181 provides the recording of the typed data in BCD code on magnetic tape at the same time as the document is typed. The input/output typewriter is interfaced to the DATA-RECORDER. Information typed on the keyboard enters the core storage unit of the DATA-RECORDER, then is written on the magnetic tape. The system is so arranged that errors in typing can be corrected both on the document and in the core store.

data transmission and printer

1103 Long Distance Communication (LDC)

With the 1103, business data is transmitted accurately, economically at high speed to a second 1103, over regular voice grade facilities. The data is recorded, verified, transmitted and received all on magnetic tape . . . and is designed for use with standard modems and transmission systems. It obsoletes the single-use terminal.

1109 Punched Card Reader — Long Distance Communication

Provides the card reading facilities of the 1106 and the data transmission features of the 1103 into a single, flexible unit for specialized applications.

1112 Adding Machine Control — Long Distance Communications

This combination provides the add/listing function of the 1104 and the data transmission feature of the 1103 in one machine. The facilities provided are identical to those of each individual unit.

1115 Paper Tape Reader — Long Distance Communication

A further combination which provides tape-to-tape conversion (1105) and data transmission feature (1103) in one machine. Details of the facilities provided are given under the individual machines.

1183 Data List Printer — Long Distance Communication

The facilities provided in this unit make it a complete data terminal. Data is recorded and verified, transmitted and the processed data received and printed out on one machine. For details of the features available see the 1103 and 1118.

1320 Buffered Line Printer

This unit consists of an Anelex 4000 printer mechanism to which has been added a buffer store and control electronics by MDS. The printer is operated and controlled by the DATA-RECORDER to which it is connected. Data read from the magnetic tape is printed out at up to 300 lines per minute. It will reduce on-line computer printing time and eliminate, in many cases the need for computers at remote terminals required to handle the high volume of printing only.

ENTRY, VERIFICATION AND SEARCH FACILITIES ARE PROVIDED AS STANDARD ON ALL THE ABOVE MODELS IN ADDITION TO THE RESPECTIVE FUNCTIONS DETAILED.

advantages of the

MDS DATA RECORDER

★ INCREASED OPERATOR OUTPUT

Higher productivity, ranging up to as much as 100%, depending upon the application, results from:

- Electronic operation of the machine allows operator to maintain a smooth keying rhythm.
- Simple and quick error correction procedures.
- Almost silent operation minimizes operator fatigue.

★ IMPROVED SPEED AND ACCURACY OF COMPUTER UNIT

- Computer input time on magnetic tape is significantly less.
- Accuracy of input data reduces computer re-run time.

★ REDUCED COST OF MAGNETIC TAPE

- Elimination of cards effects real savings.
- Savings in storage space is considerable.

★ GREATER FLEXIBILITY

- Entry and verification in one unit allows maximum use of all machines.
- Work scheduling is simplified.

★ IMPROVED OPERATOR EFFICIENCY

- Keyboard arrangement is familiar to operators.
- Display lights keep operator fully informed at all times.
- Operators acceptance is very high.

MDS

6400 SERIES DATA-RECORDERS

The 6400 series units operating in the same way as the 1100 series but recording data in 9 channel 800 bpi format on the magnetic tape, will be available shortly. All the facilities provided on the 1100 series units are expected to be included in the 6400 range. More details may be obtained on request.

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