

**FAST, EFFICIENT
COMMUNICATIONS
WITH INFOREX
INTELLIGENT KEY ENTRY™ SYSTEMS**





CAPABLE

Faster record processing, master pooling from remote locations

**Send or receive from either end
...remote System can be unattended**

Continue data entry operations while communicating

Use any industry standard modem — the INFOREX system automatically adjusts to the transfer speed and clock rate of the modem.

Now you can link the powerful and higher throughput capabilities of two or more Inforex Intelligent Key Entry Systems, using standard communication facilities. Records within a single file, or multiple file, varying from 16 to 800 characters in length, can be transmitted as "transparent" text from the tape drive of one Inforex Control Unit to the tape drive of another. The transfer rate is from 300 to 9600 BAUD and up, dependent upon the user's modem.

Numerous operating features, briefly outlined here, make data transfer by the Communications feature easy and rapid — and assure the transmission and receipt of valid, correct data. For example, you save significant amounts of valuable transmission time through the System's automatic deletion of blanks in the text at the sending end and re-insertion at the receiving system. Further, the Communications feature in no way limits your day-to-day data throughput: regular data entry operations can continue at both sending and receiving Systems during tape-to-tape data transfers.

Data transmission is easy. Supervisors can be present at both local and remote Systems, or if the remote data set is in the "Auto Answer" mode, you can leave it unattended. Once the tape is positioned on the initiating System, and a write-enable ring mounted on the receiving System's tape drive, your initiating Supervisor calls the remote System to establish the communications link. When she replaces her handset and presses the data button, communication is ready to take place. And as in all Inforex System operations, your operators know what's going on at all times: meaningful messages in understandable English afford a real-time check on the status of both the data being transferred and the communications link.

PRODUCTIVE

Specification Summary

Transmission Mode— serial, in synchronous mode, 8-bit bytes in transparent text, over half-duplex or voiceband common carrier facilities, or private leased lines. If transmission is to be in blocked form, the Inforex Blocking Feature is required in both Systems.

Modem or Data Set— The System is compatible with all standard modems, and the transfer rate is dependent on the modem used. These rates can range from 300 to 9600 BAUD and up, since the System automatically adjusts to the transfer speed and clock rate of the modem.

Power— 117 VAC 60Hz, 22 watts, with power source on same line as Control Unit.

Cabling— From Control Unit to Modem, std. 10' cable supplied by Inforex, 40' max. Cable from Modem to telephone line supplied by Modem manufacturer or telephone company.

Throughput Power

... the reason for choosing an INFOREX System

The 1301 and 1302 Intelligent Key Entry Systems provide an advanced, state-of-the-art data entry capability that maximizes production by placing major emphasis on operating ease and accuracy. They offer several design functions that facilitate every aspect of system operation, including data entry, verification, file interrogation and updating, work flow and operator supervision.

The heart of both the 1301 and 1302 Systems is a shared processor coupled with a choice of highly effective random access disc files which provide a fast response to every operator action. Together with the System's full-record CRT displays and a large vocabulary of descriptive messages, the disc file speeds data preparation and processor logic enforces a high degree of accuracy.

In addition to the Communications Feature described in this brochure, INFOREX also offers an Expanded Tape Processing Capability ... a Blocking Feature ... a Multi-System Supervisor permitting control of up to four Intelligent Key Entry Systems ... a 200 line/minute Printer ... a 1600 BPI phase-encoded Tape Drive ... Reformatting ... an Interval Timer ... and a Stand Alone Tape Drive for direct attachment to IBM computers.



To send or receive data, enter a simple Job Control Statement...

Supervisor at the initiating System depresses the START Key, then keys QS to send (or QR to receive), a two-digit security number, termination characters to identify the end-of-transmission point, a character to break the communication connection when transmission is completed or aborted, up to 14 numbers and/or characters of user information, and the ENTER key.

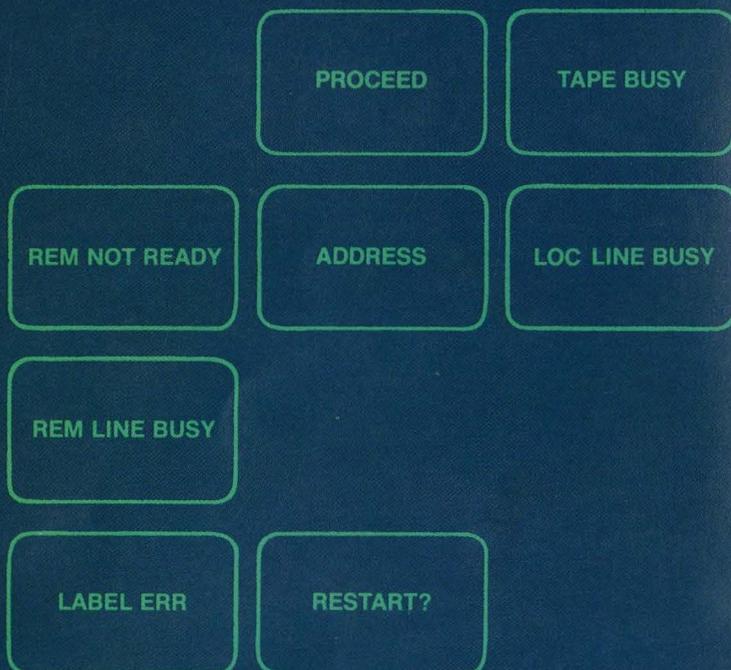
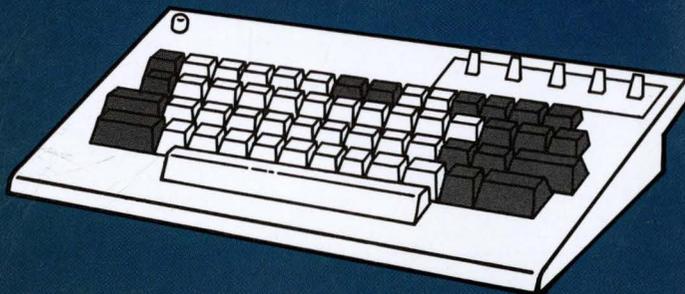
The System makes 8 tests and displays a message:

On the Keystation CRT, PROCEED means all tests are passed, transmission is occurring and the Keystation can be used for other work. TAPE BUSY indicates the remote System is active, performing some other tape-oriented task (a disc-to-tape, tape-to-disc, or tape-to-printer transfer). REM NOT READY means the remote unit's tape drive is not ready; ADDRESS signifies the security number transmitted doesn't agree with the remote unit security number. LOC LINE BUSY means that the local (master) System is now communicating with another Inforex System, or that an earlier transmission was never properly terminated. REM LINE BUSY is displayed for the same conditions at the remote System. (Simple, easily-keyed Job Control Statements will clear the line, abort a transmission in progress, or rewind the tape.) LABEL ERR warns that the termination parameter is not a tapemark nor a pre-defined, valid parameter. RESTART ? is the System's response when an earlier transmission was aborted; keying RESET, DBL ENTER will automatically compare the last record/block sent with the last received, and if both tapes are properly positioned, transmission will proceed. (If the transmission is not a restart of an earlier attempt or a tape record/block comparison is not wanted, keying RESET, DBL END and re-entering the Job Control Statement will initiate the data transfer.)

And to see what the communications status is at any time...

... a resident communications status record can be displayed on the Keystation CRT during data transmission, by depressing the DISP and Q keys. A typical record appears in the form shown at right: The first line shows the communications Job Control Statement and up to 14 characters of user data such as job name and date ... the second line indicates that 56 records have been received (QR), 56 sent (QS), and the transmission has been completed (QC) ... the third line denotes that four line errors or retransmissions have been made and 39 is the sequence record or block count of the last entry ... and the fourth line shows the transmission status as completed. (Other status messages include IN PROCESS, LOCAL TAPE ERROR, REMOTE TAPE ERROR, LINE CHECK, DATA CHECK, REMOTE END OF TAPE detected, LOCAL END OF TAPE detected, and RESTART CHECK resulting from an unequal number of records/blocks sent and received.)

COMMUNICATIVE



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QS, 58, A9W4, B ACCTSP 1231
QR56 QS56 QC
4 ERR PER 39
COMPLETED
```

SELF-RELIANT

Automatically tests for valid data

The System automatically performs the following eight tests to ensure that received data is valid data, or to abort the transmission and display a corresponding message if a test is not passed.

Test

- 1. Two-digit security number check** (agreement of the remote system's security number with number transmitted) before communications can take place, thus preventing unauthorized entry into the System and resident data.
- 2. Agreement of the sequence number of the next record** to be sent with the sequence number expected by the remote system; if numbers disagree, three re-transmits are attempted, before the job is automatically aborted.
- 3. Agreement of the transmitted CRC characters** following each block with CRC characters generated by the receiving system; if they disagree, three re-transmits are attempted before the operation is automatically aborted.
- 4. Agreement of the transmitted record or block length** with the record or block length received. Because each record transmitted may vary in length, each record is checked to insure that all characters sent are received; if the lengths disagree, three re-transmits are attempted before being aborted by the system.
- 5. Response by remote system within 16 seconds** of transmission; if not received, three re-transmits are attempted followed by automatic abort.
- 6. Telephone line break check;** if broken, transmission is stopped.
- 7. Tape parity error check** at sending and receiving systems; if an error is detected, the sending system attempts 16 re-reads or the receiving system then attempts 16 re-writes (with 3" tape advances between each attempt), then if unsuccessful aborts transmission.
- 8. Tape record comparison on restart,** following an aborted transmission; if like records or blocks cannot be found among the last three sent and received, the restart is cancelled.

Message

ADDRESS

DATA CHECK

DATA CHECK

DATA CHECK

LINE CHECK

DISCONN

LOC TAPE ERR

REM TAPE ERR

RESTART CHECK

INFOREX

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