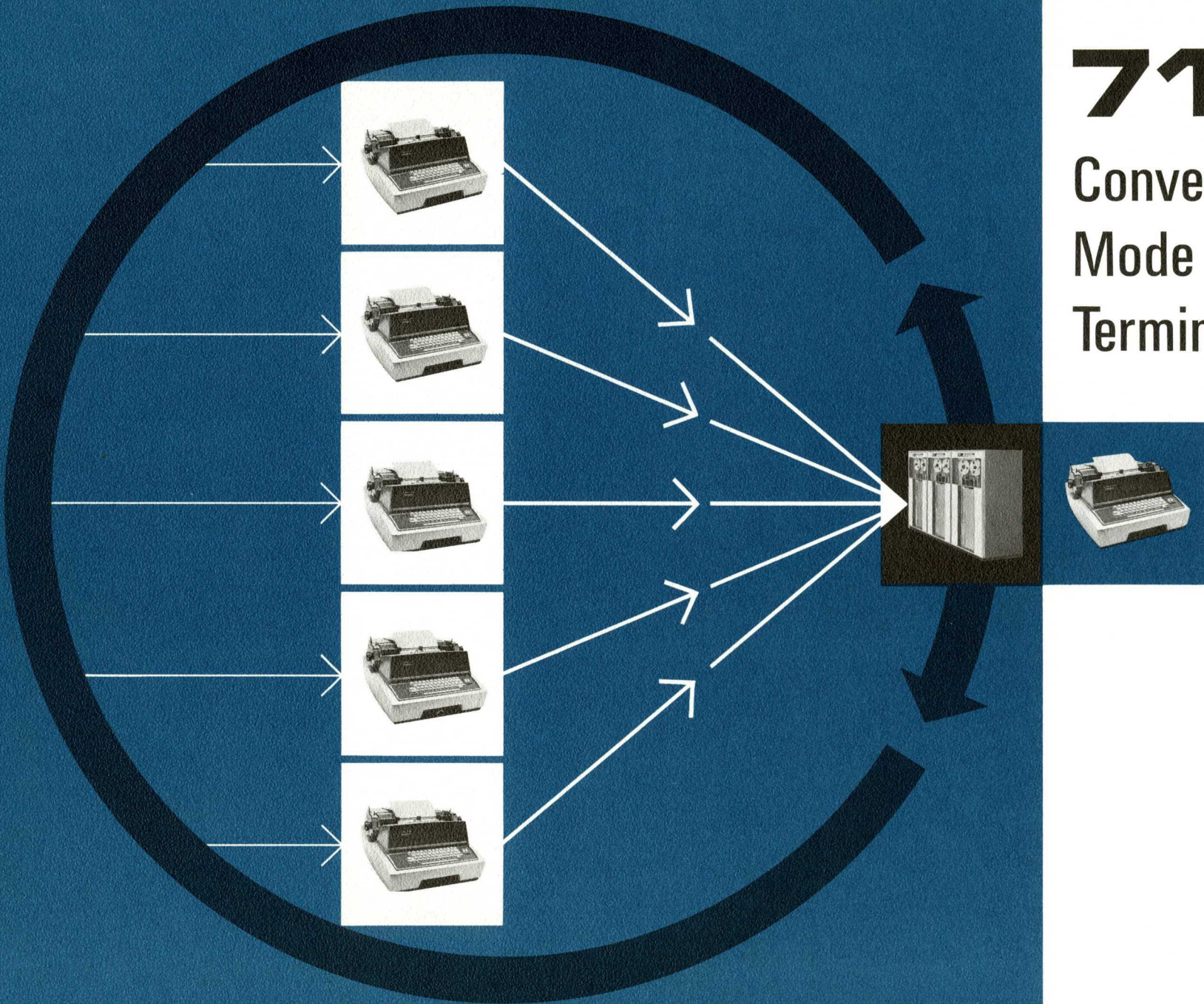


7100

Conversational
Mode
Terminal

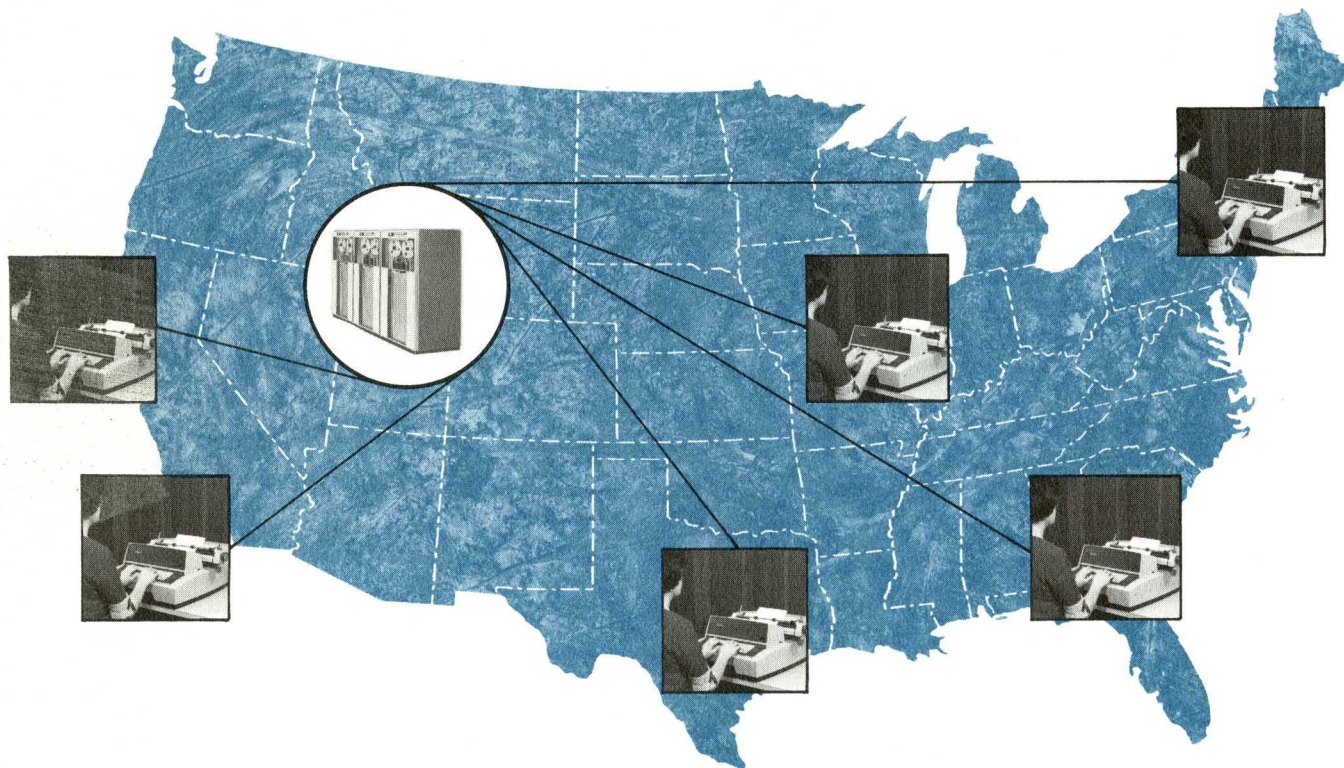


Friden

THIS TERMINAL



puts a distant computer at your fingertips



7100 Conversational Mode Terminal

The FRIDEN* 7100 Conversational Mode Terminal is a keyboard/printer communications terminal designed for time-shared computer systems.

Used with a DATA-PHONE Data Set Series, or similar modem,

the 7100 CMT gives an office direct on-line access to a central computer.

The 7100, with its standard typewriter keyboard, is exceptionally easy to operate.

It may also be used off-line as a typewriter.

*A TRADEMARK OF FRIDEN, INC.

Friden

COMPONENTS

Full ASCII writing machine
Encoding/decoding mechanisms
Electronic serializer/deserializer
Clocking and control circuits

APPLICATIONS

Engineering and Scientific

Solution of equations
Analysis printout
Optimization
Graphic plotting
On-line programming
Technical writing

Commercial

Text editing
File maintenance
Information retrieval
Cataloging
Price lists
Inventory control
Shipping/dispatching
Computer program writing
Systems and procedures documentation

Educational

Instruction
Library retrieval
Curriculum scheduling
Faculty reporting

7100

CONVERSATIONAL MODE TERMINAL



SPECIFICATIONS

KEYBOARD

- Standard typewriter keyboard and shift
- ASCII
- 128 code producing keyboard
- 91 printing characters
- 135 character writing line
- 10 characters per inch/6 lines per inch vertical spacing
- 12.2 characters per second print speed

- Portable/self-contained
- Integrated circuit logic
- Compatible with EIA Interface Standard RS-232-B
- Automatic color ribbon shift in two modes
- Modular plug-in electronics
- Optional desk

- Dimensions: 18" wide by 10" high by 22" deep
- Weight: 90 lbs.
- Electrical characteristics: 115 volt, 60 cycle AC/1.5 amps
- Temperature range (°F): +35° to +115°
- Humidity range: 5% to 95%

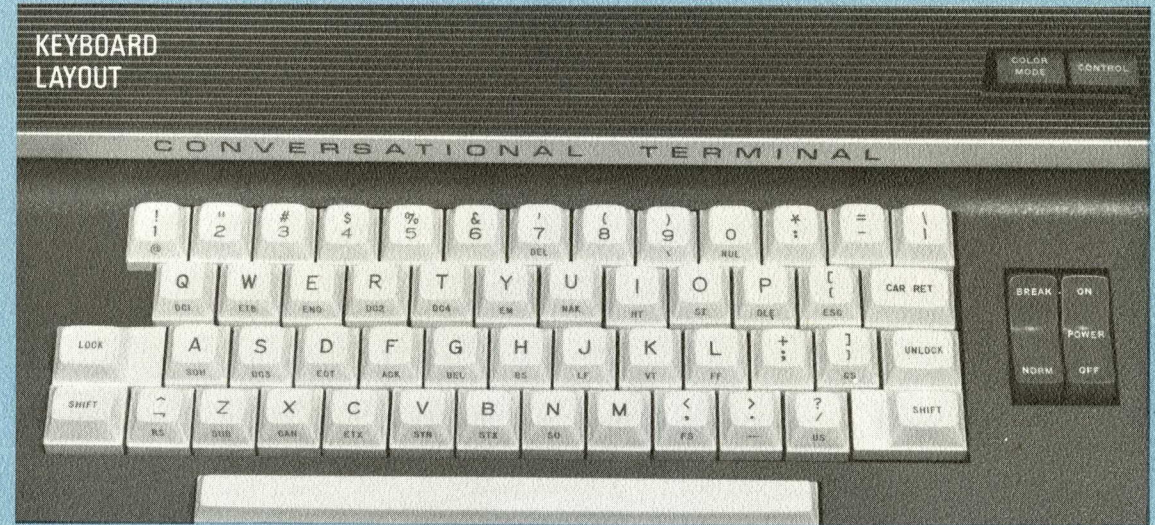
Your local Friden office will be glad to provide complete information.

FRIDEN, INC.

E. R. YOST, Branch Manager
2890 Banksville Rd. • Pittsburgh, Penna. 15216
Phone (Sales) 563-7800 (Service) 563-5582

Friden
DIVISION OF **SINGER**
DIVERSIFIED • WORLDWIDE

KEYBOARD LAYOUT



USASCII CODE CHART (ASCII)

| BITS | b7 b6 b5 b4 b3 b2 b1 | | | | ROW ↓ | COLUMN → | | | | | | | |
|-----------------|----------------------|----|----|----|-------|----------|-----|----|---|---|---|---|-----|
| | b4 | b3 | b2 | b1 | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 0 0 0 0 0 0 0 | 0 | 0 | 0 | 0 | 0 | NUL | DLE | SP | 0 | @ | P | ' | p |
| 0 0 0 0 0 0 0 1 | 0 | 0 | 0 | 1 | 1 | SOH | DC1 | ! | 1 | A | Q | a | q |
| 0 0 0 1 0 0 0 0 | 0 | 0 | 1 | 0 | 2 | STX | DC2 | " | 2 | B | R | b | r |
| 0 0 0 1 0 0 1 0 | 0 | 0 | 1 | 1 | 3 | ETX | DC3 | # | 3 | C | S | c | s |
| 0 0 1 0 0 0 0 0 | 0 | 1 | 0 | 0 | 4 | EOT | DC4 | \$ | 4 | D | T | d | t |
| 0 0 1 0 0 0 1 0 | 0 | 1 | 0 | 1 | 5 | ENQ | NAK | % | 5 | E | U | e | u |
| 0 0 1 0 0 1 0 0 | 0 | 1 | 1 | 0 | 6 | ACK | SYN | & | 6 | F | V | f | v |
| 0 0 1 0 1 0 0 0 | 0 | 1 | 1 | 1 | 7 | BEL | ETB | ' | 7 | G | W | g | w |
| 1 0 0 0 0 0 0 0 | 1 | 0 | 0 | 0 | 8 | BS | CAN | (| 8 | H | X | h | x |
| 1 0 0 0 0 0 1 0 | 1 | 0 | 0 | 1 | 9 | HT | EM |) | 9 | I | Y | i | y |
| 1 0 0 1 0 0 0 0 | 1 | 0 | 1 | 0 | 10 | LF | SUB | * | : | J | Z | j | z |
| 1 0 0 1 0 0 1 0 | 1 | 0 | 1 | 1 | 11 | VT | ESC | + | ; | K | [| k | [|
| 1 1 0 0 0 0 0 0 | 1 | 1 | 0 | 0 | 12 | FF | FS | < | < | L | \ | l | l |
| 1 1 0 0 0 0 1 0 | 1 | 1 | 0 | 1 | 13 | CR | GS | = | = | M |] | m |] |
| 1 1 0 1 0 0 0 0 | 1 | 1 | 1 | 0 | 14 | SO | RS | > | > | N | ^ | n | ^ |
| 1 1 0 1 0 0 1 0 | 1 | 1 | 1 | 1 | 15 | SI | US | ? | ? | O | ^ | o | DEL |

Specifications For
MODEL 7100
CONVERSATIONAL TERMINAL



MANUFACTURER:

FRIDEN, Division of Singer

DESCRIPTION

The Model 7100 is a keyboard/printer communications terminal designed especially for time-sharing computer systems. Components of the Model 7100 are full USASCII writing machine, encoding/decoding mechanisms, solid-state serializer/deserializer, and clocking and control circuits. Extensive use is made of micro-integrated circuits and modular plug-in circuit boards.

The Model 7100 is exceptionally easy to operate. The unit is based on sound human factors principles, developed through long experience by FRIDEN in keyboard design.

The Model 7100 is self-contained and requires only a modem for on-line operation.

No modem is required for direct connection up to a distance of 50 feet.

MODES OF OPERATION

On-line:

- Keyboard/printer (transmit)
- Printer only (receive)

Off-line:

- Document origination

APPLICATIONS

- Information Retrieval
- Computer Time Sharing
- Documentation
- On-Line Programming

KEYBOARD/PRINTER CHARACTERISTICS

- No. of Printing Characters: 91.
- Case Shifting: Upper/lower case shift plus control case shift enables generation of entire 128-character USASCII code set.
- Computer Interrupt Feature: For full duplex installations, BREAK panel switch can be used to signal the transmitting device during data reception.
- Paper Width: 15 inches.
- Carriage Width: 16 inches.
- Type Face: Pica standard with cancelled zero (Ø).
- Writing Line Length: 135 characters at 10 characters/inch.
- Vertical (line) Spacing: 6 lines/inch.
- Maximum No. of Copies: 1 original plus 6 copies.
- Automatic Ribbon Color Shift: COLOR MODE panel switch provides automatic color shift in either of the following modes:
Switch Up: All transmitted messages print in red. All received messages print in black, received control codes do not print.
Switch Down: All control codes cause printing (in red) of corresponding upper case symbol on key. All other codes print in black.

OPTIONAL FEATURES

- Mechanical Nonprint: A lever enables the operator to manually inhibit and restore printing in either the transmit or receive mode.
- Receive Parity Check: When an invalid code is received, the Model 7100 prints the character "M" in red and continues printing.

ACCESSORIES AVAILABLE

- Roll paper holder and mounting stand.
- Pinfeed platen.
- FLEXOFEED platen.

COMMUNICATIONS CHARACTERISTICS

- Interrupt: The BREAK switch interrupts a computer by transmitting a continuous spacing signal on the transmit data line as long as the switch is held depressed.
- Transmission Rate: 12.2 characters per second maximum; field adjustable from 10 characters/second to 12.2 characters/second. The bit rate is adjustable from 100 to 122 bits/second depending on whether one or two stop bits are required.

Transmitted and received characters consist of 10 signal elements (bits) as follows:

START, 7 USASCII bits (low order bit first), EVEN PARITY, STOP

Start bit is defined as spacing condition (binary 0). Stop bit is defined as marking condition (binary 1). Marking signal is continuously transmitted between codes and during idle periods.

The length of the stop bit is field adjustable from one to two bit times in order to provide an 11 bit character format where required.

- Operating Mode: Half-duplex only, except for interrupt provisions.

- Code: United States of America Standard Code for Information Interchange (USASCII), a 7-bit code generating 128 characters maximum with an 8-bit added for even parity.

TIMING CHARACTERISTICS

- Carriage Return: When the Model 7100 is receiving data, time for single carriage return will not exceed the time in milliseconds computed by multiplying the carriage spaces travelled by 7 milliseconds and adding the constant, 220 milliseconds.

Time (milliseconds) = (7 ms x number of spaces) + 220 ms.

Line spacing (indexing) at the margin requires 220 milliseconds delay. Carriage return and line feed are a compound motion and cannot be separated.

- Case Shift: When the Model 7100 is receiving data, no additional time is required to shift to upper or lower case characters. The printing plus the shift is accomplished in one code time.

ELECTRICAL CHARACTERISTICS

- Input Power Requirements: 115 VAC, 60 cps.
- Current Load: 1.5 amps.
- Communications Interface: Conforms to EIA Interface Standard RS-232-B.

PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

- Width: 18 inches.
- Depth: 22 inches.
- Height: 10 inches.
- Weight: 90 pounds.
- Temperature Range: +35 to +115 degrees F.
- Humidity Range: 5% to 95%.

