## OPTION BULLETIN Section 8.9-1 (W)

# Computer Special ystems

June 1973

## Braille-8 Computer Terminal System



## **FEATURES**

- Highly-reliable PDP-8/F Computer System stands alone or serves as a terminal for a large time-shared computer system.
- Compatible with all half- and full-duplex ASCII timesharing systems.
- Simple, reversible, modification to standard teleprinter provides legible, permanent, Braille printout.
- Standard Braille codes are provided. Changes can be easily made to accommodate user preferences.



## GENERAL

Digital's Braille-8 system provides a convenient means by which a sightless person can communicate with a computer. Useful as a terminal device in large computer time-sharing systems, Braille-8 is also a complete standalone computer system.

The Braille-8 system consists of a highly-reliable Digital PDP-8/F computer, modem controller, a modified Teletype Corporation ASR-33 or KSR-33 Teletype, and software that allows the PDP-8/F to convert the standard ASCII signal code of the computer to the special codes required by the modified teletypewriter.

Braille-8 can communicate with all half- and full-duplex ASCII time-sharing systems.

### AVAILABILITY

The Braille-8 system is a product of Digital's Computer Special Systems group and is available, with new installations or for add-on to existing compatible systems, from facilities in Maynard, Massachusetts; Chicago, Illinois; Santa Ana, California; Kanata, Ontario, Canada; Reading, England; Paris, France; Munich, West Germany and Sydney, Australia. Main offices are at 146 Main Street, Maynard, Massachusetts 01754.

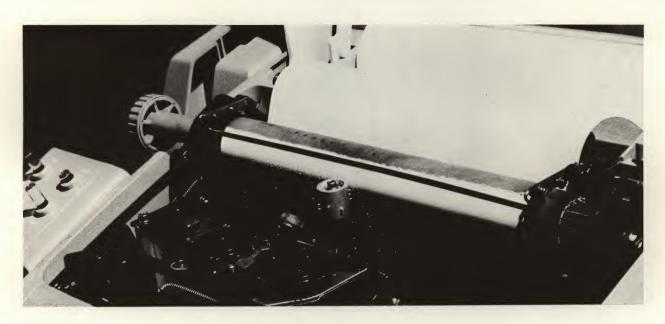
### OPERATION

When used as a time-sharing terminal, the modified teletypewriter in a Braille-8 system provides much the same function for a sightless user as a standard teletypewriter performs for a sighted person. The user types instructions and data on the teletypewriter keyboard. This information and all printout from the computer system is embossed on paper and is immediately available for reading, one line at a time.

Three print cycles are required for creating each Braille character; the PDP-8/F accomplishes the necessary speed conversion. Each ASCII character is translated into a corresponding Braille symbol. A standard Braille character set is provided; however, changes can be easily implemented to accommodate special user preferences.

When the PDP-8/F is used as a stand-alone system, a software subroutine replaces the standard Teletype output subroutine.

Modifications to the teletypewriter are simple and consist of replacing the standard head with one having seven different pin combinations located in columns around the circumference of the head. An eighth column has no pins. The head rotates to the desired position and embosses by striking the paper with the pins. The platen's resiliency is increased by encasing it in rubber tubing. All changes to the teletypewriter are reversible allowing the teletypewriter to be quickly converted back to the standard configuration.



Braille Head and Modified Platen