

### PRODUCT BRIEF

#### FEATURES

- 96-character ASCII alphanumeric display terminals
- 12" tilt-and-swivel, 1920-character display
- Detached, movable typewriter keyboard with one or more supplementary keypads
- Industry-compatible asynchronous communications interface
- Optional EIA auxiliary printer interface
- User-selectable brightness, blink/reverse video and underscore
- 7 x 11 dot matrix character cell
- Direct cursor positioning and sensing
- 20mA and EIA (RS-232-C) communications interface
- Selectable receive/transmit speed up to 19.2K bps
- American, British, Danish/Norwegian, French, German, Spanish and Swedish/Finnish fonts and keyboards
- Data General software support for interactive operation on ECLIPSE<sup>®</sup>, NOVA<sup>®</sup>, microNOVA<sup>™</sup> and Commercial Systems computers



#### DESCRIPTION

The DASHER<sup>™</sup> D100 and D200 displays are operator-oriented, 96-character ASCII, alphanumeric terminals designed and manufactured by Data General Corporation. Each terminal consists of a detached, movable, typewriter-style keyboard, 12-inch video display that tilts and swivels, and an industry-compatible asynchronous communications interface. The interface provides selectable speeds up to 19,200 bits per

second, which can optionally be set independently for receive and transmit data rates. The terminal can be connected to a central computer using the current loop interface with cables up to 2000 feet (457 m) in length. The standard EIA (RS-232-C) interface can be used for remote applications via data sets (modems).

#### APPLICATIONS

The DASHER D100 and D200 displays are high-throughput ASCII terminals ideal for a variety of applications requiring high-speed, interactive communications with a host processor. The detached typewriter-style keyboard with supplementary keypad(s) provides an effective operator interface for

interactive data entry applications. The display tilts and swivels to accommodate available furniture and lighting conditions, which increases operator comfort. And the high-speed asynchronous communications interface provides fast response to data base inquiry applications.

#### SCREEN MANAGEMENT

The DASHER D100 and D200 displays incorporate many operator features for cursor manipulation. Standard keys move the cursor up, down, left and right as well as to its home position. When the cursor reaches the end of the 24th line, the screen rolls up one line to make space for more characters. If rolling is disabled by a command sent to the display by the computer, the cursor moves to the top left-hand corner of the screen.

For information highlighting and forms design, several user-defined character attributes can differentiate portions of the displayed text. Character attributes such as reduced intensity, underscore and blink can be selected in any combination from the keyboard while the host controls reverse video characters. The block fill cursor can be directly and indirectly addressed via the keyboard or from the host computer for easy implementation of screen-oriented applications.

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## MONITOR SUBSYSTEM

The terminal presents upper- and lower-case alphanumeric characters formed by a 7 x 11 dot matrix. The 12-inch (30.5 cm) diagonal recessed screen minimizes glare and reflections. The display is a raster scan, non-interlaced design that displays a

maximum of 1920 characters arranged as twenty-four 80-character lines. The full 96 ASCII character set, or its international equivalent, can be displayed.

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## RELIABILITY

Data General's DASHER D100 and D200 displays use extensively tested components and designs. The keyboards are solid-state and capacitively-switched, requiring no mechanical linkage. Single printed circuit board design provides high

reliability. This board is mounted between air vents located at the top and bottom of the display enclosure. Air passing between these vents provide all necessary cooling without electric fans.

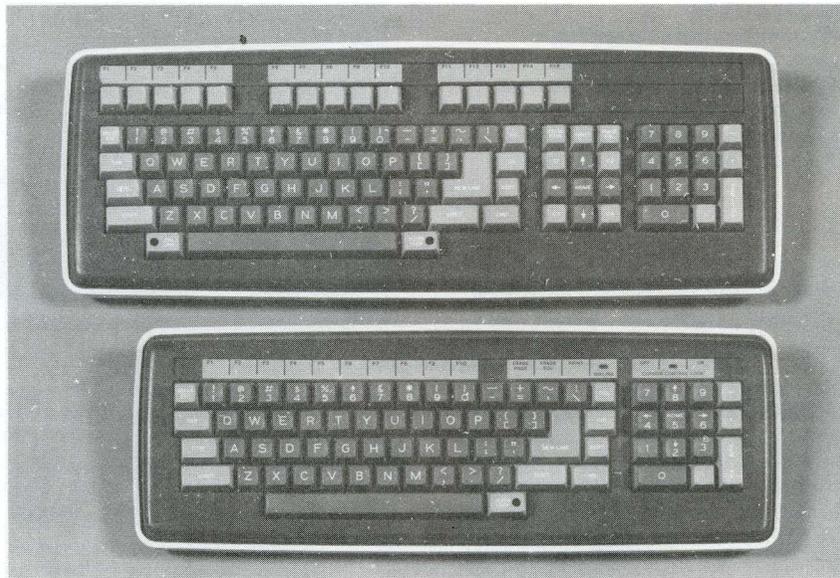
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## KEYBOARD SUBSYSTEMS

The DASHER D100 and D200 display keyboards are detachable and movable for maximum operator comfort. Their typewriter-style keyboards reduce the need for special operator training. The DASHER D100 keyboard contains a main keypad and 14-key combined cursor and numeric keypad. This keyboard can transmit 96 upper- and lower-case graphic symbols of the ASCII character set, 30 control characters and 35 special user function sequences. The DASHER D200 keyboard contains a typewriter-style main keypad, a 12-key screen management

keypad, a 14-key numeric keypad, and a 15-key user function keypad. This keyboard can transmit the 96 upper- and lower-case graphic symbols of the ASCII character set, 30 control characters and 75 special user function sequences.

In addition to the manual repeat key, both keyboards offer a "typematic" repeat feature on all code-generating keys. With this feature, any code-generating key that's held down for more than one second will generate code repeatedly until the key is released.



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## PRINTER INTERFACE

The DASHER D100 and D200 displays can be ordered with an optional auxiliary EIA port that can interface a slave printer. Available transmission speeds ranging from 110 to 4800 bits per second can be selected by switches mounted on a recessed panel to the rear of the display housing. Data General's DASHER TP1 and TP2 printers are compatible with this inter-

face. A secondary use of this option allows independent selection of the transmit and receive rates. When the option is selected and the terminal is used in this mode, information can be received at rates ranging from 50 to 19,200 bits per second and transmitted at rates ranging from 110 to 4800 bits per second.

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## INTERNATIONAL LANGUAGES

All DASHER D100 and D200 displays can be ordered with a wide choice of international character sets and keyboards. Language support is available for France, Germany, Denmark (Norway), Spain, Sweden (Finland), and the United Kingdom in addition to the domestic ASCII character set. DASHER D100

and D200 displays configured with international character sets have keyboards similar to those found on standard office typewriters in these countries, eliminating operator retraining in most cases.

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## SOFTWARE

The DASHER D100 and D200 displays are supported on all Data General computer systems using standard software. The Advanced Operating System (AOS) is a powerful, intelligent multiprogramming operating system. The Real-time Disc Operating System (RDOS) is a modular, disc-resident, multi-tasking system that optionally supports memory management hardware and dual operations. The Disc Operating System (DOS) handles smaller system applications. As a data entry terminal, the D200 is supported by Data General's Interactive

data entry/access (Idea) system. Idea provides extensive development, maintenance and runtime features for screen-oriented, data and transaction-driven requirements. In addition, D200 displays in Data General computer systems are supported by Interactive COBOL and AZ-TEXT word processing software under AOS. The D100 and D200 terminals operate in Data General computer systems with Data General's high-level languages including FORTRAN IV and 5, RPG II, Extended BASIC, DG/L™, PL/I and ALGOL.

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## SPECIFICATIONS

### GENERAL

**Display:** Tabletop mounting. 12 inch diagonal screen; 24 lines by 80 characters/line in active area 8.5 inch by 5.5 inch.

**Characters:** 7 x 11 dot matrix characters.

**Character Fonts:** American, British, Danish/Norwegian, French, German, Spanish and Swedish/Finnish.

**Keyboard:** Independent tabletop mounting; n-key roll over; typematic and manual repeat; user definable function keys.

**Self Test:** Diagnostic routine checks terminal at power-up.

**Interface:** Asynchronous serial; full-duplex; EIA RS-232-C and 20mA current loop. Compatible with Bell 103, 113 and 212 type modems.

**Baud Rates:** 50, 75, 110, 134.5, 150, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200, 9600, and 19200 bits per second.

**Data Format:** ASCII; 7 data bits; even, odd, mark, or no parity; one stop bit (two stop bits at or below 110 baud).

**Printer/Split Baud Option:** Second interface for serial ASCII-based printer; EIA RS-232-C; 110, 300, 600, 1200, 1800, 2400, 3600, or 4800 baud; 7-data bits; even parity; one stop bit (two stop bits at or below 110 baud). Allows separate receive baud selection (50-19,200 baud). In split baud mode, one stop bit is selected for all terminal communications (including printer).

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### ELECTRICAL

**Requirements:** 100 volts AC, 50 Hz; 120 volts AC, 60 Hz; 220/240 volts AC, 50 Hz.

**Power Consumption:** 50 watts maximum (171 BTU per hour).

**Display Refresh Rate:** 60 frames/second (domestic); 50 frames/second (foreign).

**Display Scan:** Noninterlaced raster.

**Line Cord:** 1.8 meters (6 feet).

**Keyboard Cable:** 1.2 meters (3.95 feet).

**I/O Cable:** EIA interface—15.2 meters (50 feet) maximum. 20mA current loop interface at 9600 baud or below—609.6 meters (2000 feet) maximum. 20mA current loop interface at 19,200 baud—152.4 meters (500 feet) maximum. Standard length supplied—6.1 meters (20 feet).

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### MECHANICAL

**Display Dimensions:** Height: 33.2 cm (13.2 inches); width: 41.0 cm (16.1 inches); depth 44.9 cm (17.7 inches).

**D100 Keyboard Dimensions:** Height: 5.8 cm (2.3 inches); width: 45.2 cm (17.8 inches); depth: 16.2 cm (6.4 inches).

**D200 Keyboard Dimensions:** Height: 6.0 cm (2.4 inches); width: 51.8 cm 20.4 inches); depth: 19.0 cm (7.5 inches).

**Weight:** Display—10 Kg (22 lbs). D100 Keyboard—1.1 Kg (2.4 lbs). D200 Keyboard—1.6 Kg (3.5 lbs).

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### ENVIRONMENTAL

**Temperature Range:** 0°C to 45°C (32°F to 113°F) operating; -40°C to 40°C (-40°F to 104°F) storage.

**Humidity:** 10% to 90% noncondensing, operating; 10% to 90% noncondensing, storage.

**Altitude:** 3048 meters (10,000 feet).

**Radiation:** below 0.5 milliroentgens per hour (complies with Underwriters Laboratories Standard 478).

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### MODELS

6106 D100 Display Terminal

6107 D100 Display Terminal with split baud and printer interface option.

6108 D200 Display Terminal

6109 D200 Display Terminal with split baud and printer interface option.

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## SALES AND SERVICE

**NORTH AMERICAN OFFICES:** Westboro, Massachusetts, 01581, (617) 366-8911, headquarters. And AL: Birmingham; AR: Little Rock; AZ: Phoenix, Tucson; CA: Anaheim, El Segundo, Fresno, Los Angeles, Palo Alto, Pasadena, Sacramento, San Diego, San Francisco, Santa Ana, Santa Barbara, Van Nuys; CO: Denver, Englewood; CT: North Branford, Norwalk; FL: Ft. Lauderdale, Orlando, Tampa; GA: Norcross; IA: Bettendorf, Cedar Rapids; ID: Boise; IL: Arlington Heights, Chicago, Peoria; IN: Indianapolis; KY: Louisville; LA: Baton Rouge, Metairie; MA: Cambridge, Wellesley, West Springfield, Worcester; MD: Baltimore; ME: Portland; MI: Grand Rapids, Southfield; MN: Richfield; MO: Kansas City, St. Louis; MS: Jackson; MT: Billings; NC: Charlotte, Greensboro, Raleigh; NE: Omaha; NH: Nashua; NJ: Cherry Hill, Somerset, Wayne; NM: Albuquerque; NY: Buffalo, Latham, Liverpool, Melville, New York City, Rochester, White Plains; OH: Brooklyn Heights, Cincinnati, Columbus, Dayton; OK: Oklahoma City, Tulsa; OR: Portland; PA: Blue Bell, Carnegie, Lancaster, Philadelphia; RI: Providence; SC: Columbia, Greenfield; TN: Knoxville, Memphis, Nashville; TX: Austin, Dallas, El Paso, Ft. Worth, Houston, San Antonio; UT: Salt Lake City; VA: McLean, Norfolk, Richmond, Salem; WA: Bellvue, Richland, Spokane; WI: Madison, West Allis; WV: Charleston; CANADA: ALBERTA: Calgary, Edmonton; BRITISH COLUMBIA: Vancouver; MANITOBA: Winnipeg; ONTARIO: Ottawa, Toronto; QUEBEC: Montreal.

**INTERNATIONAL OFFICES:** ARGENTINA: Buenos Aires; AUSTRALIA: Adelaide, Brisbane, Melbourne, Newcastle, Perth, Sydney; AUSTRIA: Vienna; BELGIUM: Brussels; BOLIVIA: La Paz; BRAZIL: Sao Paulo; CHILE: Santiago; COSTA RICA: San Jose; DENMARK: Copenhagen; ECUADOR: Quito; EGYPT: Cairo; FINLAND: Espoo; FRANCE: Bordeaux, Lille, Lyon, Paris, Strasbourg; GERMANY: Dusseldorf, Frankfurt, Hamburg, Hanover, Munich, Nuremberg, Stuttgart; GUATEMALA: Guatemala City; HONG KONG; INDIA: Bombay; INDONESIA: Jakarta; IRAN: Tehran; IRELAND: Dublin; ISRAEL: Tel-Aviv; ITALY: Milano, Padua, Rome; JAPAN: Tokyo; KOREA: Seoul; KUWAIT: Safat; LEBANON: Beirut; MALAYSIA: Kuala Lumpur; MEXICO: Mexico City, Monterrey; NETHERLANDS: Amsterdam, Rijswijk; NEW ZEALAND: Auckland, Wellington; NICARAGUA: Managua; NIGERIA: Ibadan, Lagos; NORWAY: Oslo; PANAMA: Panama City; PARAGUAY: Asuncion; PERU: Lima; PHILIPPINES: Manila; PORTUGAL: Lisbon; PUERTO RICO: Hato Rey; SAUDI ARABIA: Riyadh; SINGAPORE; SOUTH AFRICA: Cape Town, Durban, Johannesburg, Pretoria; SPAIN: Barcelona, Bilbao, Madrid, San Sebastian, Valencia; SRI LANKA (CEYLON): Colombo; SWEDEN: Gothenburg, Malmo, Stockholm; SWITZERLAND: Lausanne, Zurich; TAIWAN: Taipei; THAILAND: Bangkok; TURKEY: Ankara; UNITED KINGDOM: Birmingham, Bristol, Hounslow, London, Manchester, South Harrow, Glasgow, Scotland; VENEZUELA: Maracaibo.

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The materials contained herein are summary in nature, subject to change, and intended for general information only. Details and specifications concerning the use and operation of Data General

equipment and software are available in the applicable technical manuals, available through local sales representatives.

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