



# 10 MB Removable Cartridge Disc System

## PRODUCT DESCRIPTION

The 10 Megabyte Removable Cartridge Disc System is a low-cost, random access bulk storage subsystem for Interdata's 16 and 32-bit computer systems. The basic subsystem provides a formatted storage capacity of over 10.02 million bytes with an expansion capability to over 40.10 million bytes with the addition of up to three removable cartridge disc drives.

Included with the basic subsystem is a 10 megabyte disc drive, fully formatted disc cartridge, power supply, cables, and controller capable of controlling four removable cartridge disc drives.

## FEATURES

- 10,027,008 Byte Formatted Capacity
- Expandable to 40.108 Million Bytes
- 33 Millisecond Average Seek Time
- 12.5 Millisecond Average Rotational Latency
- 312,500 Bytes Per Second Transfer Rate
- Hardware Write Protect

## OPERATIONAL CHARACTERISTICS

The 10 Megabyte Removable Cartridge Disc System uses an IBM-type 5440, two-recording-surface disc cartridge with a nominal formatted capacity of 5 megabytes. The additional 5 megabytes are recorded on a fixed two recording surface disc with both discs using a common spindle and head actuating mechanism. The exceptionally fast and accurate head positioning mechanism allows radial positioning of the four heads to any one of the 408 available cylinders. The average positioning time is 33 milliseconds, track to track 10 milliseconds and a maximum full stroke 60 milliseconds.

The rotation speed is a highly accurate 2400 RPM using a DC brushless motor that is impervious to line power variations. Data transfers at a rate of 312,500 bytes per second using a standard Interdata selector channel for autonomous direct memory access. Data security and integrity are assured by the use of extensive error detection logic in the controller, a constant revolution DC powered spindle, disc cleaning brush assembly to minimize particle contamination, head positioning limiter and power loss protect circuits causing the heads to be fully retracted, and a positive cartridge interlock mechanism preventing removal of the cartridge until fully stopped.

The controller is a standard Interdata 15-inch by 15-inch printed circuit board that may be inserted into any standard Interdata chassis. The disc drive unit is mountable in a standard Interdata cabinet or RETMA rack.

The 10 Megabyte Removable Cartridge Disc subsystem is fully supported by Interdata's powerful OS/16MT2 and OS/32MT operating systems. In addition, the disc subsystem is supported by higher level languages such as FORTRAN, COBOL, and BASIC II.

### INTERDATA PRODUCT NUMBERS

- M46-617** 10,000,000 Byte Removable Cartridge Disc System. Disc drive features one 5MB removable and one 5MB fixed disc. Disc transfer rate is 312,500 bytes per second, average access time is 33 milliseconds. System includes disc drive controller for up to four drives, 10,000,000 byte disc drive, fully formatted disc cartridge, power supply, cable and mounting hardware. 60 Hz.
- M46-618** Same as M46-617. 50 Hz.
- M46-619** 10,000,000 Byte Removable Cartridge Expansion Disc. Includes disc drive, fully formatted disc cartridge, cable and mounting hardware. 60 Hz.
- M46-620** Same as M46-619. 50 Hz.

### SPECIFICATIONS

#### Capacity

Bit Density	2200 bits per inch
Track Density	200 tracks per inch
Cylinder	408
Tracks Per Cylinder	4
Bytes Per Sector	256
Sectors Per Track	24
Formatted	10,027,008 bytes

#### Access Times

Average Access Time	33 milliseconds
Average Rotational Delay	12.5 milliseconds

#### Rotational Speed

2400 RPM

#### Data Transfer

312,500 bytes per second

#### Disc Cartridge

IBM 5440 type

#### Dimensions

Height	7.75 inches (19.7 cm)
Width	17.6 inches (44.7 cm)
Depth	22 inches (55.9 cm)
Controller	15 x 15 inch (38.1 x 38.1 cm) printed circuit board
Weight	95 pounds (43 kg)

#### Power

Disc Drive	120 VAC, 3.3 amperes, 47-63 Hz single phase, starting current 12 amperes.
	230 VAC, 1.65 amperes, 47-63 Hz single phase, starting current 6 amperes.
Controller	+5 VDC, 4.5 amperes

#### Environmental

Temperature	50° to 100°F operating
Humidity	10 to 80% RH no condensation

The information contained herein is intended to be a general description and is subject to change with product enhancement.