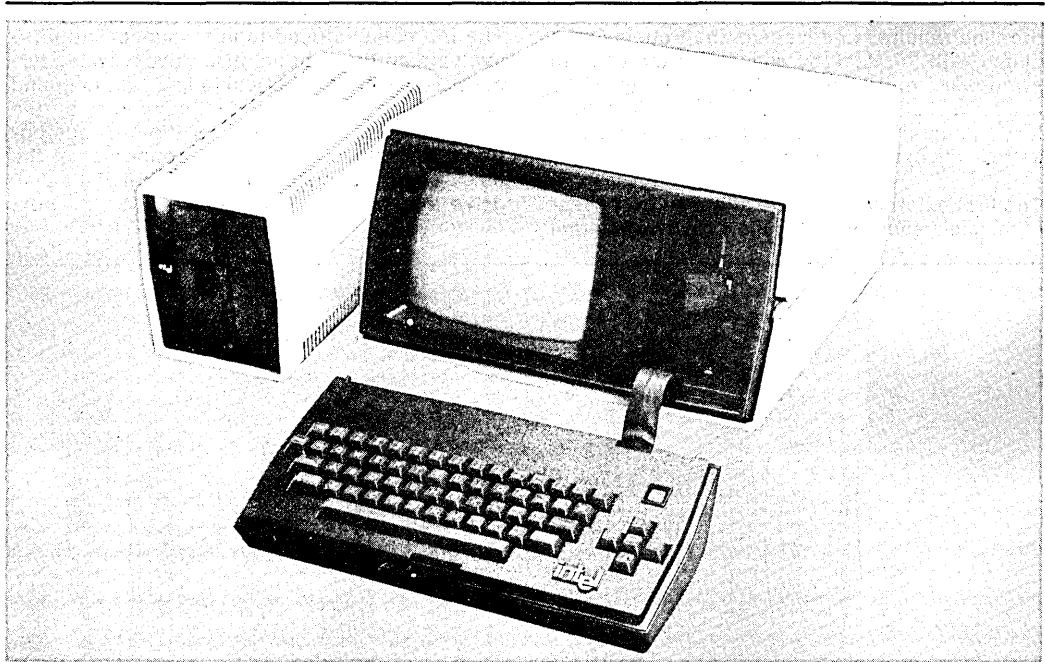




THE iPDS™-130 OPTIONAL FLEXIBLE EXTERNAL DISK DRIVE FOR THE iPDS™ PERSONAL DEVELOPMENT SYSTEM

- Each disk drive provides 640K bytes of formatted mass storage.
- Disk drives use industry-standard 5-¼ inch flexible diskettes as the storage medium.
- Daisy-chaining up to 3 disk drives provides a total of 2.56M bytes storage capacity.
- Disk drive has transfer rate of 4 microsec/bit, a recording density of 5922 bpi, and dual heads.
- Each disk drive has its own power supply.
- Use of external disk drive eliminates disk swapping when making duplicate disks.

When using the iPDS™ personal development system, applications may be developed that require more storage capacity than is provided by the integral disk drive of the system. The iPDS-130 optional external flexible disk drive provides the needed additional mass storage. Up to three disk drives may be added to the iPDS system, with each additional disk drive providing 640K bytes of (formatted) capacity. This means that a maximum disk storage of 2.56M bytes is available. The photograph below shows the iPDS-130 external disk drive with the iPDS system. Figure 1 shows some features of the iPDS-130 disk drive.



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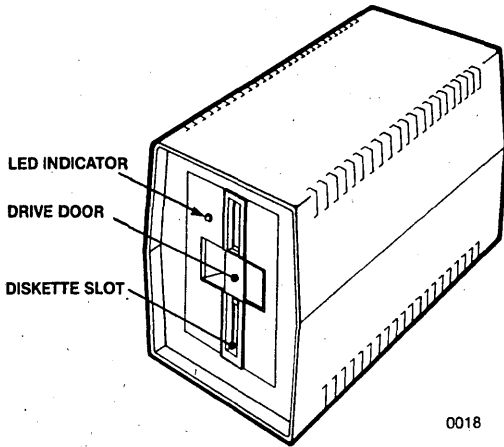


Figure 1. IPDS™-130 Flexible Disk Drive

Creating back-up diskettes is good programming practice and the IPDS-130 disk drive provides the means to create these back-ups. It shortens the time required and lessens the trouble associated with this task by eliminating the need to swap disks during the duplication process. The master diskette can be inserted in the iPDS system's integral disk drive and the duplicate diskette in the external disk drive.

The first external disk drive attaches to the rear of the main enclosure, and the other two external

drives are connected to the rear of the previous external drive. Each additional drive has its own power supply and is mounted in its own housing. Figure 2 shows the iPDS unit with all three external drives.

HARDWARE

Each drive is 7.3 in. high and weighs approximately 11 lbs. The front of each disk drive contains a door, a door release mechanism, and a drive indicator that is lit during disk I/O operations. The drive is mounted in the vertical position. Different ac voltage ranges may be selected. The rear panel of the drive contains the ac power connector, the power ON/OFF switch, a fuse holder, a voltage selector card, and two I/O cable connectors. Figure 3 shows the disk drive's rear panel.

I/O Cable

The I/O cable is used to interconnect the iPDS system and the external disk drives. The external portion of the input cable is 30 in. long and connects to the flexible disk connector on the rear of either the iPDS unit or the previous optional disk drive. The output connector of the daisy-chain mounts on the rear panel of the disk drive and provides the connector to the next disk drive.

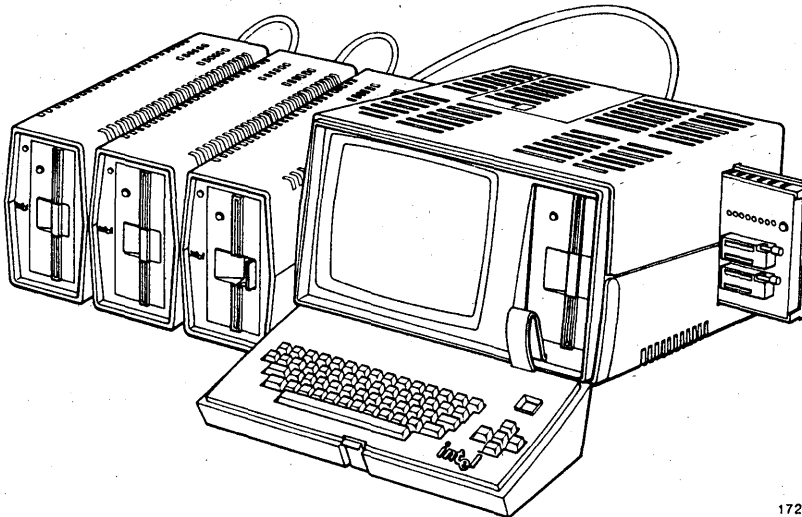


Figure 2. IPDS™ System with External Flexible Disk Drives

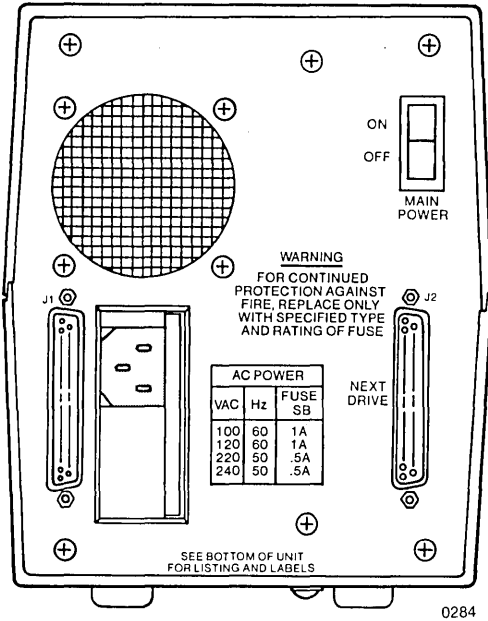


Figure 3. iPDS™-130 Optional Flexible External Disk Drive Rear Panel

Power Supply

The flexible disk drive unit contains a linear power supply with a maximum power input of 40 watts. The output consists of two regulated dc voltages (5v and 12v).

I/O SPECIFICATIONS

Floppy Disk Interface

The floppy disk interface controls up to four 5-¼ in. double-sided 96 tpi floppy disk drives.

The floppy disk is a 5-¼ in., 96 tpi, dual-headed unit. With a total of 80 tracks of sixteen 256-byte sectors per side, the formatted capacity of the unit is 640K bytes. The interface is the industry standard for 5-¼ in. drives.

OPTIONAL FLEXIBLE EXTERNAL DISK DRIVE SPECIFICATIONS

The specifications for the optional flexible external disk drive are given in Tables 1 through 4.

Table 1. Environmental Characteristics

Temperature	
Operating	10°C to 35°C
Non-operating	-40°C to 62°C
Humidity	
Operating	20% to 80%
Non-operating	5% to 95%
Non-condensing	5% to 95%
Condensing	Up to 60 watts are dissipated by fan cooling
Cooling	

Table 2. Physical Characteristics

Width	6.1 in (155.4mm)
Height	7.3 in (174.2mm)
Depth	13.8 in (350.6mm)
Weight	11.0 lbs. (5.0kg)

Table 3. Electrical Characteristics

Input power	90 VAC to 132 VAC, 47 Hz to 63 Hz; or 198 VAC to 264 VAC, 47Hz to 63Hz
Drive power	12 VDC ± 1%
Logic power	5 VDC ± 1%
Adjustable range	± 5%, drive and logic
Power dissipation	25 watts average, 34 watts maximum

Table 4. Functional Specifications

Transfer rate	4 µsec/bit
Rotational speed	300 rpm ± 1.5%
Track density	96 tpi
Number of cylinders	80
Number of sides	2
Recording density	5922 bpi
Encoding method	MFM
Unformatted capacity	6.25K bytes/track
Formatted capacity	640K bytes
Motor start time	0.4 sec maximum
Track-to-track step rate	6 msec maximum
Side-to-side delay time	0.2 msec maximum
Head loading time	35 msec maximum
Head setting time	15 msec maximum
Medium	Industry standard 5-¼ in. with single hole

ORDERING INFORMATION

Part Number	Description
iPDS-130	Optional external flexible disk drive