

DISK DRIVES NP20 **DATA MODULE NP21**



Nippon Peripherals Limited

Need Data Module Disk Drives?



The Product

Both the Model NP20 Disk Drives and Model NP 21 Data Module are highly sophisticated random access memory units developed with technology far surpassing that which went into the manufacture of earlier disk units. In place of conventional disk pack recording mediums, these units feature a newly developed closed data module which accommodates the disk, head, carriage, spindle, etc., thus vastly improving operational reliability.

Features

High speed access

High speed random access averaging 20mS.

IBM compatible

NP20 Drive is plug-compatible with IBM 3340; NP21 Data Module is compatible with IBM 3348.

Flexibility

Three kinds of Data Modules are available; select the one best suited to the scale and type of work you want to do.

Cost Performance

New high quality mass production results in minimum cost; cost performance ratio is optimum.

Redundant diagnostic functions

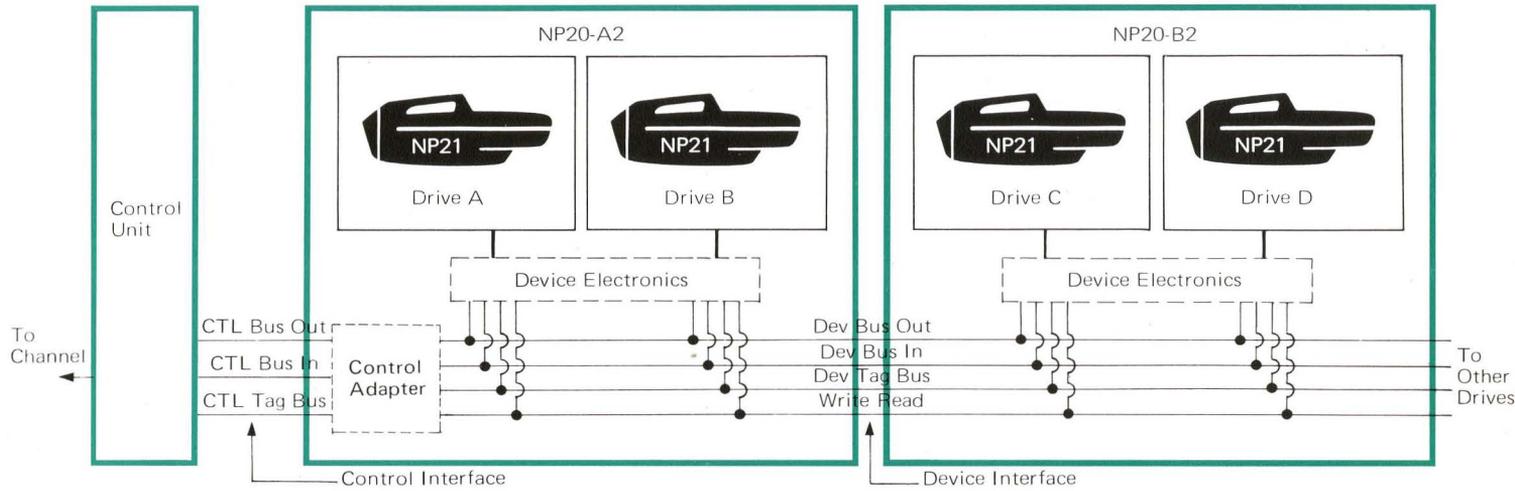
Any problem which might occur in the unit can be quickly and easily diagnosed by inserting a diagnostic microprogram in the controller. This can significantly reduce troubleshooting time.

Disk Drives

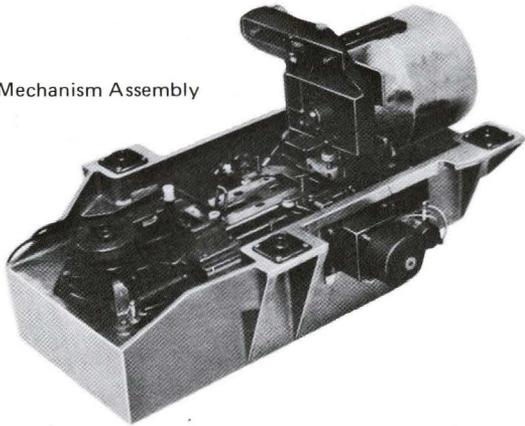
Type		NP20-A2	NP20-B2	NP20-B1
Positioning Time (mS)	Min.		7	
	Ave.		20	
	Max.		45	
Average Latency Time (mS)			10.1	
Data Transfer Rate (Bytes/s)			885,000	
Data Module		NP21, IBM 3348 or equivalent		
Number of Drives		2	2	1
Features	Control Adapter	Yes	No	No
	RPS	Option	Option	Option
	Fixed Head Feature	Option	Option	No
Physical Dimensions (W x H x D) mm (inch)		1,070 * x 1,100 x 850 (42.1 * x 33.5 x 43.3)		
Weight kg (lb)		460 (1,000)	430 (940)	360 (790)
Power Requirements		200, 220, 235 V 50Hz 3 ϕ /200, 208, 230 V 60Hz 3 ϕ		
Power Consumption KVA		2.2	2.0	1.6
Heat Dissipation Kcal/H(BTU/H)		1,650 (6,600)	1,500 (6,000)	1,200 (4,800)
Operating Environment		Temperature 16~32°C (60~90°F) Humidity 20~80% RH		

* Each end unit dimension is 1,130 (44.5 inch) with a 30mm cover added. Unless specially requested, A2 will include covers; others will not.

They're finally here!



Drive Mechanism Assembly

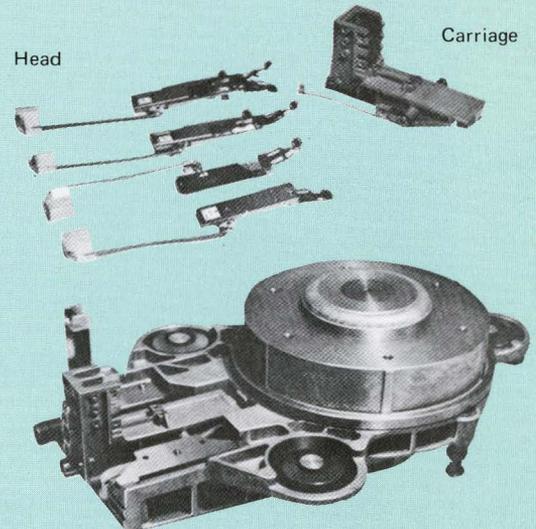


Voice Coil Motor



Data Module

Type	NP21-35	NP21-70	NP21-70F
Data Surfaces per Module	3	6	6
Servo Surface per Module	1	1	1
Cylinders per Module	398	696	696
Byte Capacity per Track	8368	8368	8368
Tracks per Cylinder	12	12	12
Byte Capacity	Movable Head	34,944,768	69,889,536
	Fixed Head	0	0
	Total	34,944,768	69,889,536
Weight kg (lb)	7.7 (17)	8.6 (19)	9.1 (20)



Data Module Mechanism Assembly

Specifications are subject to change without notice.

Nippon Peripherals Limited was established in September, 1973 with the aim of carrying out the development, manufacture and sale of peripheral and terminal equipment for computers. The corporation represents joint investment and technical tie-ups between FUJITSU LIMITED and HITACHI, LTD., Japan's two foremost computer manufacturers.

Nippon Peripherals' Data Module Disk Drives are the result of the combined resources and decades of experience of the two participating firms in the new corporation.



Nippon Peripherals Limited

660 Miyamae, Fujisawa-shi,
Kanagawa-ken 251, Japan
Phone (0466) 26-8211 Telex 3862-493

For further information, please contact: