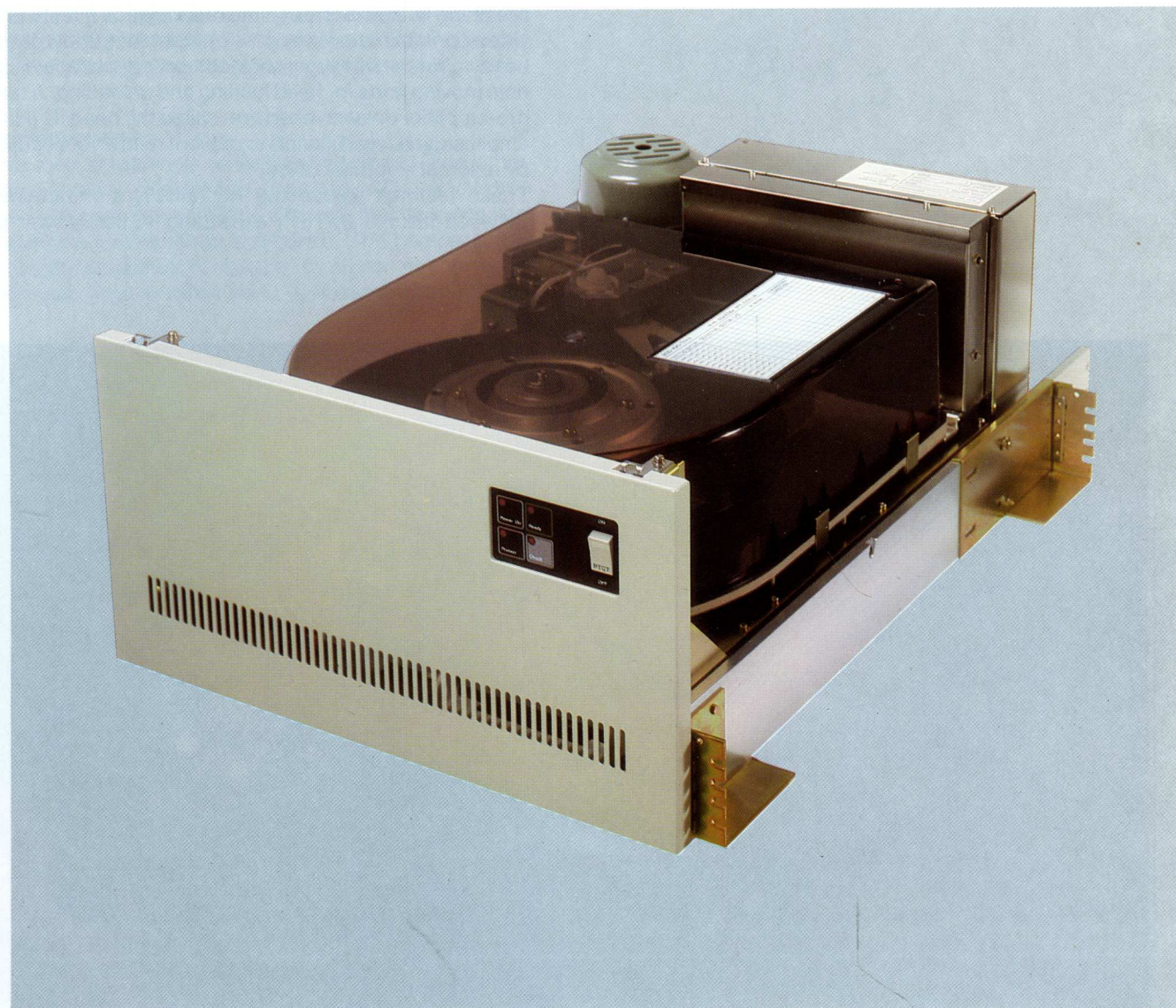


OEM FIXED DISK DRIVES

M2294K/N

14-inch Winchester-type fixed disk drive with 335.5 megabyte capacity, and 27 millisecond average positioning time



M2294K/N

FUJITSU

OEM FIXED DISK DRIVES

The M2294 is a 14-inch Winchester-type fixed disk drive offering large storage capacity, high performance and enhanced reliability. The M2294 model is available in two types—K and N. The K-type is provided with 100/115 VAC power supply, while the N-type is equipped with 220/240 VAC power supply.

Each M2294 model consists mainly of a disk enclosure, spindle drive motor and five printed circuit boards. The disk enclosure integrates five disks, Winchester-type contact start/stop heads, rotary actuator, spindle and IC read preamplifiers.

Very large storage capacity

The M2294K and M2294N each have 1024 cylinders with 20,480 byte unformatted track capacity, and their servo-controlled track-following system assures accurate head positioning on extremely high-density tracks of 850 tracks per inch, thus realizing an enhanced storage capacity—335.5 megabytes on 5 disks.

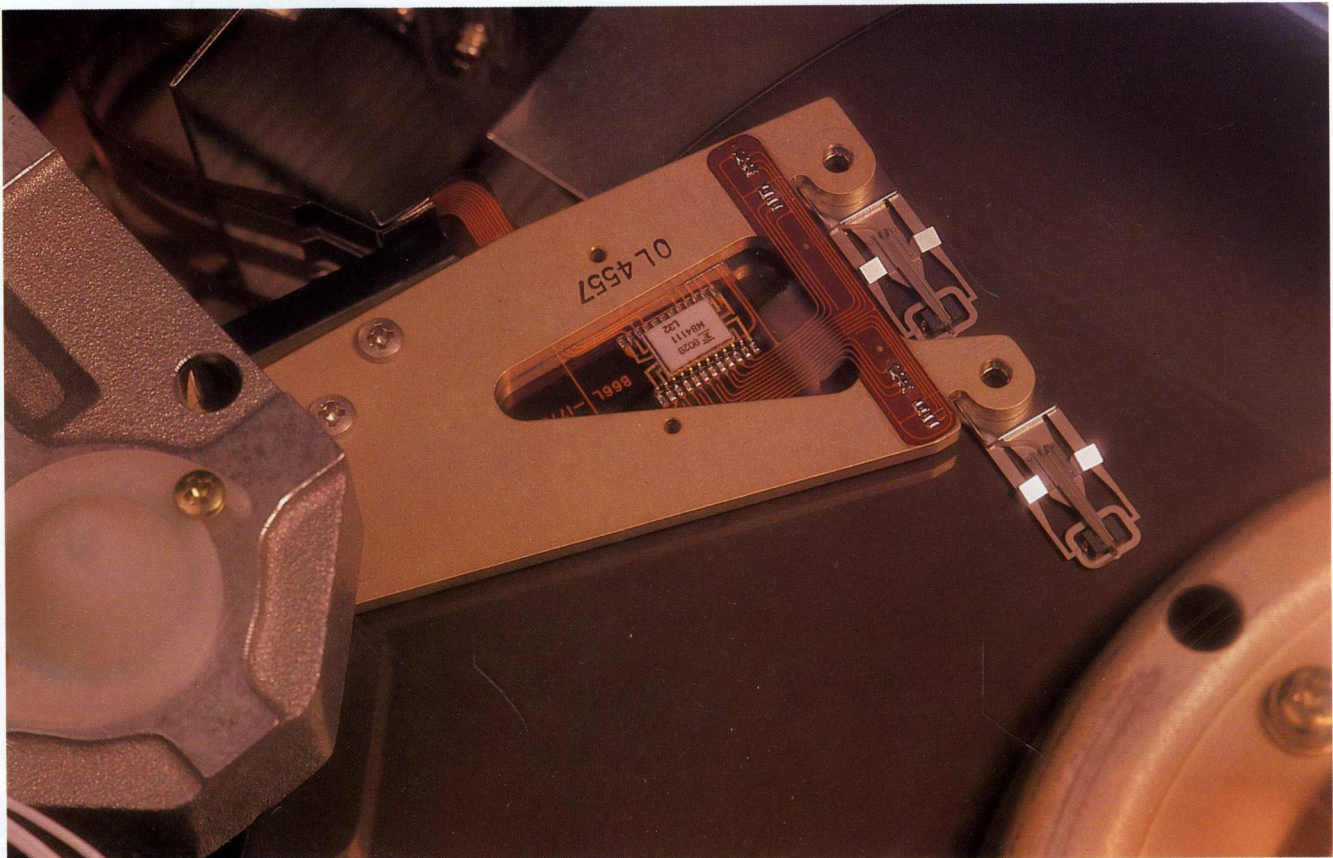
High performance

With the adoption of a high-speed rotary actuator, the M2294K/N achieves fast head positioning—6 milliseconds for track-to-track, 27 milliseconds average and 55 milliseconds maximum—and a high transfer rate of 1,012 kilobytes per second.

High reliability

The completely sealed disk enclosure incorporates a breathing filter and an absolute recirculation filter to provide a contamination-free environment for the low-flying heads. Winchester-type contact start/stop heads eliminate moving parts for head loading and unloading. A read pre-amplifier on each head arm called the head IC (HIC) amplifies small read signals to prevent read errors caused by external electrical noise.

These features assure the M2294K/N a mean-time-between-failures (MTBF) exceeding 10,000 power-on hours.



Enlarged photo of head IC (HIC)

Compact, economical

Despite their large capacities, M2294K/N disk drives can be mounted in a 19-inch rack in 6 pitches, thus saving installation space. Each model can also be mounted vertically in a system cabinet. Thanks to the rotary actuator, the M2294 power consumption as well as heat dissipation are greatly reduced.

Dual-port option

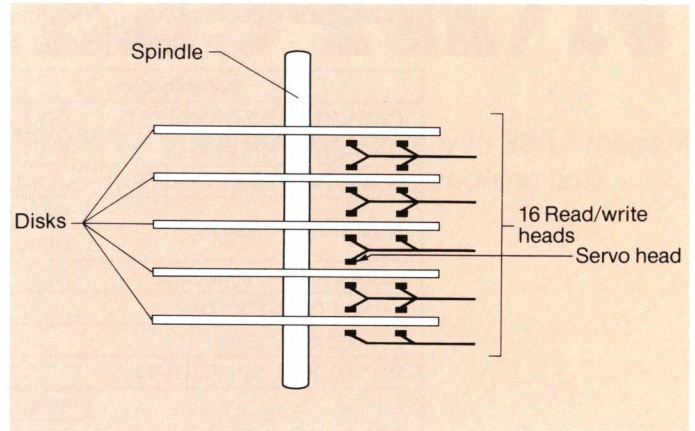
Each M2294 model can be connected with two controllers when a dual-port option is provided. This option is available as a separate printed circuit board which is mounted on the PCB chassis.

Compatibility

The M2294K/N has an industry standard Storage Module Device (SMD) interface. This means that the models can be added to or replace existing disk drives of the lower capacity M228X models for increased storage capacity, thereby allowing smooth upgrading in disk configuration.

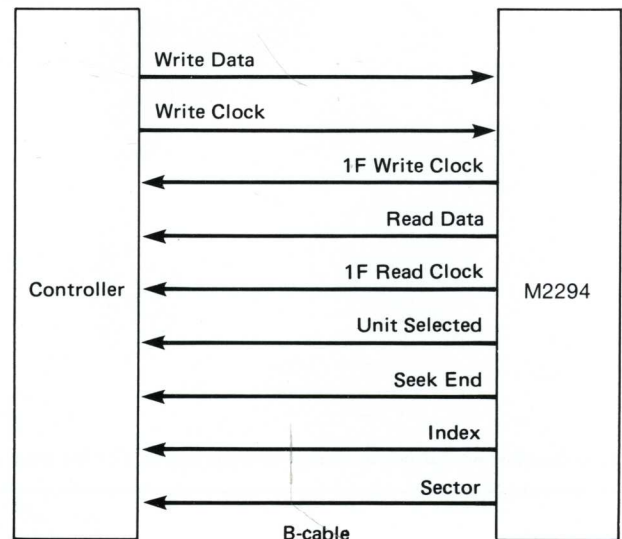
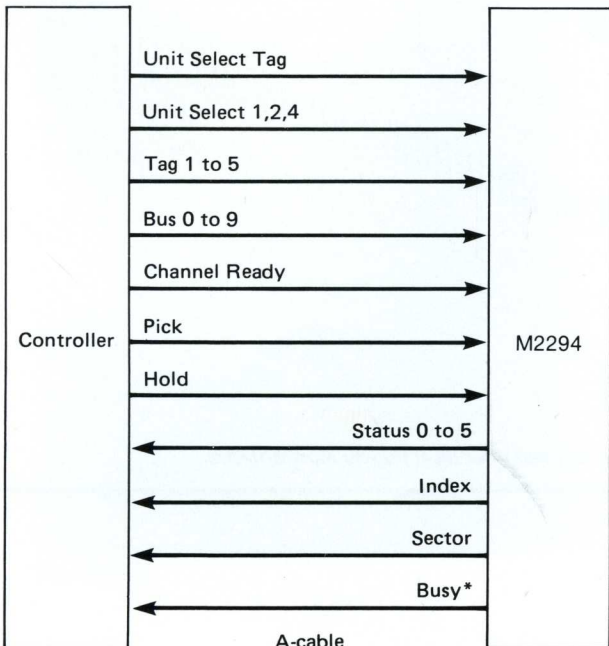
Maintenance-free

With their completely sealed disk enclosure and other highly reliable printed circuit boards, M2294K/N disk drives require substantially reduced maintenance: no preventive maintenance is required. The compact disk enclosure can be easily replaced by customer engineers, and mean-time-to-repair (MTTR) is less than one hour.



M2294K/N disk head structure

SMD interface



*Busy signal is used with the dual-port option.

OEM FIXED DISK DRIVES

M2294 K/N Specification (preliminary)

Specifications		M2294K/N
CAPACITY (UNFORMATTED)	(BYTE)	335,544,000
CAPACITY/TRACK	(BYTE)	20,480
NUMBER OF DISK		5
NUMBER OF HEADS	DATA HEAD	16
	SERVO HEAD	1
NUMBER OF CYLINDERS		1024 (INCLUDING SPARES)
TRACK DENSITY (TPI)		850
BIT DENSITY (BPI)		6500
ROTATIONAL SPEED (RPM)		2964
POSITIONING TIME (ms)	MIN.	6
	AVE.	27
	MAX.	55
RECORDING METHOD		MFM
TRANSFER RATE MB/S		1.012
DIMENSIONS & WEIGHT	HEIGHT	250 mm (9.84")
	WIDTH	416 mm (16.38")
	DEPTH	650 mm (25.59")
	WEIGHT	45 Kg
POWER SUPPLY (OPTION)	M2294 K	100V, 50/60 HZ, 120V/115V 60HZ
	M2294 N	220V/240V 50 HZ
AMBIENT TEMPERATURE	OPERATING	5 to 40°C (41 to 104°F)
	NON-OPERATING	-40 to 60°C (-40 to 140°F)
	GRADIENT	LESS THAN 15°C (27°F)/H
MTBF		10,000 POWER-ON-HOURS
INTERFACE		SMD STANDARD
SECTORS		FIXED/VARIABLE

Specifications are subject to change without notice. For the latest information, contact your local Fujitsu representative.

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