

# MBA3300NC, MBA3300NP, MBA3147NC, MBA3147NP, MBA3073NC, MBA3073NP HARD DISK DRIVES INSTALLATION GUIDE



## CARE OF YOUR FUJITSU HARD DISK DRIVE (HDD)

Careful handling and installation of your HDD is paramount to the longevity of the unit. The internal mechanism of the HDD can be seriously damaged if the HDD is subjected to forces outside the environmental specifications. When transporting the HDD, always use the original packaging in which the HDD was delivered to you, and avoid exposing the HDD to extreme changes in temperature to minimize the risk of condensation.

### Handling

1. **Never** drop the unit. Handle it with care.
2. **Never** move the HDD while the disks are spinning. Note that the disks spin when the HDD is powered on and also immediately after power off. Refer to the Start/Stop specification for your HDD.
3. **Always** turn off the power before connecting or disconnecting the interface cable. The same applies to changing any of the switches or terminal settings except Write protect switch on NP model drives.
4. **Never** place the HDD in the vicinity of equipment giving off strong magnetic fields, such as CRT monitors, televisions, or loudspeakers.
5. **Never** use any cleaning agents or liquids on the HDD.
6. **Always** use an antistatic mat and wrist strap when handling the HDD. Hold the HDD by the base casting and never touch the components on printed circuit board assembly.
7. **Never** remove any labels from the HDD or deface them in any way.
8. **Never** open the HDD for any reason. Doing so will void any warranties.
9. **Always** pay close attention to the mounting specifications such as those for sway space and cooling. If the temperature difference between the storage location and installation locations exceeds 10°C, for temperature acclimation purposes, leave the HDD in the new location for at least two hours before turning it on. This minimizes any risk of condensation forming on the HDD.

The HDD needs **NO** preventative or periodic maintenance during its service life if properly used in the appropriate environment.

### INSTALLATION

1. **ORIENTATION**—The HDD can be installed flat on any of its six sides. Inclination from vertical or horizontal plane should not exceed 5°.
2. **MOUNTING SCREW INSTALLATION**—When the mounting screw holes on the side of the HDD are used, be sure to use the two pairs of outer holes. Do not use the center hole in conjunction with only one of the outer holes. The screws must not penetrate the HDD by more than 5.0 millimeters. Impact caused by the electric screwdriver must be within the HDD specifications.
3. **COOLING**—Allow space above and below the HDD to provide an adequate air flow. Fan cooling is recommended. The HDD temperature measured at center of top cover (label side) should never exceed 60°C. See Table 1.

Table 1. Reference value of airflow

Environmental temperature	Required velocity of airflow
30°C	> 0.3m/s
35°C	> 0.6 m/s
40°C	> 0.9 m/s
45°C	> 1.5 m/s

4. **TERMINATION**—A terminator should be installed externally at both ends of the SCSI bus.
5. **TERMINATOR POWER**—Terminator power must be supplied to terminator for correct operation. This can be supplied from either the HDD, except for NC model or the SCSI bus. If only NC models are connected to the SCCI bus, terminator power should be supplied externally.
6. **CONNECTING**—To avoid potential damage to the HDD, make sure that connector type and orientation is correct.

**CAUTION:** Your warranty may be voided if the connector is damaged as a result of incorrect insertion.

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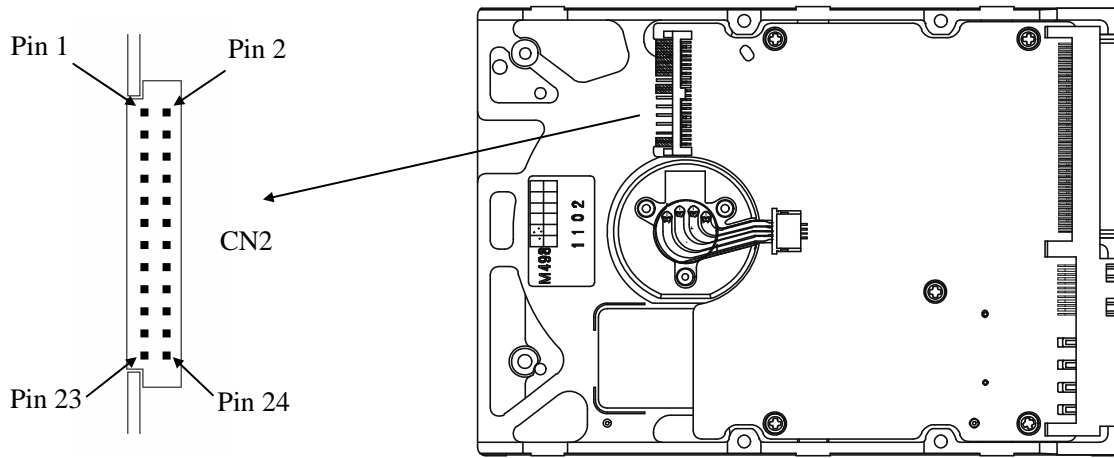
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**Diagram and user-selectable options (on NP models only)**

Below is a diagram of the main board of SCSI HDD and also a summary of the user-selectable options including guidelines for installation of the HDD.

**This setting applies only for NP models.**



**Figure 1. Option select terminal**

**Table 2. CN2 Terminal Setting (on NP models only)**

Pin #	Setting Item	Function
1-2	SCSI ID 0	See Table 3.
3-4	SCSI ID 1	
5-6	SCSI ID 2	
7-8	SCSI ID 3	
9-10	Write protect	Open .....Write operation is enabled. (default)
		Short .....Write operation is disabled.
11-12	Motor start mode	Open .....Starting of motor is controlled with START/STOP UNIT command. (default)
		Short .....Motor is started immediately after power supply is turned on or microcode is downloaded.
13-14	Force Narrow	Open .....16-bit bus mode (default)
		Short .....Pull upper 8bits and parity internally when HDD is connected to Narrow SCSI bus.
15-16	Force Single Ended	Open .....Follows DIFFSNS signal level on SCSI bus. (default)
		Short .....Single-Ended mode
17	GND	
18, 19	N.C	
20	IDD Reset	Input signal
21-22	Remote LED	Output signal
23-24	Terminal power supply	Open .....HDD does not supply terminator power to SCSI bus.
		Short .....HDD supplies terminator power to SCSI bus. (default)

**Table 3. SCSI ID Setting on CN2 (on NP models only)**

Pin 1-2	Pin 3-4	Pin 5-6	Pin 7-8	ID	Pin 1-2	Pin 3-4	Pin 5-6	Pin 7-8	ID
Open	Open	Open	Open	0	Open	Open	Open	Short	8
Short	Open	Open	Open	1	Short	Open	Open	Short	9
Open	Short	Open	Open	2	Open	Short	Open	Short	10
Short	Short	Open	Open	3	Short	Short	Open	Short	11
Open	Open	Short	Open	4	Open	Open	Short	Short	12
Short	Open	Short	Open	5	Short	Open	Short	Short	13
Open	Short	Short	Open	6	Open	Short	Short	Short	14
Short	Short	Short	Open	7	Short	Short	Short	Short	15 (default)