

MA Series, MB Series Jumper Setting

1. Object Model

MAP3147NC	MAS3184NC	MAT3073NC	MAU3036NC
MAP3147NP	MAS3184NP	MAT3073NP	MAU3036NP
MAP3367NC	MAS3367NC	MAT3147NC	MAU3073NC
MAP3367NP	MAS3367NP	MAT3147NP	MAU3073NP
MAP3735NC	MAS3735NC	MAT3300NC	MAU3147NC
MAP3735NP	MAS3735NP	MAT3300NP	MAU3147NP

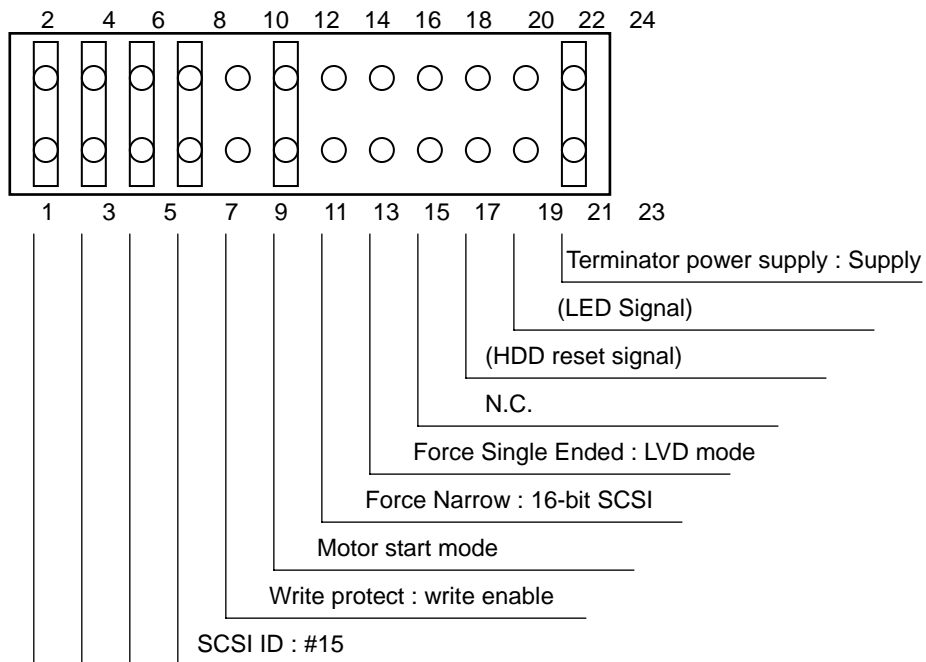
MAW3073NC	MAX3036NC	MBA3073NC
MAW3073NP	MAX3036NP	MBA3073NP
MAW3147NC	MAX3073NC	MBA3147NC
MAW3147NP	MAX3073NP	MBA3147NP
MAW3300NC	MAX3147NC	MBA3300NC
MAW3300NP	MAX3147NP	MBA3300NP

2.1 Setting Terminals (NP model)

The user must set the following terminals and SCSI terminating resistor before installing the HDD in the system.

Setting terminal: CN2

Figures 1 : setting terminal (CN2)



2.2 CAUTION (NP model):

1. The user must not change the setting of terminals not described in this section. Do not change setting status set at factory shipment.
2. Do not change the setting of terminals except following setting pins during the power is turned on. - Write protect: CN2 9-10
3. To short the setting terminal, use the short plug attached when the device is shipped from the factory.

2.3 SCSI ID setting (NP model)

Table 1 shows the SCSI ID setting. Refer to Figure 1 for connector position.

IMPORTANT

When the SCSI ID is set using the external operator panel connector CN1, all pins listed in Table 1 should be open. If any of pins are shorted, unexpected SCSI is set.

1. Set the SCSI ID so that there are no duplicates between SCSI devices on the same SCSI bus.
2. The priority of SCSI bus use in ARBITRATION phase is determined by SCSI ID as follows:

7>6>5>4>3>2>1>0>15>14>13>12>11>10>9>8

Table 1 SCSI ID setting

SCSI ID	CN2			
	1-2	3-4	5-6	7-8
0	OPEN	OPEN	OPEN	OPEN
1	SHORT	OPEN	OPEN	OPEN
2	OPEN	SHORT	OPEN	OPEN
3	SHORT	SHORT	OPEN	OPEN
4	OPEN	OPEN	SHORT	OPEN
5	SHORT	OPEN	SHORT	OPEN
6	OPEN	SHORT	SHORT	OPEN
7	SHORT	SHORT	SHORT	OPEN
8	OPEN	OPEN	OPEN	SHORT
9	SHORT	OPEN	OPEN	SHORT
10	OPEN	SHORT	OPEN	SHORT
11	SHORT	SHORT	OPEN	SHORT
12	OPEN	OPEN	SHORT	SHORT
13	SHORT	OPEN	SHORT	SHORT
14	OPEN	SHORT	SHORT	SHORT
15 *	SHORT	SHORT	SHORT	SHORT

* Setting at factory shipment

2.4 Setting terminal power supply (NP model)

Refer to Table 2 for controlling the supply of power from the drive to SCSI terminal resistance power source (TERMPOW). However, this setting may not be used with NC model. For information on NP type model, refer to Figure 1.

Table 2 Setting SCSI terminator power supply (NP model only)

Supply on/off of SCSI terminator power from HDD	CN2 23-24
Supply off	OPEN
Supply on	SHORT *

* Setting at factory shipment

2.5 Motor start mode (NP model)

Set how to control the starting of the HDD spindle motor according to Table 3. This setting only determines the operation mode when the power supply is turned on. The stopping or restarting the spindle motor can be controlled by specifying the START/STOP UNIT command.

Table 3 Motor start mode setting (NP model only)

Start timing of the spindle motor	CN2 11-12
Starting of the motor is controlled with START/STOP UNIT command.	OPEN
The motor is started immediately after the power supply is turned on.	SHORT *

* Setting at factory shipment

2.6 Write protect (NP model)

When the write protect function is enabled, writing to the disk medium is disabled.

Table 4 Write protect setting

Write protect	CN2 9-10
Write operation is enabled.	OPEN *
Write operation is disable.	SHORT

* Setting at factory shipment

2.7 Setting of the SCSI interface operation mode (NP model)

By establishing a short-circuit between the 13 and 14 CN2 setting terminals, the bus width for the SCSI interface is forcibly set to the 8-bit bus mode. The setup terminal must be set in order to guarantee the physical level of the SCSI interface's upper bus (DB8-15, P1) inside the HDD only when the top-level bus (DB8-15, P1) for the HDD SCSI interface is not connected to the external part of the HDD.

Table 5 Setting of the SCSI interface operation mode

Operation mode	CN2 15-16
Follows the DIFFSNS signal level on the SCSI bus	OPEN *
Single-Ended mode.	SHORT

* Setting at factory shipment

2.8 Setting the bus width of the SCSI interface (NP model)

By establishing a short-circuit between the 13 and 14 CN2 setting terminals, the bus width for the SCSI interface is forcibly set to the 8-bit bus mode. The setup terminal must be set in order to guarantee the physical level of the SCSI interface's upper bus (DB8-15, P1) inside the HDD only when the top-level bus (DB8-15, P1) for the HDD SCSI interface is not connected to the external part of the HDD.

Table 6 Setting the bus width of the SCSI interface

Bus width	CN2 13-14
16 bit bus	OPEN *
8 bit bus	SHORT

* Setting at factory shipment

3. Mode settings : NC model, NP model

In addition to the previously described settings using setting terminals, the HDD is provided with several mode settings. The mode settings are enabled by specifying the CHANGE DEFINITION command. Table 7 lists the mode settings and their settings at factory shipment.

Table 7 Default mode settings (by CHANGE DEFINITION command)

Mode setting	Contents *
SCSI level	Refer to Table 8 or Table 9
SYNCHRONOUS DATA TRANSFER REQUEST message sending	Not Sent from HDD
UNIT ATTENTION report mode	Reported
Reselection retry count	Not restricted
WIDE DATA TRANSFER REQUEST message sending	Not Sent from HDD
Reselection time-out delay	250ms
Spindle motor start delay time	0 second (NP) 12 seconds x SCSI ID (NC)

* Setting at factory shipment

Table 8 : SCSI-2 product

MAP3147NC	MAS3184NC	MAT3073NC	MAU3036NC
MAP3147NP	MAS3184NP	MAT3073NP	MAU3036NP
MAP3367NC	MAS3367NC	MAT3147NC	MAU3073NC
MAP3367NP	MAS3367NP	MAT3147NP	MAU3073NP
MAP3735NC	MAS3735NC	MAT3300NC	MAU3147NC
MAP3735NP	MAS3735NP	MAT3300NP	MAU3147NP

Table 9 : SCSI-3 product

MAW3073NC	MAX3036NC	MBA3073NC
MAW3073NP	MAX3036NP	MBA3073NP
MAW3147NC	MAX3073NC	MBA3147NC
MAW3147NP	MAX3073NP	MBA3147NP
MAW3300NC	MAX3147NC	MBA3300NC
MAW3300NP	MAX3147NP	MBA3300NP