HITACHI DK515

JUMPER PLUG INSTALLATION

The following jumpers are accessible to the user.

Setting of Terminator Module and Terminator Switches	JP224	1-6
	JP281	1-2
Drive Address Jumper	JP213	1-6
Write Protect Jumper	JP213	7-8
Sector Mode Select Jumper	JP282	1-2
Motor Control Jumper	JP282	7-8
Synchronized Spindle Mode Select Jumper	JP282	3-6
Sector Length Jumper	JP282	9-14

Terminator and Jumper setting: Before this jumper plug installation/ setting, please use ESD protected cushioning material for safer operation.
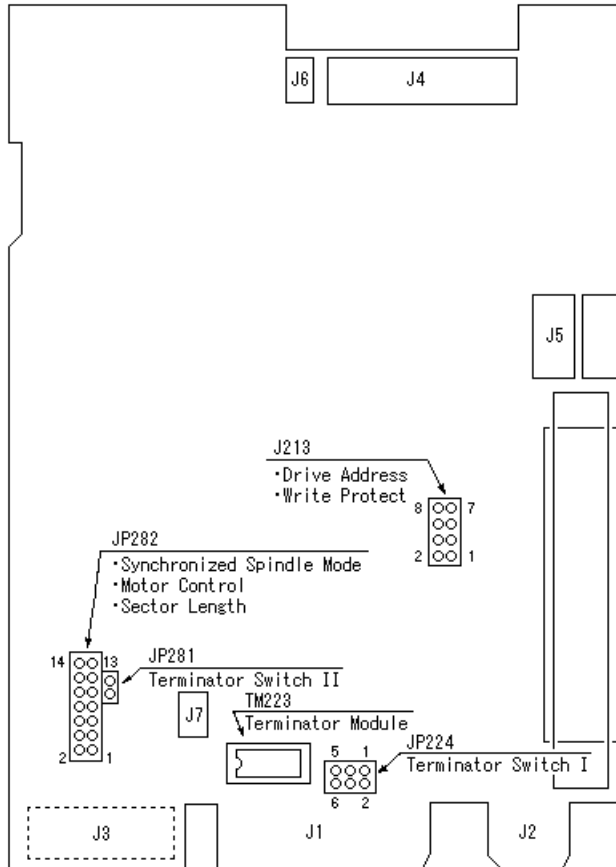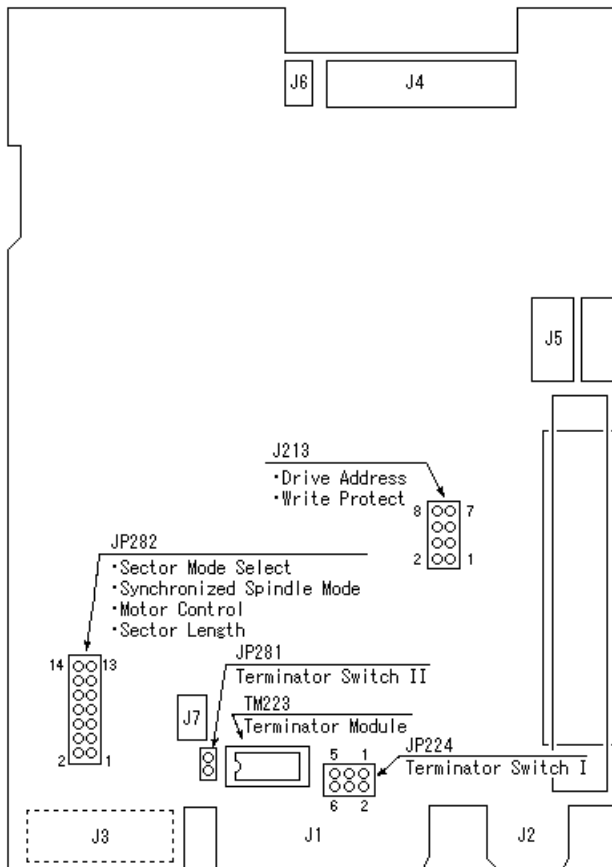
Setting of SZ931 PCB
Fig. 2-7 SZ931 PCB Layout
(PCB Rev. 0)

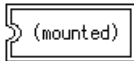Fig. 2-7A SZ931 PCB Layout
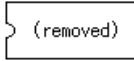(PCB Rev. 1 or Later)

Setting of Terminator Module and Terminator Switches

Control Signal

Each drive in Radial connection of cable B and the last end of the drives in Daisy Chain connection of cable B should be terminated.
Since a terminator module (TM223) and Terminator Switch I (JP224) are provided to all drives as shipped, remove both of them except the last drive's ones in case of Daisy Chain connection.

Table 2-1 Terminator Module and Terminator Switch I

Configuration	Terminator Module (TM223)	Terminator Switch I (JP224, pin 1-6)
- Single drive on cable B - All drive in Radial connection - The last drive in Daisy Chain	(mounted)	6 [⬚] 5 [⬚] 2 [⬚] 1
-All drives except the last one in Daisy Chain	(removed)	6 [o o] 5 [o o] 2 [o o] 1

At the time of shipment, Terminator Module and Terminator Switch I are mounted on Terminator socket.

Synchronized Spindle Signal

Synchronized Spindle Signal is terminated via JP281 to terminator register on the PCB. When the synchronized spindle option is used, JP281 shall be removed except the last drive's one in Daisy Chain of Synchronized Spindle Signal.

Table 2-2 Terminator Switch II

Configuration	Terminator Switch II (JP281)
The last Slave drive	2 [⬚] 1
All drives except the last Slave drive	2 [o o] 1

A drive as shipped is mounted with Terminator Switch II

Drive Address Jumper (JP213, Pin 1-6)

Drive address can be selected by using the jumper switch (JP213) the jumper setting and the selected Drive address is shown in table 2-3. Drive No. 0 is not used.

Table 2-3 Jumper Setting for Drive Address

Drive No.	None	#1	#2	#3
JP213 (pin 1-6)				

Drive No.	#4	#5	#6	#7
JP213 (pin 1-6)				

At the time of shipment, Drive #1 is selected.

Write Protect Jumper (JP213, Pin 7-8)

Write operation of a drive is inhibited by setting a jumper on JP213, pin 7-8 (Write Protect mode), which condition will generate ATTENTION status upon receiving of WRITE GATE-N signal.

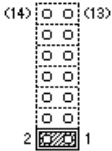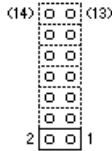Table 2-4 Jumper setting for Write Protect

Function	Write Enable	Write Protect
JP213 (pin 7-8)		

At the time of shipment, "Write Enable" mode is selected.

Sector Mode Select Jumper (JP282, Pin 1-2)

The drive with Hard Sector mode issues SECTOR clock on J1-pin16 and J2-pin2, and with Soft Sector mode does ADDRESS MARK FOUND-N on J1-pin16 and J2-pin2. "SET CONFIGURATION" command takes precedence over this Jumper Setting function.

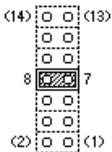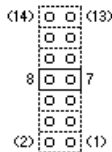Table 2-5 Jumper Setting for Sector Mode Selection

JP282 (pin 1-2)		
Function	Hard Sector	Soft Sector

At the time of shipment, "Hard Sector" mode is selected.

Motor Control Jumper (JP282, Pin 7-8)

When the "Start/Stop Spindle Motor" option is to be used, set the jumper as "Supported" before DC power on.
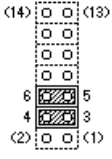
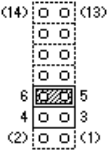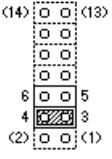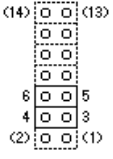Table 2-6 Jumper Setting for Motor Start/Stop

JP282 (pin 7-8)		
Function	Not Supported	Supported

At the time of shipment, "Not Supported" mode is selected.

Synchronized Spindle Mode Select Jumper (JP282, Pin 3-6)

Synchronized spindle mode can be selected by using the jumper switch (JP282, pin 3-6). This Jumper Setting will be aborted by the following Set Configuration command. Set the jumpers, before turning on the DC power. For the detail, refer "DK51X Winchester Disk Drive Synchronized Spindle Feature Specification".

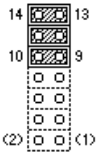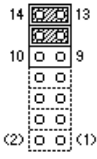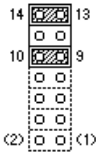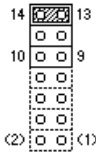Table 2-7 Jumper Setting for Synchronized Spindle Mode

JP282 (pin 3-6)				
Function	Off Line	Slave	Master	Remote

At the time of shipment, "Off Line" mode is selected.

Sector Length Jumper (JP282, Pin 9-14)

This Jumper Setting function is effective with Hard Sector mode. This Jumper Setting will be aborted by the following "SET BYTES PER SECTOR" command. All the applicable configurations of Bytes/Sector or Sectors/Track are listed in the following table. Set the jumper(s) before turning on the DC power.

Table 2-8 Jumper Setting for Sector Length

JP282 (pin 9-14)				
Bytes Per Sector	335	338	593	602
Sectors Per Track	122	121	69	68
Data Length	256	256	512	512

JP282 (pin 9-14)				
Bytes Per Sector	Adjustment Mode	1107	Not Used	
Sectors Per Track		37		
Data Length		1024		

At the time of shipment, 122 sectors per track is selected.