

D K 5 1 1 - 8 HITACHI

NO MORE PRODUCED

			Native	Translation
			-----+-----+-----+-----	
Form	5.25"/FH		Cylinders	823
Capacity form/uniform	68/ MB		Heads	10
Seek time / track	23.0/ ms		Sector/track	17
Controller	MFM / ST506		Precompensation	400
Cache/Buffer	KB		Landing Zone	822
Data transfer rate	0.625 MB/S int		Bytes/Sector	512
	0.625 MB/S ext			
Recording method	MFM		operating	non-operating
			-----+-----	
Supply voltage	5/12 V	Temperature *C		
Power: sleep	W	Humidity %		
standby	W	Altitude km		
idle	W	Shock g		
seek	W	Rotation RPM	3600	
read/write	W	Acoustic dBA		
spin-up	W	ECC Bit		
		MTBF h		
		Warranty Month		
Lift/Lock/Park	NO	Certificates		

L A Y O U T

HITACHI DK511 PRODUCT MANUAL K6600061 REV. 7 10/01/1985

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+-----+
++LED          xxJP164 +-----+9      4--3      |XX
++              JP155      1-----8      | |JP117  |XX
|              16-----9      JP123      6--1      |XX J2
|              1+-----+      PLO      Write Prot. |XX
|              Velocity      |              |XX
|              Gain          6--5      |XX
|              Write        | |JP113 |
|              Protect      | |      |XX
| SZ073 PCB REV. 3          +--1      |XX
| Component Side          +--4      |XX J1
|              General xxJP70 | |JP68  |XX
|              Reset      8--1Drive |XX
|              Select      |XX
|              +-----+Term. |
|              + 5A |      + IC |      |xx
|              +-----+      +-----+      |XX
| (POSN-P) TP27Ax xTP10A (GND)      |XX J3
+-----+

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+-----+
++LED          xxJP164 +-----+9      4--3      |XX
++              JP155      1-----8      | |JP117  |XX
|              16-----9      JP123      6--1      |XX J2
|              1+-----+      |              |XX
|              |              6--5      |XX
|              | |JP113 |
|              | |      |XX
| SZ073 PCB REV. 4 or 5          +--1      |XX
| Component Side          +--4      |XX J1
|              1xxx3      | |JP68  |XX
|              JP70      8--1      |XX
|              |              |XX
|              +-----+Term. |
|              + 5A |      + IC |      |xx
|              +-----+      +-----+      |XX
| (POSN-P) TP27Ax xTP10A (GND)      |XX J3
+-----+

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+-----+
++LED xxx JP182A          xxJP164 +-----+9      4--3      |XX
++      1  3      JP155      1-----8      | |JP117 |XX
|              16-----9      JP123      6--1      |XX J2
|              1+-----+      |              |XX
|              |              |              |XX
|              |              |              |XX
|              |              |              |XX
|              |              |              |XX
|      SZ073 PCB REV. 6      |              |XX
|      Component Side      |              |XX J1
|              |              |              |XX
|              1xxx3      | |JP68      |XX
|              JP70      8--1      |XX
|              |              |XX
|              +-----+Term.      |
|              + 5A      |      + IC      |xx
|              +-----+      +-----+      |XX
|      (POSN-P) TP27Ax  xTP10A (GND)      |XX J3
+-----+

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+-----+
|              +--+|
|              | ||
|      Head Sel #7  3xxx1 |J7||
|      Fault Jumper > JP4A | ||
|      Switch      +--+|
|              +--+|
|              |  +----
|      +-----+      | J4||
|      |      |      |  +-----
|      | J8  |      +--+|
|      |      |      +-+|
|      +-----+      J5| ||
|              | ||
|              | ||
|              +-+|
|              J6+--+ |
|              +--+ |
+-----+

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Jumper Setting

Adjustment

There are two types of jumper switches for DK511 as follows:

CAUTION

1. Jumper Switches with GREEN connectors: to be used for an assignment of unit address and for selection of optional functions, and to be arranged when installing the unit or replacing the PC board.
2. Jumper Switches with BLACK connectors; to be used for adjusting servo control circuits. These need not be readjusted when installing the unit or replacing to a spare PC board since they have already been adjusted at shipment. Even if a readjustment is needed by all means, be sure to make a record of their preset status prior to readjust them for the capability of recovery.

Setting of GREEN Jumper Switches

JP68 Drive Select Jumper Switch

There is the jumper switch to select the drive address number. Set up the switch as follows:

8 7 6 5	8 7 6 5	8 7 6 5	8 7 6 5
+-----+	+-----+	+-----+	+-----+
X o o o	o X o o	o o X o	o o o X
X o o o	o X o o	o o X o	o o o X
+-----+	+-----+	+-----+	+-----+
1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Drive 0	Drive 1	Drive 2	Drive 3

As shipped, the jumper pins 1 to 8 is shorted for Drive 0.

Jumper for Optional Functions

General Reset Jumper Switch

As an optional feature, there is General Reset signal (J1-2 pin) which can be available by the jumper switch (JP70 on SZ073 PCB REV. 3 SZ073 PCB REV. 4 or 5, SZ073 PCB REV. 6).

Set up the jumper switch as follows:

General Reset Jumper Switch SZ073 PCB REV. 3

JP70	JP70
+-+	+-+
o J1-2 pin is OPEN	X General Reset Signal is available
o	X
+-+	+-+
Primary	Optional

When shipped the jumper is set to the primary position.

General Reset Jumper Switch SZ073 PCB REV. 4

JP70	JP70
+++	+++
X 1 J1-2 pin is OPEN	o General Reset Signal is available
X 2	X
o 3	X
+++	+++
Primary	Optional

When shipped the jumper is set to the primary position.

Write Protect Jumper Switch

As an optional feature, there are WRITE PROTECT (J2-7 Pin) and WRITE PROTECTED signal (J2-11 pin) which can be available by the jumper switches (JP113 and JP117). Setting up these jumper switches are as follows:

Primary	

JP113	JP117
10-----6+ +6---4+	JP113 J2-7 pin is connected to J1-16 pin.
o X o o o o o o	JP117 J2-11 pin is GND.
o X o o o o xxx	
+1-----5+ +1---3+	
Optional	

JP113	JP117
10-----6+ +6---4+	JP113 Write Protect signal is available.
o o o o o o X o	JP117 Write Protected signal is available.
xxx o o o o X o	
+1-----5+ +1---3+	

When shipped, these jumpers are set in the primary position.

JP182A LED Jumper Switch

There is the jumper switch (SZ073 PCB REV. 6) deactivating the green LCD.

Primary	Optional
-----	-----
+++	+++
1 X LED activated	1 o LED deactivated (OFF)
2 X	2 X
3 o	3 X
+++	+++

When shipped, this jumper is set in the primary position.

Terminator

If the multiple drives are connected in the daisy chain mode, only the last drive must be terminated with a terminator module. When shipped, the terminator module (IC#IC) is installed. Remove it all but the last drive (if the multiple drives in the daisy chain mode).

Adjustment Specification (BLACK Jumper)

NOTE

Since adjustment portions are already adjusted when the device is shipped, don't move them unless understanding the prior "CAUTION" of this chapter.

JP4A Head Sel #7 Fault Jumper Switch

(This jumper is available from SZ073 Rev. 7)

Write Fault caused by invalid head selection is ignored by this option. If this option doesn't use, the selection of HD#7 causes Write Fault. This option is available on and after SZ073 REV. 7.

Primary	Optional
++ JP4A	++ JP4A
1 o HD#7 selection	1 x HD#7 selection doesn't
2 X causes Write	2 X causes Write Fault.
3 X Fault.	3 o
++	++

When shipped, this jumper is set in the primary position.

PLO free-running frequency

- Pull J6 Connector and insert Jumper socket in JP164 for allowing the error signal to set at zero.
- Turn the power on, and adjust the value of JP117-6 pin within the range of 10 MHz ± 1% using JP123.
- After completion of aforementioned adjustment, turn the power off, insert J6 Connector in the original position, and then pull Jumper Socket out of JP164.
- Turn the power on again and ensure that an operation is in normal status (device in READY status).

