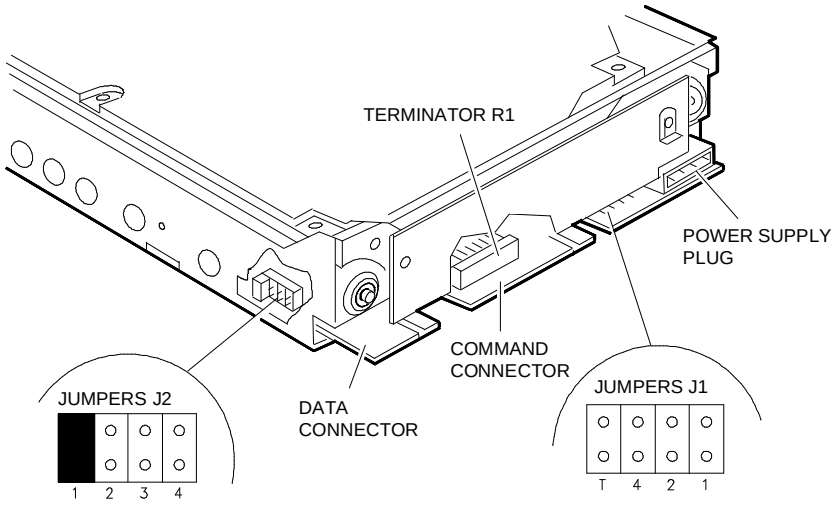
ESDI HARD DISK DRIVES

81 MB HDU	CDC WREN 3 ST2106E	ESDI



ROTATION	CYLINDERS	DISKS	HEADS	RECORD.
3597 RPM	1024	3	5	RLL

JUMPERS J1			DRIVE ADDRESS SELECTION
4	2	1	
OFF	OFF	ON	Drive 1
OFF	ON	OFF	Drive 2
OFF	ON	ON	Drive 3
OFF	OFF	OFF	Drive 4
OFF	OFF	ON	Drive 5
OFF	ON	OFF	Drive 6
OFF	ON	ON	Drive 7

JUMPER J1-T	SEEK TEST SELECTION
ON	Test active
OFF	Test not active *

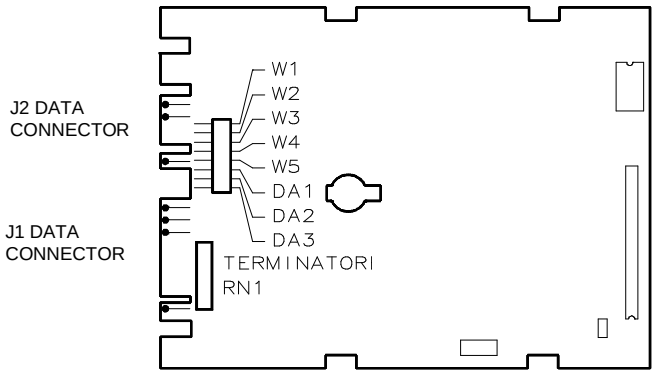
JUMPER J2-1	DRIVE MOTOR STARTING
ON	The motor is started by a Start command
OFF	The motor starts at power up *

JUMPERS J2			DEFAULT SECTOR CONFIGURATION
2	3	4	
OFF	OFF	OFF	64 sector per track
OFF	ON	OFF	36 sectors per track
ON	ON	OFF	34 sectors per track
ON	OFF	OFF	35 sectors per track *
ON	OFF	ON	19 sectors per track
ON	ON	ON	Soft sector mode

TERMINATOR R1

Terminator R1 must only be present on the last drive in the HDU line; it must be removed from all the other ones. If there is only one drive, the terminator there must be present.

135 MB HDU	MICROPOLIS 1355	ESDI



ROTATION	CYLINDERS	DISKS	HEADS	RECORD.
3600 RPM	1024	5	8	RLL

JUMPERS			DRIVE ADDRESS SELECTION
DA3	DA2	DA1	
OFF	OFF	ON	Drive 1
OFF	ON	OFF	Drive 2
OFF	ON	ON	Drive 3
ON	OFF	OFF	Drive 4
ON	OFF	ON	Drive 5
ON	ON	OFF	Drive 6
ON	ON	ON	Drive 7

JUMPER W5	DRIVE MOTOR STARTING
ON	The motor is started by a Start command
OFF	The motor starts at power up *

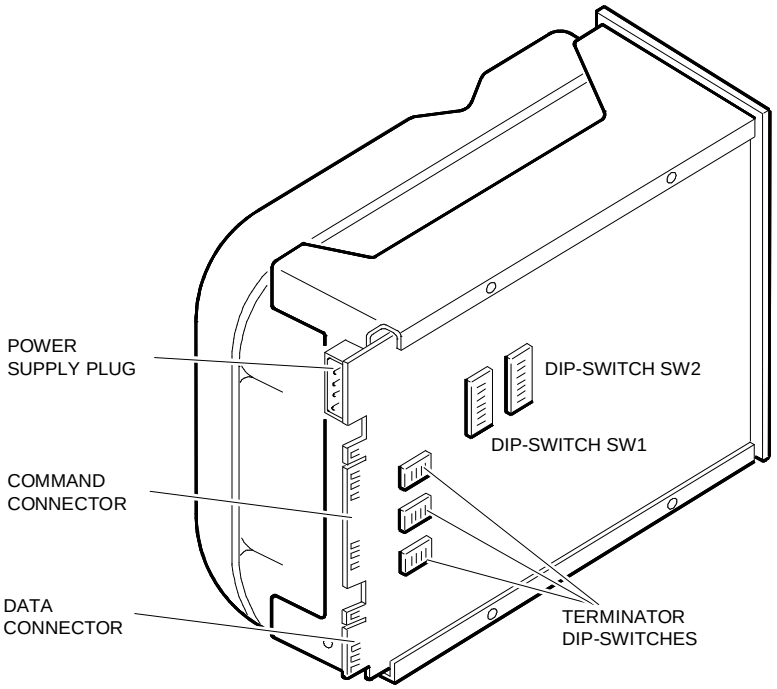
JUMPER W1	SECTORISATION
ON	Soft sector mode
OFF	Hard sector mode *

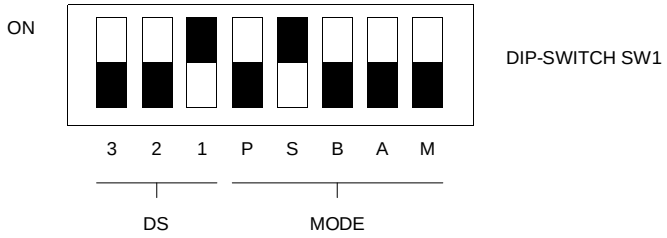
JUMPERS			DEFAULT SECTOR CONFIGURATION		
			SECTORS	BYTES/SECTOR	
W4	W3	W2		FORMATTED	NOT FORMATTED
OFF	OFF	OFF	35	512	595 *
OFF	OFF	ON	63	256	330
OFF	ON	OFF	19	1024	1096
OFF	ON	ON	9	2048	2314
ON	OFF	OFF	5	4096	4166
ON	OFF	ON	32	512	651
ON	ON	OFF	64	256	325
ON	ON	ON	1	20832	20832

TERMINATOR RN1

Terminator RN1 must only be present on the last drive in the HDU line; it must be removed from all the other drives. If there is only one drive, the terminator must be present.

136 MB HDU	NEC D5652	ESDI





ROTATION	CYLINDERS	DISKS	HEADS	RECORD.
3600 RPM	820	5	10	RLL

DIP-SWITCH			DRIVE ADDRESS SELECTION
DS3	DS2	DS1	
OFF	OFF	ON	Drive 1
OFF	ON	OFF	Drive 2
OFF	ON	ON	Drive 3
ON	OFF	OFF	Drive 4
ON	OFF	ON	Drive 5
ON	ON	OFF	Drive 6
ON	ON	ON	Drive 7

DIP-SWITCH P	WRITE PROTECTION
ON	Write protection enabled
OFF	Write protection disabled *

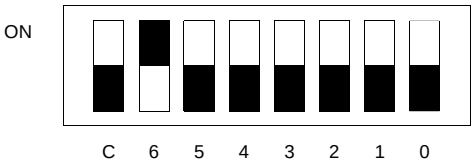
DIP-SWITCH S	SECTORISATION
ON OFF	Hard sector mode enabled * Hard sector mode disabled

DIP-SWITCH B	BYTE CLOCK
OFF ON	Byte clock mode not enabled * Byte clock mode enabled

DIP-SWITCH A	ADDRESS SIGN
OFF ON	Disabled address sign found * Enabled address sign found

Note: *When Dip-Switch S is set to ON, Dip-Switches B and A must be OFF.*

DIP-SWITCH M	DRIVE MOTOR START
ON OFF	The motor is started by a Start command The motor starts at power up *



DIP-SWITCH SW2

7

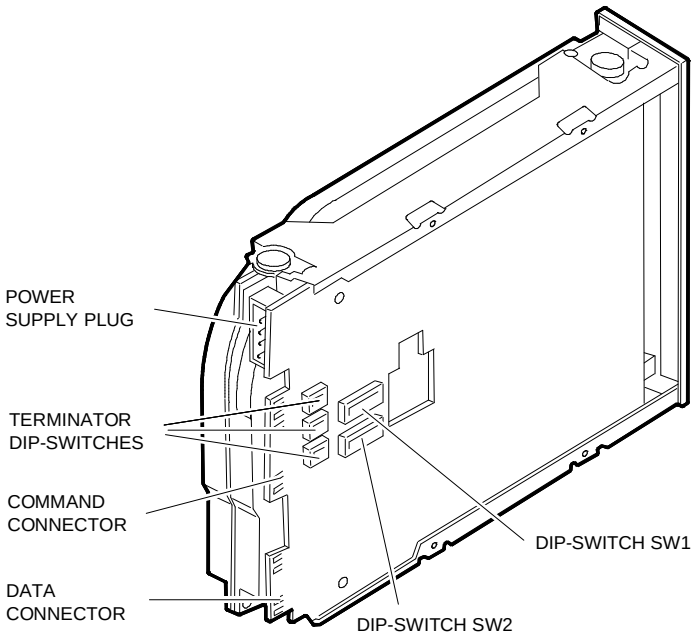
DIP-SWITCH C	BYTE SETTINGS PER SECTOR
OFF ON	The byte setting command is not accepted for sector * Accepts the byte setting command per sector. (DIP-Switches S and M of block A must be ON)

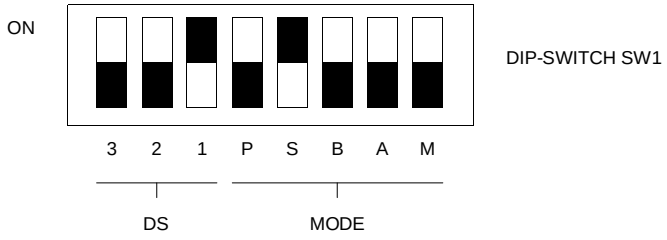
DIP-SWITCH							SECTOR CONFIGURATION	
6	5	4	3	2	1	0	SECTORS/TRACK	BYTES/SECTOR
OFF	OFF	OFF	ON	ON	ON	ON	15	1399
OFF	OFF	ON	OFF	OFF	OFF	OFF	16	1312
OFF	OFF	ON	OFF	OFF	OFF	ON	17	1234
OFF	OFF	ON	ON	ON	ON	ON	31	677
OFF	ON	OFF	OFF	OFF	OFF	OFF	32	656
OFF	ON	OFF	OFF	OFF	OFF	ON	33	636
OFF	ON	OFF	OFF	OFF	ON	ON	35 *	599
OFF	ON	ON	ON	ON	ON	ON	63	333
ON	OFF	OFF	OFF	OFF	OFF	OFF	64	328
ON	OFF	OFF	OFF	OFF	OFF	ON	65	322
ON	OFF	OFF	OFF	OFF	ON	OFF	66	318

TERMINATOR DIP-SWITCHES

All the DIP-Switches of the terminator resistance must be ON only on the last drive in the HDU chain. They must be OFF on all the other HDUs installed in the system. If there is only one drive, the DIP-Switches must be ON.

136 MB HDU	NEC D5655	ESDI





ROTATION	CYLINDERS	DISKS	HEADS	RECORD.
3600 RPM	1021	5	10	RLL

DIP-SWITCH			DRIVE ADDRESS SELECTION
DS3	DS2	DS1	
OFF	OFF	ON	Drive 1
OFF	ON	OFF	Drive 2
OFF	ON	ON	Drive 3
ON	OFF	OFF	Drive 4
ON	OFF	ON	Drive 5
ON	ON	OFF	Drive 6
ON	ON	ON	Drive 7

DIP-SWITCH P	WRITE PROTECTION
ON	Enabled write protection
OFF	Disabled write protection *

DIP-SWITCH S	SECTORISATION
ON OFF	Hard sector mode enabled * Hard sector mode disabled

DIP-SWITCH B	BYTE CLOCK
OFF ON	Byte clock mode disabled * Byte clock mode enabled

DIP-SWITCH A	ADDRESS SIGN
OFF ON	Detection of address sign disabled * Detection of address sign enablede

Note: *When Dip-Switch S is set to ON, Dip-Switches B and A must be OFF.*

DIP-SWITCH M	DRIVE MOTOR START
ON OFF	The motor is started by a Start command The motor starts at power up *

DIP-SWITCH SW2

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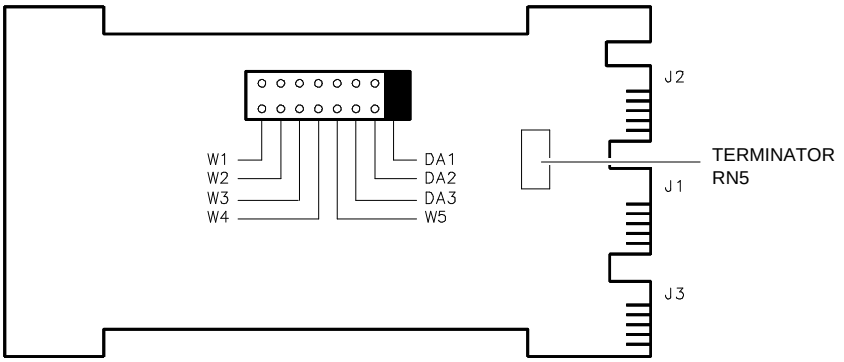
DIP-SWITCH C	BYTE SETTING FOR EACH SECTOR
OFF ON	The byte setting command is not accepted for sector * Accepts by setting command for sector for each sector. (DIP-Switches S and M of block A must be ON)

DIP-SWITCH							SECTOR CONFIGURATION	
6	5	4	3	2	1	0	SECTORS/TRACKS	BYTES/SECTOR
OFF	OFF	OFF	ON	ON	ON	ON	15	1399
OFF	OFF	ON	OFF	OFF	OFF	OFF	16	1312
OFF	OFF	ON	OFF	OFF	OFF	ON	17	1234
OFF	OFF	ON	ON	ON	ON	ON	31	677
OFF	ON	OFF	OFF	OFF	OFF	OFF	32	656
OFF	ON	OFF	OFF	OFF	OFF	ON	33	636
OFF	ON	OFF	OFF	OFF	ON	ON	35 *	599
OFF	ON	ON	ON	ON	ON	ON	63	333
ON	OFF	OFF	OFF	OFF	OFF	OFF	64	328
ON	OFF	OFF	OFF	OFF	OFF	ON	65	322
ON	OFF	OFF	OFF	OFF	ON	OFF	66	318

TERMINATOR DIP-SWITCHES

All the DIP-Switches of the terminator resistances must be ON only on the last drive in the HDU chain. They must be OFF on all the other HDUs installed in the system. If there is only one drive, the DIP-Switches must all be ON.

136 MB HDU	MICROPOLIS 1654-7	ESDI



ROTATION	CYLINDERS	DISKS	HEADS	RECORD.
3600 RPM	1249	4	7	RLL

JUMPERS			DRIVE ADDRESS SELECTION
DA3	DA2	DA1	
OFF	OFF	ON	Drive 1
OFF	ON	OFF	Drive 2
OFF	ON	ON	Drive 3
ON	OFF	OFF	Drive 4
ON	OFF	ON	Drive 5
ON	ON	OFF	Drive 6
ON	ON	ON	Drive 7

JUMPER W5	DRIVE MOTOR START
ON	The motor is started by a Start command
OFF	The motor starts at power up *

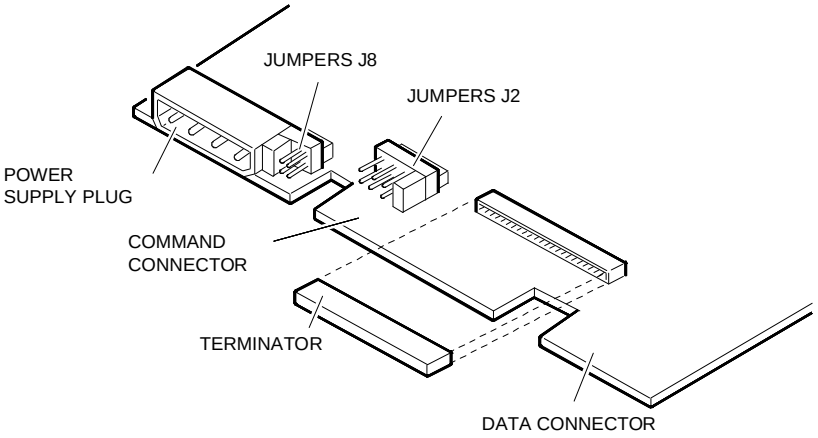
JUMPER W1	SECTORISATION
OFF	The disk sectors are handled in Hard Sector mode *
ON	The disk sectors are handled in Soft Sector mode

SECTOR CONFIGURATION	JUMPERS			SECTOR NUMBER	BYTES PER SECTOR formatted (not formatted)
	W2	W3	W4		
0 *	OFF	OFF	OFF	35	512 (596)
1	ON	OFF	OFF	36	512 (578)
2	OFF	ON	OFF	19	1024 (1096)
3	ON	ON	OFF	9	2048 (2314)
4	OFF	OFF	ON	5	4096 (4166)
5	ON	OFF	ON	32	512 (651)
6	OFF	ON	ON	64	256 (325)
7	ON	ON	ON	1	20832 (20832)

TERMINATOR RN5

Terminator RN5 must be present only on the last drive in the HDU chain. It must be removed from all the other HDUs installed in the system. If there is only one drive the terminator must be present.

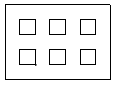
136 MB HDU 320 MB HDU	SEAGATE WREN 6 ST2182E SEAGATE WREN 6 ST2383E	ESDI



MODEL	ROTATION	CYLINDERS	DISKS	HEADS	RECORD.
ST2182E ST2383E	3600 RPM 3600 RPM	1747	4	7	RLL RLL

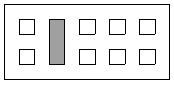
7

JUMPERS J8



1 2 4

JUMPERS J8			DRIVE ADDRESS SELECTION
1	2	4	
ON	OFF	OFF	Drive 1
OFF	ON	OFF	Drive 2
ON	ON	OFF	Drive 3
OFF	OFF	ON	Drive 4
ON	OFF	ON	Drive 5
OFF	ON	ON	Drive 6
ON	ON	ON	Drive 7



JUMPERS J2

1 2 3 4 5

JUMPERS			SECTOR CONFIGURATION	
2	3	4	SECTORS	BYTES/SECTOR
OFF	OFF	OFF	96	256
OFF	OFF	ON	54	512
OFF	ON	OFF	15	1024
OFF	ON	ON		
ON	OFF	OFF	53 *	512
ON	OFF	ON	51	512
ON	ON	OFF	28	1024
ON	ON	ON	Soft mode sector	

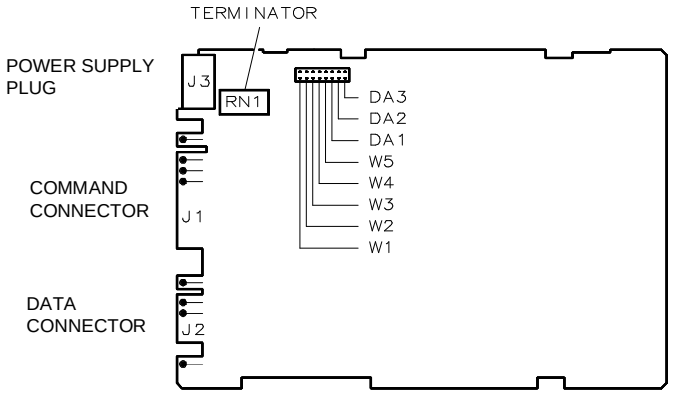
JUMPER 5	DRIVE MOTOR START
ON	The motor is started by a Start command
OFF	The motor starts at power up *

TERMINATORS

The terminator must be present only on the last drive in the HDU chain; it must be removed from all the others. If there is only one drive, the terminator must be present.

Notes: - *Jumper 1 of block J2 is only used in production (position OFF).*
- *The HDU ST2182E, on M380/XP9s, can only be installed if it is connected to the GO535.*

304 MB HDU	MICROPOLIS 1558	ESDI



ROTATION	CYLINDERS	DISKS	HEADS	RECORD.
3600 RPM	1224	8	15	RLL 2.7

JUMPERS			DRIVE SELECTION ADDRESS
DA3	DA2	DA1	
OFF	OFF	ON	Drive 1
OFF	ON	OFF	Drive 2
OFF	ON	ON	Drive 3
ON	OFF	OFF	Drive 4
ON	OFF	ON	Drive 5
ON	ON	OFF	Drive 6
ON	ON	ON	Drive 7

JUMPER W1	SECTORISATION
OFF	The disk sectors are handled in Hard Sector mode *
ON	The disk sectors are handled in Soft Sector mode

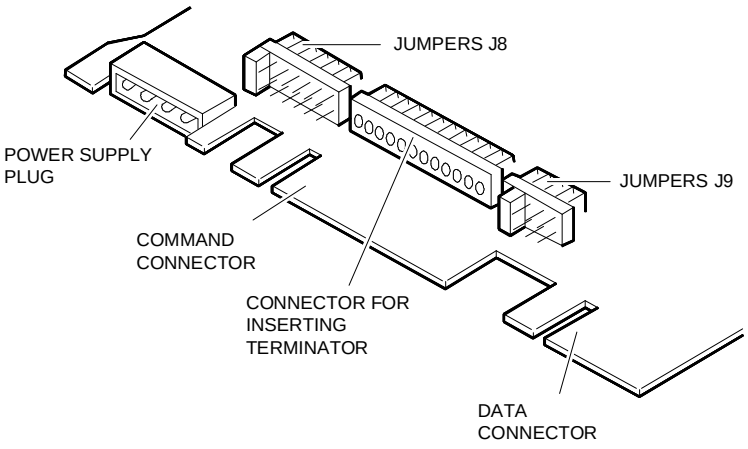
JUMPER W5	DRIVE MOTOR START
ON	The motor is started by a Start command
OFF	The motor starts at power up *

JUMPERS			DEFAULT SECTOR CONFIGURATION		
			SECTORS	BYTES/SECTORS	
W4	W3	W2		FORMATTED	NOT FORMATTED
OFF	OFF	OFF	35 *	512	595
OFF	OFF	ON	36	512	578
OFF	ON	OFF	19	1024	1096
OFF	ON	ON	9	2048	2314
ON	OFF	OFF	5	4096	4166
ON	OFF	ON	32	512	651
ON	ON	OFF	64	256	325
ON	ON	ON	1	20832	20832

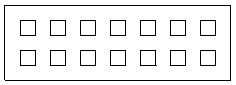
TERMINATOR RN1

Terminator RN1 must be present only on the last drive in the HDU chain. It must be removed from all the other HDUs installed in the systems. If there is only one drive the terminator must be present.

304 MB HDU	SEAGATE WREN 5 ST4383E	ESDI



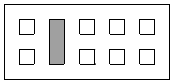
ROTATION	CYLINDERS	DISKS	HEADS	RECORD.
3600 RPM	1412	7	13	RLL



JUMPERS J8

1 2 3 4 5 6 7

JUMPERS J8							DRIVE ADDRESS SELECTION
1	2	3	4	5	6	7	
ON	OFF	OFF	OFF	OFF	OFF	OFF	Drive 1
OFF	ON	OFF	OFF	OFF	OFF	OFF	Drive 2
OFF	OFF	ON	OFF	OFF	OFF	OFF	Drive 3
OFF	OFF	OFF	ON	OFF	OFF	OFF	Drive 4
OFF	OFF	OFF	OFF	ON	OFF	OFF	Drive 5
OFF	OFF	OFF	OFF	OFF	ON	OFF	Drive 6
OFF	OFF	OFF	OFF	OFF	OFF	ON	Drive 7



JUMPERS J9

5 4 3 2 1

JUMPER 5	DRIVE MOTOR START
ON	The motor is started by a Start command
OFF	The motor starts at power up *

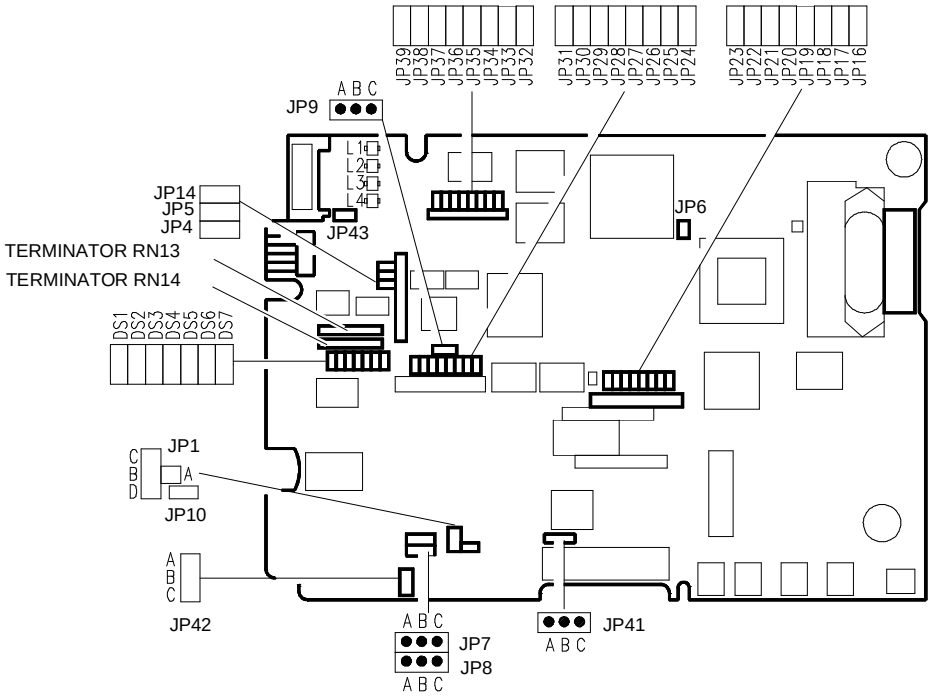
JUMPERS J9			SECTORS
4	3	2	
ON	OFF	OFF	35

TERMINATORS

The terminator must only be present on the last drive in the HDU chain; it must be removed from all the other ones. If there is only one drive, the terminator must be present.

Note: *Jumper 1 of block J9 is only used in production (position: OFF).*

618 MB HDU	MAXTOR XT8760E (pcb p/n 1014520)	ESDI



ROTATION	CYLINDERS	DISKS	HEADS	RECORD.
3600 RPM	1632	8	15	RLL

JUMPERS DS1-DS7							DRIVE ADDRESS SELECTION
DS1	DS2	DS3	DS4	DS5	DS6	DS7	
ON	OFF	OFF	OFF	OFF	OFF	OFF	Drive 1
OFF	ON	OFF	OFF	OFF	OFF	OFF	Drive 2
OFF	OFF	ON	OFF	OFF	OFF	OFF	Drive 3
OFF	OFF	OFF	ON	OFF	OFF	OFF	Drive 4
OFF	OFF	OFF	OFF	ON	OFF	OFF	Drive 5
OFF	OFF	OFF	OFF	OFF	ON	OFF	Drive 6
OFF	OFF	OFF	OFF	OFF	OFF	ON	Drive 7

JUMPER JP6	DRIVE MOTOR START
OFF ON	The motor is started by a Start command The motor starts at power up *

JUMPER JP14	ENABLE WRITING ON DISK
OFF ON	Enabling writing on disk * Disabling writing on disk

JUMPER JP8		JUMPER JP7		SET DELAY IN WRITE PHASE - EXPECTED DELAY (nsec)
A - B	B - C	A - B	B - C	
OFF	OFF	OFF	ON	0 *
ON	OFF	ON	OFF	423
OFF	ON	ON	OFF	533
ON	OFF	OFF	OFF	633
OFF	ON	OFF	OFF	933
OFF	OFF	ON	OFF	1233

JUMPER JP9 (A - B)	JUMPER JP9 (B - C)	INDEX WIDTH SELECTION
ON		3 microsec *
	ON	70 microsec

JUMPER JP30	ENABLE ESDI PROGRAMMABLE SECTOR SIZE
OFF	ESDI Programmable Sector Size disabled (only hard sector mode)
ON	ESDI Programmable Sector Size enabled (only hard sector mode) *

JUMPER JP31	SECTORISATION
OFF	Hard sector mode*
ON	Soft sector mode

SECTOR LENGTH CONFIGURATION		
BYNARY VALUE FOR EACH JUMPER	JUMPERS	CONFIGURATION
1	JP16	OFF
2	JP17	OFF
4	JP18	ON
8	JP19	ON
16	JP20	ON
32	JP21	OFF
64	JP22	ON
128	JP23	OFF
256	JP24	OFF
512	JP25	ON
1024	JP26	OFF
2048	JP27	OFF
4096	JP28	OFF
8191	JP29	OFF

Note: *The configuration of jumpers JP16-29 is set to 53 sectors per track, 592 bytes/sectors not formatted.*

JUMPER JP37	PLO SYNC FIELD LENGTH SELECTION
OFF	Length of PLO SYNC FIELD - 14 byte *
ON	Length of PLO SYNC FIELD - 24 byte

The following jumpers are set in production and must not be modified.

JUMPERS	CONFIGURATION	DESCRIPTION
JP1 (A - B)	ON	Encoded written data: TTL
JP2	ON	Margin test phase: clock level ECL. Output = pin 18; Input = pin 19
JP3	ON	Margin test phase: data level ECL. Output = pin 20; Input = pin 21
JP4	ON	Code 2,7
JP5	ON	Transfer speed 15 Mbit/sec
JP10	ON	Reserved
JP15	OFF	Not used
JP32 JP33 JP34 JP35	ON ON ON OFF	Recording head configuration: 15
JP36		Reserved
JP38 JP39		Not used
JP40		Jumper test
JP41		Pin test (differential data reading signals)
JP42 (B - C)	ON	Reserved
JP43	ON	ROM disabling output test on a board

TERMINATORS RN13 AND RN14

Terminators RN13 and RN14 must only be on the last drive in the HDU chain. They must be removed from all the other HDUs installed in the system. If there is only one drive the terminators must be present.

Note: *The HDU XT8760E, on M380/XP9, can only be installed if it is connected to controller GO535.*

■