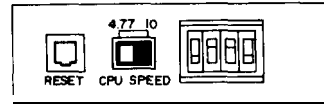## Computer Specifications

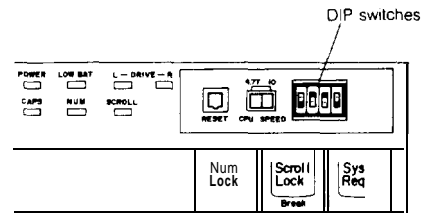|	
CPU:	NEC V30 **dual-speed** microprocessor, **4.77 or 10 MHz** switch **selectable** clock speeds. 20-bit address bus and 16-bit data bus
RAM:	640KB on main system board
ROM:	16KB, in two sockets
Floppy Disk Controller:	Supports two internal 35 (720KB) drives and one external 5 25" (360KB) drive
Expansion Slots:	Two expansion **slots** (proprietary)
Speaker:	Internal. programmable
Clock/Calendar RAM:	64 Bytes of CMOS RAM for real-time clock. calendar, and system configuration with battery backup
Keyboard:	Proprietary, full-function, 85 keys, separate numeric/cursor pad
Power:	NiCad rechargeable battery and standard 1101220 AC **adaptor**
Video Controller and Screen:	Supertwist or supertwist backlit LCD, external CGA monitor port optional
Mass storage:	
Standard:	Two. 3.5 half-height floppy disk drives; 720KB storage capacity
Standard:	3.5" half-height floppy disk drive and 20MB hard disk drive
Interfaces:	
Standard:	Centronics*-compatible parallel port
Standard:	RS-232C compatible serial port
Standard:	5 25 floppy disk drive port
Standard:	External CGA port
Environmental Conditions:	
Temperature	Operating Range 41° to 90°F (5° to 35°C) Storage Range −4° to 122°F **(-20"** to 60°C)
Humidity:	Operating Range 20% to 60% non-condensing storage Range 10% to 90% non-condensing
Physical Dimensions:	Width −13 6 in Depth -12 2 in Height — 3 1 in Weight— 12 6 lbs (Dual floppy disk drive configuration)

Display Options:	**Supertwist LCD**	**Supertwist Backlit LCD**
Screen Type:	Reflective	Transmissive
LCD **Color:**	Yellow	Blue
Size (Active Area):	9.5' × **4 1**	**95'** × **41**
Aspect Ratio:	1:4 to 1	1:4 to 1
Graphics Resolution:	**640 × 200**	**640 × 200**
Character Display:	80 × 25	80 × 25
Selectable View Angle/**Inverse** Video:	Yes	Yes
Adjustable Brightness:	NO	Yes
Power Saver Feature:	NO	Yes

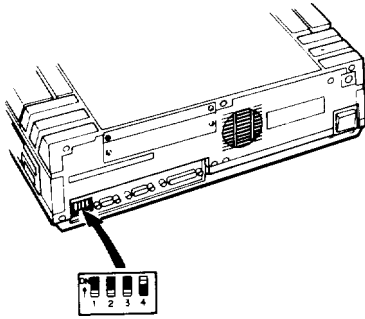|	
Equity LT Options:	Internal 30011200 baud modem
	13 CGA color display (640 × 200 dots)
	Carrying case
	Cigarette lighter adaptor
	Screen displays
	Supertwist LCD display
	Supertwist Backlit LCD display

Switch Settings

The CPU SPEED switch selects between 4.77 MHz and 10 MHz. When the computer is running at 4.77 MHz, the power light is orange, and at 10 MHz, the light is green.

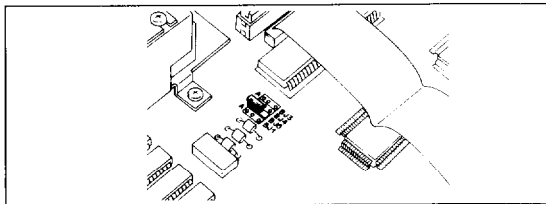The CPU SPEED switch is located above the keyboard.

LCD DIP Switch Settings

Switches				Functions
1	2	3	4	
ON				LCD Normal
OFF				LCD Reverse
	ON	ON		LCD Screen Mode 0
	ON	OFF		LCD Screen Mode 1
	OFF	ON		LCD Screen Mode 2
	OFF	OFF		LCD Screen Mode 3
			ON	Select LCD
			OFF	Select RGB color monitor

Back Panel DIP Switch Settings

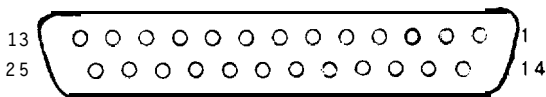| Switches				Functions
12	3	4		
ON				Use external diskette drive
OFF				Use parallel printer
	O N			External diskette drive is B
	OFF			External diskette drive is A
		O N		1 FDD
		OFF		2 FDDs
			O N	Serial port is secondary
			OFF	Serial port is primary

System Board Jumper Adjustment

Jumper 5 is used to control the LED showing drive access
for the left-hand drive. In position A, it supports a FDD.
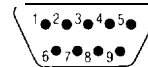In position B, it supports a HDD.
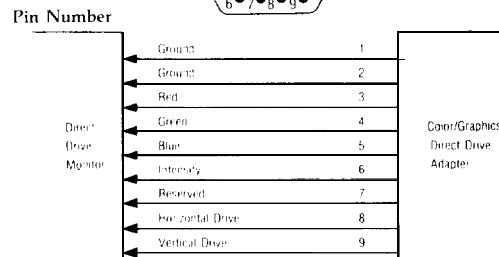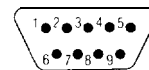
Connector Pin Assignments

Parallel Port Connector

PIN NO.	SIGNAL NAME	DIRECTION	DESCRIPTION
2	-STROBE	Ø	Strobe
3	DATA0	O	Printer Data 0
	DATA1	O	Printer Data 1
4	DATA2	Ø	Printer Data 2
5	DATA3	O	Printer Data 3
6	DATA4	O	Printer Data 4
7	DATA5		Printer Data 5
8	DATA6	Ø	Printer Data 6
9	DATA7	Ø	Printer Data 7
10	-ACK	I	Acknowledge
11	BUSY	I	Printer Busy
12	PE	I	Paper End
13	SLCT	I	Printer Select
14	-AUTOFD	I	Auto Feed
15	-ERROR	I	Printer Error
16	-INIT	I	Printer Initialize
17	-SLCTIN	I	Printer Select
18-25	GND		Ground

Serial Port Connector

PIN NO.	SIGNAL NAME	DIRECTION	DESCRIPTION
1	CRDET	I	Data Carrier Detect
2	RXDT	I	Receive Data
3	TXDT	O	Transmit Data
4	DTR	O	Data Terminal Ready
5	SG		Signal Ground
6	DSR	I	Data Set Ready
7	RTS	O	Request to send
8	CTS	I	Clear to Send
9	RI	I	Ring Indicator

Monitor Connector

PIN NO.	SIGNAL NAME	DIRECTION	DESCRIPTION
1	FG	–	Frame Ground
2	GND	–	Ground
3	ROUT	O	Video Signal (Red)
4	GOUT	O	Video Signal (Green)
5	BOUT	O	Video Signal (Blue)
6	IOUT	O	Video Signal (Intensity)
7	NC	–	No connection
8	HSYNC	O	Horizontal Sync.
9	VSYNC	O	Vertical Sync.

I/O Port Addresses

Address	Function
000 – 01F	DMA Controller
020 – 03F	Interrupt Controller
040 – 05F	Timer / Counter
080 – 07F	Programmable Peripheral Interface
080 – 09F	DMA Page Register
OAO	Non – Maskable Interrupt Mask
2F8 – 2FF	Serial Port 2
320 – 32F	Hard Disk Controller
3BC – 3BF	Parallel Port
3D0 – 3DF	Video (LCD/CRT) Controller
3F0 – 3F7	Floppy Disk Controller
3F8 -3FF	Serial Port 1
03DA	Gradation Selection
11B4 – 11B5	RTC and CMOS RAM
1188	System Status Register

DMA Channels

Channel	Function
Ø	DRAM Refresh
1	Spare
2	FDD Controller
3	HDD Controller

Hardware Interrupts

NUMBER	FUNCTION
IRQ0	Timer Output
IRQ1	Keyboard
IRQ2	Reserved
IRQ3	Serial Port 2
IRQ4	Serial Port 1
IRQ5	Hard Disk
IRQ6	Floppy Disk
IRQ7	Printer

Installation/Support Tips

Power

- - - The Equity LT AC adapter is an auto -sensing unit which adjusts automatically between 100-240 V, 50/60 Hz. Therefore, it can be used anywhere in the world without special adjustment.

- - - When using the Equity LT, equipped with the HDD and backlit LCD, on battery power, take conservation measures. These are: 1) set the backlight period option to 30 seconds, 2) set the brightness and contrast controls as low as is comfortable, 3) run at 4.77 MHz and 4) turn the HDD off, at the power switch in the rear of the drive, when the HDD is not actually in use.

- - - Periodically, discharge the battery completely. This will help to minimize the memory effect encountered with NiCad batteries. After the complete discharge, give the LT a full, 12-hour recharge. This will help to keep battery charge life as great as possible.

Video

- - - When using the Equity LT with a color monitor, as opposed to an LCD, make sure that LCD DIP switch number 4 is set OFF. If the unit is connected to both LCD and monitor, the display can be switched back and forth without rebooting.

- - - If you find the display, generated by your software package, is difficult to read, adjust LCD DIP switches 2 and 3 to find the clearest LCD Mode. There are four options and one of them should improve the display.

- - - If your software requires that you specify a display type, select CGA. If it is an option, select CGA - ONE COLOR. Some software packages have a display type called BLACK & WHITE for Laptops. If this is an available option, select it.

Software Problems

- - - When installing a copy- protected software package on the Equity LT, set the the CPU speed to 4.77 MHz. This has been found to have fewer conflicts with copy-protection. After the installation, the CPU can be switched back to the higher speed.

- - - If a software package does not appear to be compatible with the Equity LT, try switching the CPU speed to 4.77 MHz before giving up. Some software packages (e.g., PC-Talk Ill from Headlands Communications Corp.) have been found to function only at 4.77 MHz.

Information Reference List

Engineering Change Notices

EQLT-001	12/8/87	Change of Cable Set #5DE (FDD Signal Cable)
EQLT-002		Hilo-HDC Snort Potential
EQLT-003	2/10/89	Equity LT/LT Modem Insulating Sheet

Product Support Bulletins

S-0031	12/14/87	Equity Series with Word and Serial Printers
S-0036A	2/25/88	Equity LT - Common Questions and Answers
S-0055	6/14/88	Equity LT Battery Life
S-0062A	6/9/89	Equity Series Computers - ROM History

Related Documentation

A495A-AA		Equity LT Software Package. MSDOS 3.2 and GW-Basic
A806021		Equity LT Software Package MSDOS 3.3 Upgrade
M-TM-EQLT		Equity LT Technical Manual
M-PM-EQLT		Equity LT Programmer's Reference Manual
MPL-EQLT	4/21/88	Equity LT Pans List
MPL-EQLTBL	11/10/87	Equity LT LCD (Back Lit) Parts List
MPL-EQLTS	11/10/87	Equity LT LCD (Supertwist) Parts List
Y16499100300		Equity LT User's Guide and Diagnostics Manual

Technical Information Bulletins

EQLT-001	1/31/89	Equity LT/LT Modem
EQSER-004	6/12/89	Keyboard Alignment