# Instructions for Uncrating and Assembling the Lilith Computer

#### The Lilith Package

The Lilith package comes in four boxes, labeled Box 1, Box2, Box3, and Box 4. Enclosed in Box 1 is the basic machine with the following cards: MCU card. ALU card, CDP card, IFU card, MEM 64R card, MEM128R card, MEM64L card, MEM128L card, DSP card, and a WDSK card. Also enclosed in Box 1 are: a mouse, a keyboard cable, and a power cable. In Box 2 is the disk drive; in Box 3 is the software, which is in the form of floppy diskettes; and in box 4 is a keyboard. Taped to the bottom of the card cage are two disk and two Winchester drive mounting bolts.

### Uncrating the Lilith

Open Box 1, lift the machine out, and remove the plastic bag which covers the machine. Notice that the the machine is covered in the front by a black plexigalss cover. Removing this cover from the machine by sliding it upwards, you will see that the cards are all individually wrapped in plastic covers. Remove the cards and other items found inside the computer card cage, and check that you have all the cards listed above.

#### Inserting the Cards

First, place the Lilith on a table so that the Floppy Disk Unit is at the bottom. You will see that the card cage is labeled as to where these cards should be inserted. All the cards are inserted so that the component side is facing up and the solder side facing down. Take the MCU card and place it in the slot in the card cage labeled MCU (the third card slot from the top of the machine). Push the card in until it firmly connects with the connector at the back of the machine. Repeat this procedure for all the cards listed above except the Winchester Disk Controller card (WDSK). Instructions on how to install the Winchester card are given below

### Inserting the Winchester Disk Controller Card and Cables

The Winchester Disk Controller card is the only card which has critical adjustments on it, so handle it with great care. It has been pre-adjusted at MRI and was found to be fully functional. You will find the two disk cables, labeled "j7b" and "j2b", taped to the bottom of the card cage. Remove this tape and lay the cable ends out so that you can slide the Winchester Controller card in above them. Making sure that the socket pins on the solder side of the board do not tear the cables, slide the Winchester Controller card into the WDSK slot at the bottom of the card cage and press it firmly into the backplane. Next, insert the j7b cable into the socket labeled j7b so that the brown strand of the cable is to the right when you are facing the machine. Then insert the j2b cable into the socket labeled "j2b", again making sure that the brown strand of the cable is to the right.

#### Installing the Winchester

Connecting the Winchester Ribbons: Carefully take the Winchester Disk Drive out of Box 2. You will notice that at the back of the Winchester on the bottom, where the control logic for the disk drive is located, there are two card edge connectors and a power connector. The power connector is labeled "j3". There is also a card edge connector labeled "j1" and a card edge connector labeled "j2". First, plug the power cable, labeled "j3" into the power socket on the disk drive. Plug this connector in firmly. Next take the j1 cable--this is the same cable that you plugged into the j7b socket on the Winchester Disk Controller card--and plug it into the card edge connector so that the brown strand is away from the power connector and the yellow strand is be adjacent to it. Take the j2 cable--this is the cable which was plugged into the j2 socket on the Winchester Controller card--and plug it into the card edge connector labeled "j2" on the disk drive so that the brown strand is away from the power connector and the black strand is closer to it.

Checking the Disk Drive Select Switch: Now that the two signal cables and the one power cable is plugged into the disk drive, inspect the dip switch on the bottom of the disk drive to make sure that the disk drive is selected as Disk 2. The dipswitch should have a switch number 2 toward the open side of the dipswitch; all other switches should be closed.

Inserting the Disk Drive: With all the connections made on the disk drive, you may carefully slide the disk drive into the opening provided on the Lilith computer. This opening is tight, so you will have to work it in carefully, making sure that the disk drive is positioned so that the red light at the front of the disk drive is located at the bottom of the machine. The disk drive is held in place by two bolts located at the bottom of the disk drive. On the bottom of the Lilith computer are two matching holes through which the bolts are inserted. The two bolts will be found taped to the bottom of the card cage, where the j2 and j7 ribbons were taped.

### Installing the Keyboard

The keyboard installation consists of a keyboard, mouse, and mouse pad. Their installation is described below.

Connecting the Keyboard: The keyboard cable was located in one of the cardboard boxes that you removed from the card cage when unpacking the Lilith. The keyboard cable is marked "KBD" on one end. Plug this end into the RS232 type connector, marked "KBD", located at the back of the Lilith. With the keyboard cable attached to the back of the Lilith, take the other end and plug it into the 25-pin connector socket at the back of the keyboard.

Connecting the Mouse: Contained in the same box as the keyboard cable is the mouse. Remove the tape which holds the metal ball in place at the bottom of the mouse. Plug the cable attached to the mouse into the the 9-pin connector located next to the white reset switch at the back of the keyboard.

The Mouse Pad: Also sent with the Lilith package is a geeen and white vinyl mouse pad. For best operation of the mouse, keep it on the mouse pad. The metal ball underneath the mouse rolls more smoothly on the vinyl surface than on a desk top.

With the keyboard cable connected to the keyboard and Lilith computer, and with the mouse connected to the keyboard, the keyboard installation is now complete.

### Connecting the Video Monitor

The video cable is a coaxial cable which has a DIN connector on one end and an RCA jack on the other. The DIN connector, which has a grey sheath over it, is plugged into the rightmost socket (as you face the back of the Lilith) on the back of the Lilith. It only plugs in one way. Press this cable firmly into the socket, and plug the other end into the video monitor. If the Monitor requires a 220v input, it can be plugged into the 220v output socket located next to the red power reset button at the back of the computer.

### Connecting 220v Power Cable to the Lilith Computer

You should have found a black power cable when unpacking the Lilith. This cable has a three-pronged connector on one end and a female connector on the other end. The female connector plugs into the back of the computer adjacent to the fuse holder. The other end plugs into a 220 POWER SOURCE ONLY. After connecting the power cable, press the red power reset button at the back and to the left of the computer to power it up.

## Booting the Lilith

Instructions for booting the machine are found in the packet labeled "Things a Lilith User Might Like to Know".

THIS DOCUMENT HAS USEFUL DATA ON RIBBON CONNECTIONS FOR THE WINCHESTER DRIVE.