

4. POWER DOWN

You should *not* power down the processor or the memories by pulling plugs or throwing switches since this sudden shut down can damage components. Only resort to this drastic action in an emergency (e.g., fire or when the Nova/Alto is broken so that the program for powering down cannot be executed). If you *do* have to turn power off manually, try to turn all four switches for each particular memory cabinet off as sumultaneously as possible.

On *Maxc2*, the front panel switches for the disk drives should be turned off before powering down the microprocessor. On *Maxc1*, this is desirable, but leaving the disks on hasn't been observed to cause problems.

After powering down the disks, then shut off the microprocessor and memories as follows:

On *Maxc1*, power shut down is accomplished by issuing the Nova DOS command:

POWER OFF <cr>

NOTE: At present the processor power on Maxc1 cannot be turned ON or OFF under program control. Throw the main breaker on the front panel.

On *Maxc2*, power is turned off by running Midas and selecting the "Power-Off" and "Both" menu items. Temporarily (as of 10/22/79), Midas cannot turn off the Port power supply on *Maxc2*. To turn it on and off you must throw the front-panel switch labelled "Port on-off."

When you power off, the two red lights on the processor and the four red lights on each memory will shut off. The fans will continue to run and should be left on for at least 15 minutes. You may then turn them off by pulling out their plugs in the backs of the cabinets, or by turning off the appropriate circuit breakers in the back room.

It is possible to turn the processor and memories on and off independently. If only the processor needs to be turned off, it is best to leave the memories on so as to avoid shortening the life of the storage chips.

On *Maxc1*, type "POWER OFF/P" to turn off only the processor, and "POWER ON/P" to turn it on. Similarly, "POWER OFF/M" and "POWER ON/M" turn off and on only the memories. On *Maxc2*, this choice may be made by means of the subsidiary menus for the "Power-On" and "Power-Off" commands.

To totally turn off disks, turn off the front panel switches first. Do not turn off AC power (in back) until the pack has stopped turning, else the drive may stop with the heads still extended! Unless you are going to work on the disk drive, powering off the AC power in back is not required.

If the Nova/Alto won't run, then you will have to power Maxc down manually. It is very important to turn off all Maxc power supplies before turning off the Alto power. To do this, first turn off the Maxc disk drives via the switches on the front panel. Then turn off the four power supply switches on each memory cabinet. Turn the four switches on each cabinet off *as nearly simultaneously as you can* to avoid possible problems in the power safety circuitry. *After* you have powered down the memory cabinets, turn off the processor and port power supplies.

Finally, turn off the Alto disk, and when it stops the Alto processor. If the processor is going to be powered off for a long time, you should also power down the Alto display.

For most repairs to the Maxc processor, it is not necessary to power down the Alto. However, if you are going to disturb the PMAINT, KMEMI, or PMEMI cards in the processor, it is imperative that you power down the Alto (after powering down Maxc). It should be ok to leave the Alto running when other processor cards are pulled.