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Macintosh II, IIx, & IIfx: Startup sequence

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TOPIC ---

What happens exactly when I turn on my Macintosh II by pressing the Power On
key on the keyboard?

DISCUSSION --

The Macintosh II, IIx, and IIfx are turned on via the Power On key, which
is located above the numeric row of keys on Apple Desktop Bus Extended
keyboards.

When this key is pressed on an ADB keyboard connected to one of these
Macintosh computers, it grounds pin 2 (the Power On signal) on the Apple
Desktop Bus port. This line is physically connected through a resistor to
the lithium batteries found on the logic board.

The batteries charge a capacitor which toggles the power supply to turn on
(assuming AC power is present). Power-up continues with a system check
before control is passed to the Startup Manager in the ROM.

After power is supplied to the system, the Versatile Interface Adapters
and IWM (SWIM in the IIfx's case) are initialized, memory is tested, and
RAM and ROM are mapped to permanent locations. A video card is located,
and video is initialized. The Start Manager is then ready to check for a
startup device.

If a bootable disk is present in an internal floppy drive, that disk is
used to start the system. If both floppy drives are empty, parameter RAM
is checked for the location of the designated startup device, and that
device is searched for system startup blocks. Should that be unsuccessful,
SCSI devices are checked followed by a search for intelligent NuBus cards.

Once a device with boot block information has been found, the blocks are read and the code is executed. At that point, control passes from the Start Manager to the start application code.

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