1-11. THE 1720A INSTRUMENT CONTROLLER

1-12. The Fluke 1720A Instrument Controller was designed for the task of building and controlling instrument systems. Because it has a removable Programmer Keyboard, a Touch-Sensitive Display for operator interaction, and a rack-mountable package, it can be used on the programmer's desk or rack mounted in an industrial instrumentation system.

1-13. The 1720A includes a 16-bit microcomputer and is supplied with a System Disk containing Fluke-designed system software, utility programs, and one or more programming languages. Dual IEEE-488-1978 standard ports allow the 1720A to control up to 28 compatible instruments or peripheral devices. In addition, two RS-232-C ports permit the 1720A to interface with a wide variety of general purpose peripherals and data communications equipment.

1-14. The 1720A is not a business computer or calculator that has been adapted to the job of an industrial controller. Instead, the 1720A is a special purpose machine that has a variety of standard features specifically designed for controlling industrial instruments. These standard features include:

- A rack-mount package that occupies a minimum of valuable rack space.
- A full-width touch-sensitive display that allows the design of operator control interfaces that are flexible, simple to use, and specifically adapted to the process.
- A detachable, ASCII keyboard that allows separation of programming functions from daily operation.
- A two-port IEEE-488-1978 interface that allows the 1720A to function as two controllers with up to 14 instruments in each system.
- A software development system that includes an operating system, a monitor, utility programs, and one or more programming languages with an editor and other supporting software tools.
- A double-density floppy disk drive that allows storage of programs and files on a permanent media. The floppy disks provided with the 1720A contain the standard software development programs as well as a complete set of diagnostic software for isolation of failures to the module level.
- A soft-loaded software architecture that allows field upgrading of software as new capabilities and languages are developed.
- A 60K byte memory module that provides the main memory area for program execution, file transfer, and the execution area for all system software.
- An optional electronic disk memory module, E-Disk™, that provides an additional 128K or 256K bytes of storage. It is intended for use as a fast access operation media. Internal battery backup can sustain the contents of the electronic disk for a short time when AC power is removed. This backup time may be extended indefinitely by using an external battery. (E-Disk is a trademark of the John Fluke Mfg. Co., Inc.)

- Two independent software-controlled RS-232-C ports that provide serial access to a wide variety of general-purpose peripherals and data communications equipment. Software control of the ports eliminates mechanical switches for baud rate selection, and gives flexibility in protocol.

- A real-time clock that may be used as a determining program variable during program execution. It also allows application programs to date- and time- stamp data files as they are collected.