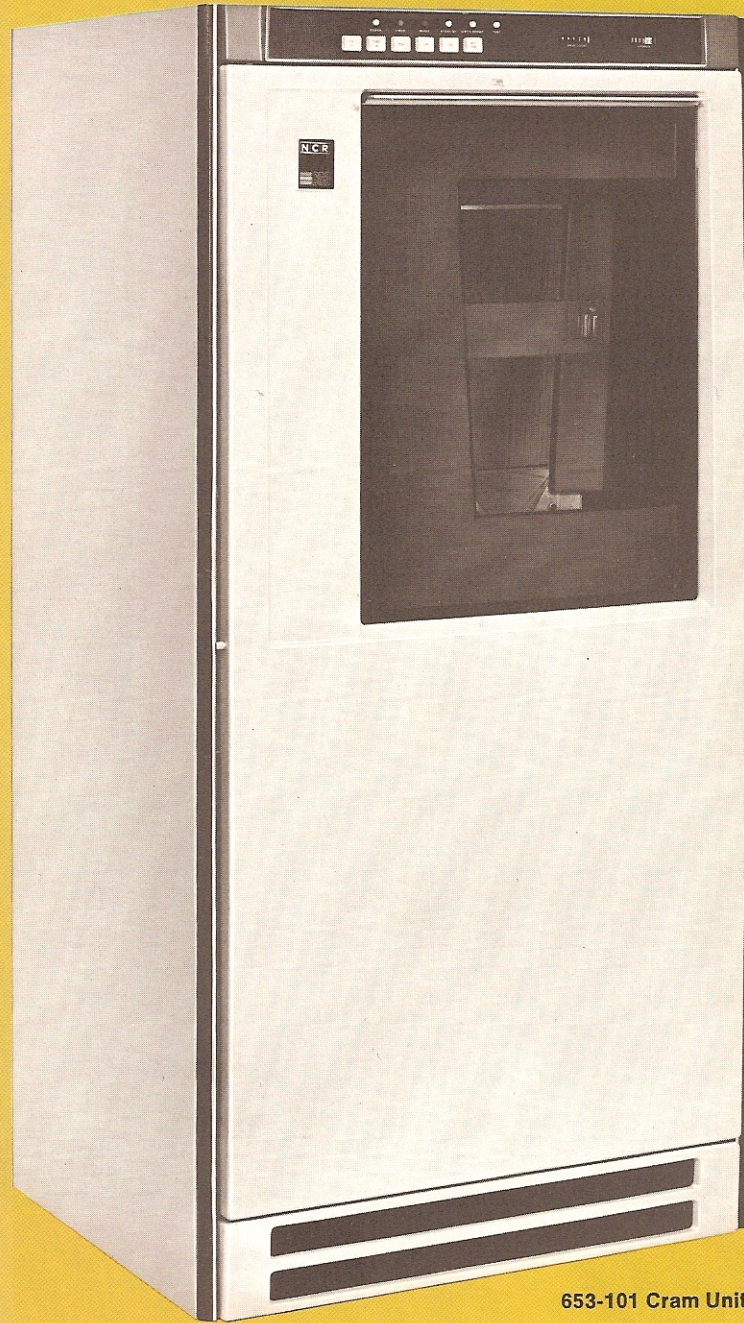
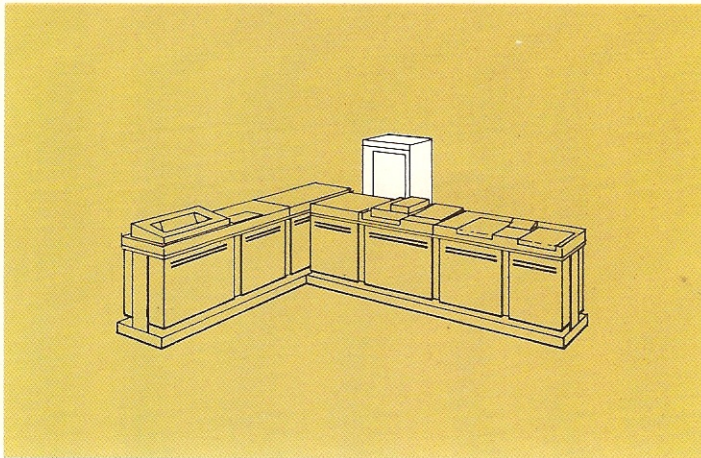


# CRAM

card random access memory



653-101 Cram Unit



The fourth generation card random access memory (CRAM) units were developed to meet the requirements of real-time processing. Some outstanding features of CRAM include:

- Rapid random access to large centralized files.
- Low cost per character of storage.
- Removable file media for historical and security purposes.
- Sequential processing for producing copies and generating reports.

Each CRAM unit stores 124 million bytes of information; one controller operates up to 8 CRAM units. The application requirements determine the number of controllers that the system can handle.

NCR CRAM has the right combination of capacity—speed, cost, reliability—for business mass random-access files.

#### 653-101 CRAM UNIT

- Common trunk peripheral through use of 623-201 controller
- Data transfer rate 71,250 characters per second
- Recording density 1500 bits per inch
- Method of recording: phase modulated
- Drop time 90-125 milliseconds
- Average reaccess time 23 milliseconds
- 144 tracks per card
- 384 cards per cartridge
- Capacity: 124 million bytes
- 36 track heads—movable to 4 positions
- Head movement time less than 1 drum revolution (approx. 40 milliseconds)
- Head positioning shared with drop, return and load shared with drop
- Programmable functions: Select, card drop, card release, read write, drop read, drop write
- Error check: Read after write
- Data transfer and programmable functions under control of 623-201 controller
- Maximum of 8 units per controller