IBM 3660

IBM 3660
Supermarket System

3660 Supermarket System Description

The IBM 3660 Supermarket System is designed to meet the needs of the supermarket industry in the areas of customer service, sales efficiency, and transaction accounting.

The 3660 Supermarket System consists of the following machines:

- 3651 Store Controller Model 60 - Supermarket
- 3663 Supermarket Terminal
  Model 1 - Station and Control
  Model 2 - Station Only
- 3666 Checkout Scanner
- 3669 Store Communications Unit
  Model 1 - Switched Line Unit
- OEM Attachment Adapters for change dispenser, stamp dispenser, and scale are optionally available.

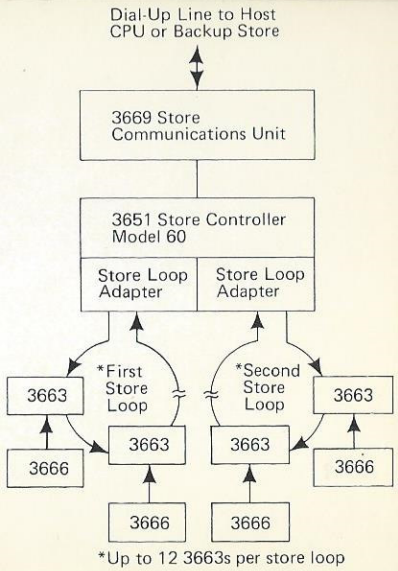
The system devices are located throughout the supermarket. The 3651 Model 60 would normally be placed in the store manager's office. 3663 Supermarket Terminals and 3666 Checkout Scanners would be placed at each of the checkout lanes.

The 3651 Model 60 communicates with the host CPU via a 3669 Store Communications Unit. The 3666 Checkout Scanner attaches to the 3663 Supermarket Terminal. The 3663 terminals communicate with the 3651 Model 60 via one of two standard store loops.

The store loop provides a serial method of connecting terminals with several maintenance features.

If a terminal detects discontinuity in the store loop, it goes through a self-diagnosis routine, displays an error code to the operator, and energizes bypass circuitry to permit the rest of the store loop to function. If the store loop itself fails, the terminal downstream of the failure transmits a code to the control unit, indicating the approximate point of failure. Errors on the terminals and the store loop are recorded on a disk at the 3651 Model 60.

If the 3651 Model 60 is inoperative, the store loop may be linked to a "sister" store's 3651 Model 60 via the 3669 and a communications line for backup operation.



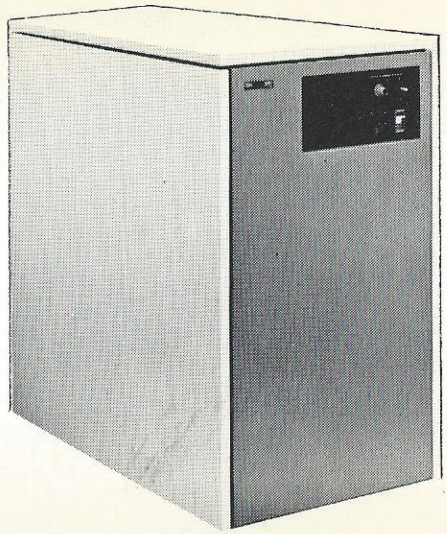
*Up to 12 3663s per store loop

3651 Store Controller Model 60 Description

The 3651 Store Controller Model 60 directs the flow of data throughout the store. Communication with the host CPU is via the 3669 Store Communications Unit and a communications line. Communication with the store's terminals is via store loop adapters. There are two store loops per 3651 Model 60. Each of these adapters is capable of handling up to twelve 3663 stations.

3651 Serviceability/Maintenance Features

- Maintenance Analysis Procedures (MAPs) designed to isolate to the failing FRU with a high degree of effectiveness
- Problem Determination Procedures (PDPs) assist the customer in isolating failures
- Hardware Bring Up Tests
- Online Diagnostics
- Error Logging
- CE/Operator Panel
- Automatic Diagnosis of Store Loop Failures



3663 Supermarket Terminal Description

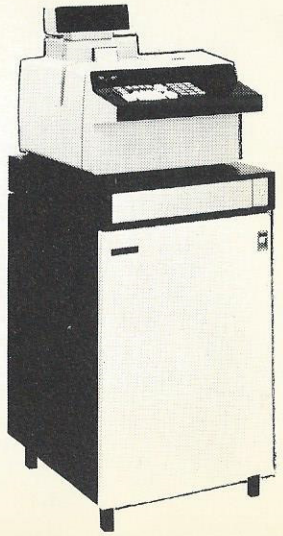
The IBM 3663 Supermarket Terminal Model 1 consists of a keyboard, printer, display, cash drawer, and a control segment. The 3663 Model 2 consists of a keyboard, printer, display, and cash drawer. The 3663 Model 2 attaches to the 3663 Model 1 for logic and power support. Connection to the 3651 Store Controller Model 1 is via the store loop.

The 3663 is packaged so that the various I/O units may be arranged separately (distributed) or as a single assembly (integrated) as shown in the photograph.

The 3663 control segment may contain optional adapters for connecting stamp dispensers, coin dispensers, scales, the 3666 Checkout Scanner, and a document insert feature adding a third print station to the printer.

3663 Serviceability/Maintenance Features

- Maintenance Analysis Procedures (MAPs) designed to isolate to the failing FRU with a high degree of effectiveness
- Error logging of detected errors at the store controller
- Self-diagnosis and automatic display of error codes during power-on sequence
- Problem Determination Procedures (PDPs) — operator oriented
- Online diagnostics



3663 Supermarket Terminal Model 1

3666 Checkout Scanner Description

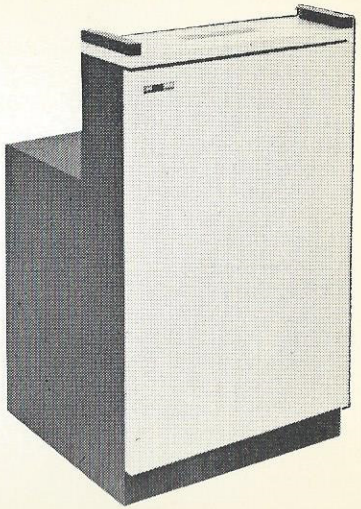
The IBM 3666 Checkout Scanner is an optical recognition device designed to increase the throughput at checkout lanes.

Supermarket merchandise will have an identification label preprinted with a bar code symbol, readable by the 3666, and numbers for manual interpretation of the bar code. The symbol is referred to as the Universal Product Code symbol and has been adopted by the supermarket industry.

Label recognition is accomplished with a low power laser beam that scans each label, projecting light on the bar code and collecting the reflected images. The information is then transmitted to the 3651 Store Controller Model 60 through the 3663. The 3666 eliminates the need for most of the manual key entry of item sales information.

3666 Serviceability/Maintenance Features

- Manual backup from keyboard
- Maintenance Analysis Procedures (MAPs) designed to isolate to the failing FRU with a high degree of effectiveness
- Problem Determination Procedures (PDPs) — customer oriented
- Online diagnostics



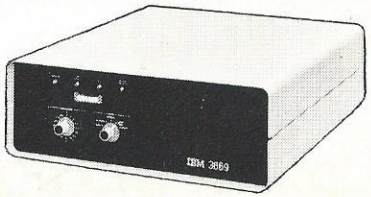
3669 Store Communications Unit Description

The IBM 3669 Store Communications Unit Model 1 is a standalone device that allows attachment to the host CPU at 2400 bps via switched public network.

It may also be used to provide backup by allowing a store's terminals to be controlled by a remote 3651 Model 60 when the primary 3651 Model 60 is not available for operation.

3669 Serviceability/Maintenance Features

- Maintenance Analysis Procedures (MAPs) designed to isolate to the failing FRU with a high degree of effectiveness
- Automatic wrap tests resident in the 3651 Model 60
- Manual wrap tests
- Signal quality meter
- Indicator panel



Photos are of design models

System Program Support

The 3660 Supermarket System will be host program supported by DOS/VS or OS/VS and the BTAM access method.

3660 Supermarket System unique support will be provided for via the Subsystem Support Services.

The Subsystem Support Services operate in the host System/370 processor and provide facilities for:

- Creating the characteristic 3660 Supermarket System functions.
- Transmission of the 3660 Supermarket System functions to the 3651 Model 60.
- Design corrections of the 3660 Supermarket System functions.

The 3660 Supermarket System programs will be supported by a PSR at the host location. Where applicable, this support is enhanced by Remote Maintenance Support which includes Data Link Software (DLS). DLS allows problems to be remotely analyzed.

System Serviceability

- Problem Determination Procedures (PDPs) — customer oriented
- Maintenance Analysis Procedures (MAPs)
- Online Diagnostics
- Communications devices wrap tests
- General logic probe
- CE indicator card
- No scheduled PM

System Reliability

- Minimum moving parts
- Non-mechanical keyboard
- Soft error recovery

System Technologies

- Field Effect Transistor (FET)
- Transistor Transistor Logic (TTL)

FE Career Path

The 3660 Supermarket System components are "Data Recording" FE Career Path products.

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