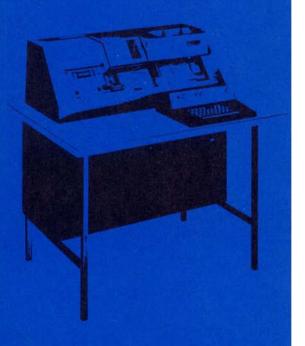
IBM Customer Engineering



# Introducing the 29 Card Punch and 59 Card Verifier

The IBM 29 Card Punch and IBM 59 Card Verifier are the key entry machines to support the IBM System/360. These machines process the expanded character set associated with the new programming language. A modern appearance, increased throughput, increased operator acceptance, increased servicability, and a more quiet operation, are a result of; new covers, new internal circuitry, and new operating features.

# **Highlights**

- Expanded Character Set: Allows punching, printing, and verifying of additional codes required for IBM System/360.
- New Covers: Enhance appearance and reduce noise.
- Two Separate Program Levels: Allow multiple changes between program levels within a card as well as at the start of a card.
- Clear Key: Causes multiple register and release cycles without feeding until the card transport is clear of all cards.
- Left-Zero Function: Provides automatic punching and verification of zeros to the

left of significant digits under program control.

- Erasability: In conjunction with left-zero function, allows the operator to correct the information in a left-zero field before it is punched in the card.
- Printing: Available on the IBM 29, as a pluggable feature, through the interchange of base units.
- High Speed Verification: Allows auto verification of a card at 80 column per second under program control.
- Automatic Verification of Blank Columns: Possible at auto verify speed under key control.

## **Technology**

### IBM 29 and IBM 59

- Reed Relays and Printed Circuit Techniques: Replace wire contact relays and tubes.
- Major Units are Pluggable: An aid for feature installation and servicability. IBM 29
- Print Unit: Capable of printing entire 64 character set.
- Punch Unit: Capable of punching more than three holes per column.

### IBM 59

- Optical Sensing: Eliminates the mechanical verifier drive and pin-sense assemblies. This will significantly lower the machine maintenance requirements by reducing the number of adjustments.
- A Photoemitter: Replaces the program cam contacts and gates the impulses through the starwheel contacts to improve reliability.

### **CE Features**

#### IBM 29

 Switch: Single-cycle (on automatic left zero machine).

#### IBM 59

· Indicator Lights: Display functional in-

formation, such as data comparison and operation being performed.

• Switches: Single-cycle Error-retention Motor-disable

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