The primary input/output for the LGP-21 is the Model 121 Tape Typewriter. In addition to a standard typewriter keyboard, the unit has a paper-tape punch, paper-tape reader, and various levers for controlling their operations.
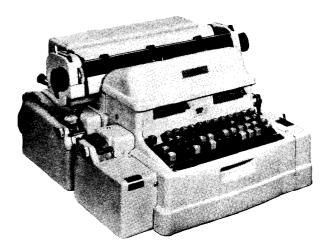

FIGURE B.l Model 121 Tape Typewriter

POWER ON-OFF

This switch, in the lower right-hand corner adjacent to the keyboard, sets the typewriter so that power will be turned ON or OFF when the, computer power is ON. The carriage is interlocked and should not be moved when power is OFF.

START COMP

When the computer has selected the typewriter for input, the START COMP lever terminates input and allows the computer to proceed to the next instruction. The START COMP lever will stop the paper-tape reader whenever it is running on-line or off-line. The functions of the START COMP and the STOP READ levers are identical.

MANUAL INPUT

If this lever is down and the typewriter is selected for input, information can be transmitted to the computer from the keyboard only. If this lever is raised, information is transmitted from the tape reader when the typewriter is selected for input.

CODE DELETE

Operative only when the PUNCH ON lever is depressed, this lever is used to delete an error in the tape by punching holes in all six channels. One delete code is punched each time this lever is depressed. However, by holding down TAPE FEED and CODE DELETE at the same time, the operator can produce a series of code deletes. If, while the punch is ON, a tape interlock occurs because of a tight tape condition, depressing the CODE DELETE lever will release the typewriter.

TAPE FEED

This lever feeds tape into the punch, which then punches only sprocket (feed) holes. TAPE FEED is operative only when PUNCH ON is depressed.

MANUAL INPUT LIGHT

This light is on when the typewriter is selected for input to the computer and the MANUAL INPUT lever is down.

PUNCH ON

The PUNCH ON lever activates the tape punch, allowing any character typed from the keyboard or read from the tape reader to be punched. TAPE FEED and CODE DELETE are operative only when PUNCH ON is depressed. Raising the lever turns the punch OFF.

STOP READ

This lever is used interchangeably with START COMP.

START READ

This lever starts the tape reader providing the MANUAL INPUT lever is UP; otherwise, it turns ON the Manual Input light. Reading will continue until a Conditional Stop code is read, providing the COND STOP lever is raised, or until the STOP READ, START COMP, or MANUAL INPUT lever is depressed.

COND STOP

This lever, when depressed, allows the tape reader to read without being stopped by the Conditional Stop codes. This lever must be raised during input to the computer from the tape reader.

PAPER GUIDE

Located just to the rear of the platen, this guide should be adjusted horizontally so that it touches the left edge of the paper form.

TAB STOP

Under the cover to which the paper guide is attached is the tab rack, numbered 8 through 136 in increments of 4. A tab stop is a metal positioner that can be inserted in any notch along the tab rack. When the TAB key is depressed, a Tab code read from tape, or a tab output from the computer, the carriage will move to the next position containing a tab stop.

LEFT MARGIN STOP

In front of the tab rack is the margin rack, numbered 0 through 68 in increments of 4. The margin stop is the sliding assembly mounted on the margin rack. To move this assembly, press down on its center and slide it along the rack. The right end of the stop is the indicator. The setting of the margin stop determines the left margin position.

AUTOMATIC CARRIAGE RETURN

Behind the tab rack is a carriage return plate. An automatic carriage return positioner can be placed anywhere along the plate. An automatic return occurs when the carriage reaches this return positioner as the result of a tab jump; i.e., because the Tab key is depressed, a Tab code is read from tape, or the computer outputs a Tab code. If this positioner is reached as a result of single-character steps, the typewriter may jam. This condition may be cleared by striking the Carriage Return Key manually. However, any input or output that occurred at the time of the jamming may be invalid.

PAPER SCALE

The paper scale is printed on the metal shield in front of the platen. By viewing the paper scale through the type guide, one can determine the exact position of the carriage and where characters will print.

TYPE GUIDE

This guide indicates the position of the carriage and the location where the characters will print.

WRITING LINE

The bottom of the typed line will be exactly above the top edge of the writing line finder. It is used to align a previously typed page in the platen for additional typing.

PAPER RELEASE

The paper release is located at the top left-hand corner of the movable carriage assembly. When this lever is pulled forward, the paper can be straightened or removed.

LINE SPACER

To the right of the paper release lever is a lever which permits selection of single-, one and one-half-, or double-spacing between lines.

PLATEN

The platen is a roller-type device which holds the paper against which the type bars strike.

CARRIAGE RELEASE (Right and Left)

There are two Carriage Release buttons, one located to the right and one to the left of the platen. When either or both are held down, the entire carriage assembly can be freely moved. The carriage should not be moved when power is OFF.

PLATEN KNOBS (Right and Left)

The platen knobs, located at each end of the platen, are used for turning the platen forward or backward.

PLATEN VARIABLE

When this button, located in the center of the left platen knob, is depressed, the platen is released to allow the operator to position the paper at other than standard line spacing. Releasing the button restores standard line spacing.

MARGIN RELEASE

This lever, which-is located behind the left platen knob, can be raised to move the carriage to the left of the margin stop.

RIBBON POSITIONER

The ribbon position lever, located on the right side of the typewriter below the carriage, positions the ribbon for typing through its upper or lower part or for typing stencils.

SPACE

This bar moves the carriage forward one character space.

COND STOP (')

This key is used to punch a Conditional Stop code (') into paper tape. When sensed by the tape reader, this code stops the reader and sends a start signal to the computer.

TAB

This key moves the carriage to the next established tab position.

COLOR SHIFT

This key shifts and locks the ribbon for typing through its upper or lower half.

CAR RET

This key returns the carriage to the left margin and spaces the paper to the next typing line.

BACK SPACE

This key moves the carriage back one character space each time it is depressed.

LOWER CASE, UPPER CASE

These keys lock the keyboard in position for typing lower or upper case characters. LOWER and UPPER CASE keys are provided on both sides of the keyboard.

TAPE INTERLOCK

The punch contains a tape interlock that stops the device if the tape breaks or if the supply is exhausted.

FEED KNOBS (Reader and Punch)

The reader and punch feed knobs are located to the left of the read and punch heads, respectively. These knobs can be used to manually move tape forward or backward.