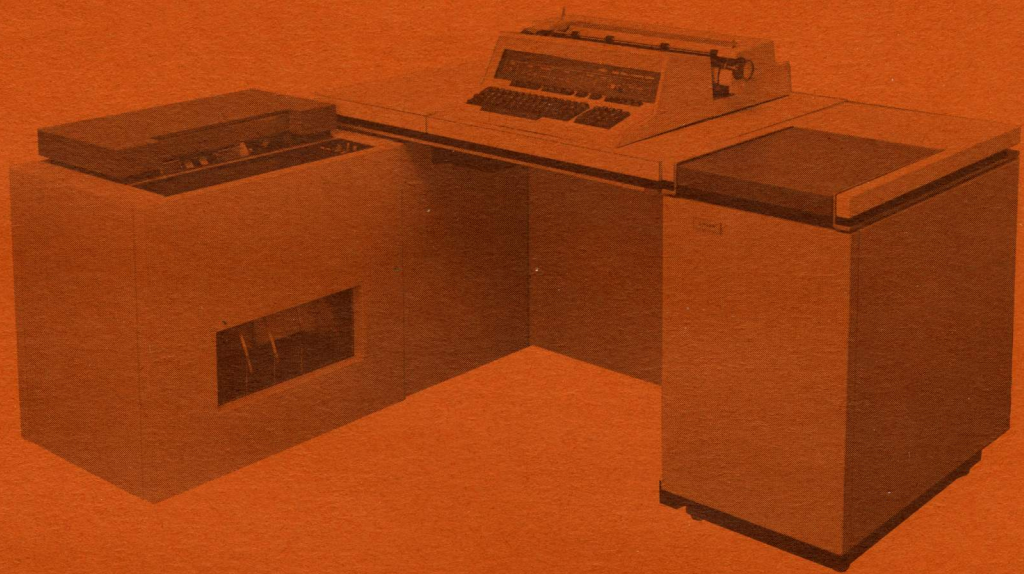


OPERATOR INSTRUCTIONS

5800 BILLING/ACCOUNTING SYSTEM



SINGER
FRIDEN DIVISION

OPERATOR INSTRUCTIONS

5800 BILLING/ACCOUNTING
SYSTEM

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SINGER
FRIDEN DIVISION

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PREFACE

This manual describes all procedures necessary for an operator to operate the 5800 Series Billing/Accounting System. The meaning and function of all indicator lights and switches are described together with corrective actions the operator can take if an error condition is encountered.

The manual is divided into two parts: the first describes the workstation and the second describes the Magnetic Stripe Ledger Processor.

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WORKSTATION

INTRODUCTION

The workstation of the 5800 Billing/Accounting System is a freestanding, desk-type unit designed to provide maximum convenience for the operator. The workstation houses the alphanumeric and numeric keyboards, the printer, the control panel, a paper tape/edge punched card reader, and, optionally, a paper tape/edge punched card punch. Working space is provided on the top of the workstation to the left and right of the printer.

POWER SWITCH See Figure 1.

The POWER switch is the master control switch for the entire system, including all auxiliary units which may be attached, such as the Magnetic Stripe Ledger Processor (5819).

The switch has three positions: up, down, and neutral. After being operated the switch always returns to the neutral position.

To turn the power on, push the switch up and release it. The POWER indicator will light and the alphanumeric keyboard will be unlocked. Additionally, the SELECT SEQUENCE, ALPHA ACTIVE, and RUN indicators will light.

To turn the power off, push the switch down and release it. Five seconds must elapse from the time the system is turned off before it can be turned on again.

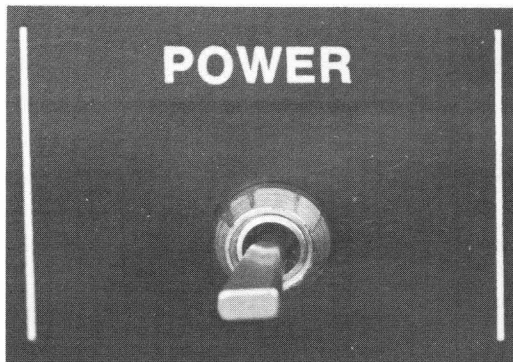


Figure 1. POWER Switch.

ALPHANUMERIC KEYBOARD See Figure 2.

The alphanumeric keyboard is similar to a conventional typewriter keyboard and is designed for fast typing. Note the following items about the keyboard:

CONT Key

This is the Control key and is used to generate special codes depending upon the program being run.

END Key

This key is used to terminate the typing of descriptive information depending upon the program being run.

SHIFT Keys

These keys are used to generate codes, depending on the program being run. The printer prints only capital letters.

TAB Key

This key is used to tabulate from column to column.

BACKSPACE Key

This key backs the carriage one position at a time.

NEW LINE Key

This key returns to carriage to the left margin and advances the paper one line.

To prevent accidental typing during some operations, the computer program within the system will at times lock the keyboard temporarily.



Figure 2. Alphanumeric Keyboard.

NUMERIC KEYBOARD See Figure 3.

The numeric keyboard allows the entry of numbers into the system. The keyboard is similiar to that of a conventional ten-key adding machine.

The keyboard has:

- 10 numeric keys (0 thru 9)
- A decimal point key
- A plus key
- A minus key
- A C (CLEAR) key

A numeric entry can have a maximum capacity of 14 digits *plus* the decimal point and a plus or minus sign. Regardless of the number of digits used, the last numeric entry must be either a plus or a minus.

The keyboard locks and the OVERFLOW indicator lights if an attempt is made to enter more than the maximum number of digits. If this happens, touch the C key and start over.

The numeric keyboard is locked except when the program being used calls for the entry of numeric data.



Figure 3. Numeric Keyboard.

PUNCH CONTROLS See Figure 4.

FEED Switch

The FEED switch is used to feed paper tape or edge punched cards into and through the paper tape/edge card punch. Paper tape is fed into the punch as long as the switch is held down. When edge punch cards are used, depressing and releasing the switch ejects the card already in the punch and automatically feeds and positions the next card.

DELETE Switch

The DELETE switch causes a delete code to be punched each time the switch is pressed.

OFF LINE Switch and Indicator

Depression of the OFF LINE switch disconnects the punch from the system and lights the indicator. No punching occurs where the punch is disconnected from the system. To reconnect the punch to the system, press the switch again.

CHECK Indicator and RESET Switch

The CHECK indicator lights if:

- The punch malfunctions.
- There is excessive tape tension.
- The tape hold-down plate is open.

After the problem is corrected, push the RESET switch to re-activate the punch. The indicator light will turn off.



Figure 4. Punch Controls.

READER CONTROLS See Figure 5.

CHECK Indicator and RESET Switch

The CHECK indicator lights when the reader hold-down plate is open. Close the hold-down plate and push the RESET switch. The light will switch off.

PARITY CHECK Indicator and RESET Switch

When the CHECK indicator goes on, it means that the system has detected an error. Processing will stop. Check to ensure that the feed holes in the tape are aligned with the sprocket wheels. To continue, push the RESET switch. See Figure 6.

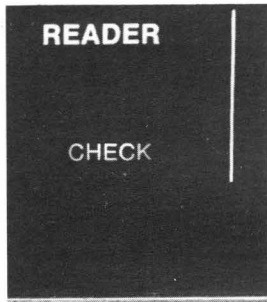


Figure 5. Reader Controls.

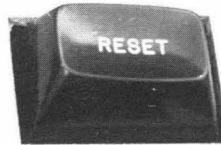
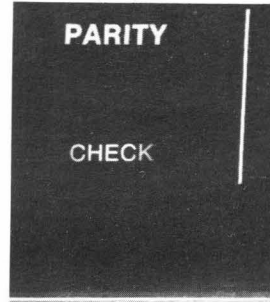


Figure 6. Parity Controls.

PAPER FEED Switch See Figure 7.

The PAPER FEED switch is used to feed paper at high speed around the printer platen. Paper will be fed as long as the switch is held down.



Figure 7. PAPER FEED Switch.

RUN/STOP Switch and Indicator

The RUN light is lit whenever the system is turned on or whenever the SYSTEM RESET switch is pushed. To stop the system temporarily, push the RUN/STOP switch. To re-activate the system, push the switch again. See Figure 8.

STEP Switch and Indicator

The STEP switch can be used only if the STOP light is lit. Each time the switch is pressed, a single character will be processed. See Figure 8.

REPRO ALL Switch and Indicator

To place the system into the *reproduce all* mode, press this switch. The indicator light will light. To end the reproduce all mode, press the switch again. Use of this switch is determined by the particular program being run and is described in the detailed operator instructions for that program. See Figure 8.

KEYBOARD INTERRUPT Switch and Indicator

To enter data from the alphanumeric keyboard during system operation, push the KEYBOARD INTERRUPT switch. The system and all auxiliary devices will stop processing and wait for the keyboard entries. When data entry is completed, push the switch again to resume processing. Use of this switch is determined by the particular program being run and is described in the detailed operator instructions for that program. See Figure 8.

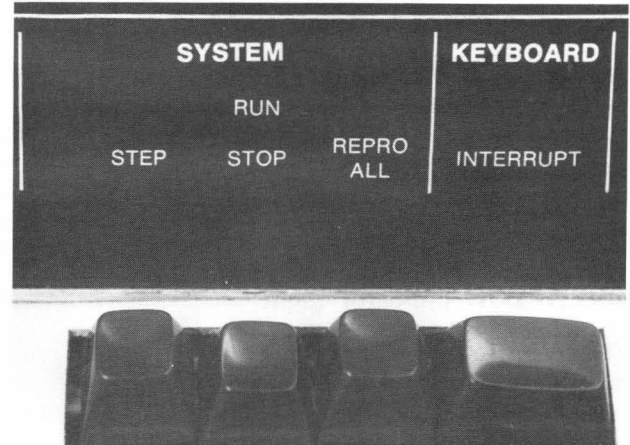


Figure 8. System and Keyboard Switches and Indicators.

SYSTEM RESET Switch

Pressing the SYSTEM RESET switch causes all system conditions to be reset. The alphanumeric keyboard is unlocked (all other devices are made inactive); program execution is terminated; and the SELECT SEQUENCE, ALPHA ACTIVE, and RUN lights are lit. See Figure 9.

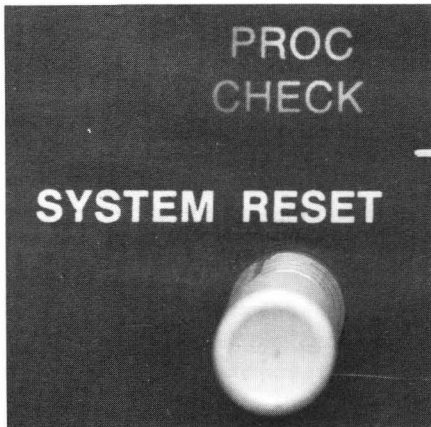


Figure 9. SYSTEM RESET Switch.

MANUAL SELECTOR Switches

The MANUAL SELECTOR switches set and reset certain conditions within the system. Use of these switches is determined by the operation of the particular program being run and is described in the detailed operator instructions for that program. See Figure 10.

ALPHA ACTIVE Indicator Light

The ALPHA ACTIVE indicator is lit when the system is first turned on, when the alphanumeric keyboard is activated, and when the SYSTEM RESET switch is pushed. The light is turned off when the alphanumeric keyboard is locked. (inactivated). See Figure 10.

OVERFLOW Indicator Light

The OVERFLOW indicator lights if an attempt is made to enter more than 14 digits plus the decimal point from the numeric keyboard. The light extinguishes when the C key on the numeric keyboard is pressed. See Figure 10.

SELECT SEQUENCE Indicator Light

This light goes on when:

- The system is turned on.
- Program loading is terminated.
- When the SYSTEM RESET switch is pushed.
- When a sequence separator is reached during program execution.

I/O CHECK Indicator Light

The I/O CHECK light is lit if either a reader or a punch is in an error condition. All processing will stop. See Figure 10.

PROC CHECK Indicator Light

The PROC (PROCESSOR) CHECK light goes on if an attempt is made to backspace more times than the system allows. All processing stops. To correct the condition, press the SYSTEM RESET switch and begin again.



Figure 10. MANUAL SELECTOR Switches and Indicator Lights for ALPHA ACTIVE, OVER FLOW, SELECT SEQUENCE, I/O CHECK, and PROC CHECK Conditions.

CARRIAGE CONTROLS

Paper Release Lever

Pull the lever forward to load paper and to release paper for repositioning or removal.

Multiple Copy Control Lever

The normal position is as forward as possible. Move the lever as required to adjust platen position for the thickness of multiple carbons.

Platen Variable Button

Push and hold the button to adjust the paper line position.

Platen Knobs

Push and hold the Platen Variable Button and then turn knobs to move the platen up or down.

See Figure 11.

FRONT COVER PLATE REMOVAL AND REPLACEMENT

To change the ribbon or clean the type bars, remove and replace the front cover plate as follows:

1. Firmly grasp the sides of the cover plate as shown in Figure 12 and lift up.
2. To replace the cover plate, align the pins on each side of the workstation housing with the spring clips in the bottom edge of the front cover plate and then push down until the spring clips catch.

CHANGING THE RIBBON See Figure 13.

Use the following procedure for changing the ribbon:

1. Remove the front cover plate. Wind the ribbon to either the fullest or the free-turning spool (change the direction of ribbon movement by means of the manual release lever near the right spool if necessary).
2. Remove the old ribbon and spool by pulling the spool straight off its spindle.
3. Place the empty spool on the left spool holder.
4. Insert the new ribbon and spool on the right spool holder.

5. Thread the leading edge of the ribbon through the right ribbon guide.
6. Thread the ribbon through the right ribbon guide, then turn the ribbon so the red edge (the edge which faces away from the type bars when the ribbon is on the spool) is facing downward.
7. Thread the ribbon through the ribbon center guides, through the left ribbon guide, and down through the left ribbon reverse lever.
8. Secure the ribbon end to the tab on the empty spool. Replace the front cover plate.

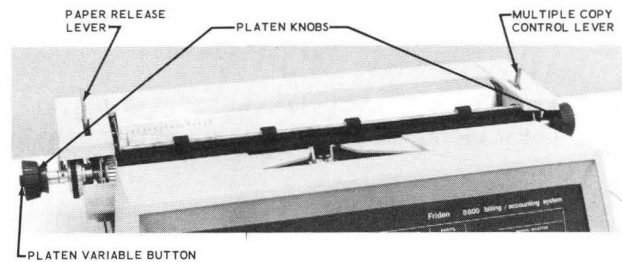


Figure 11. Carriage Controls.

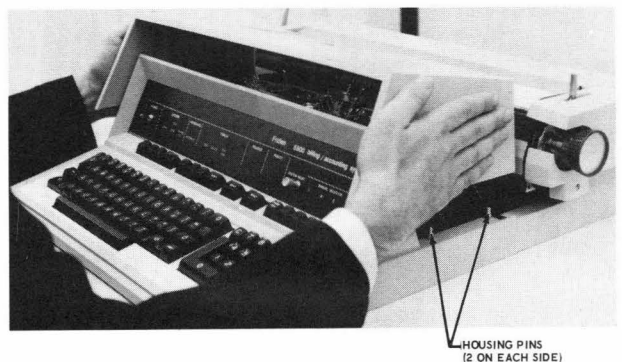


Figure 12. Front Cover Plate Removal and Replacement.

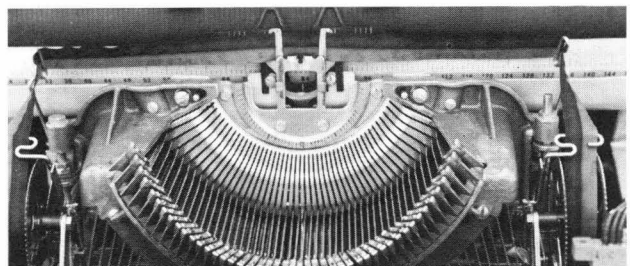


Figure 13. Workstation Ribbon Correctly Threaded.

LOADING PAPER TAPE IN THE PUNCH

Refer to Figures 14 and 15. Proceed as follows:

1. Open the punch door and pull the punch out as far as possible.
2. Turn the tape supply spool counterclockwise to remove it, then put the tape roll on the spool so that the tape unwinds to the left from the bottom of the roll. Install and tighten the spool and tape assembly on the housing by turning clockwise. To prevent the tape from turning and unwinding during this operation, hold the tape with one hand and tighten the spool with the other.
3. Unwind approximately three feet of tape and bring it up the back of the punch and over the top.
4. Pull the tape hold-down arm forward.

5. Thread the tape through the tape guide with the printed edge of the tape to the front of the punch. Pass the tape under the punch head, under the tape hold-down arm and under the white nylon roller.
6. Install the curved metal guide plate on the right side of the housing and bring the tape up and over it.
7. Push the tape hold-down arm back to its original position.
8. Push and hold the FEED key on the control panel until approximately two feet of tape are fed through the punch.
9. Thread the end of the tape around the guide post and then around the rewind spool. Put the tape into one of the slots on the rewind spool.



Figure 14. Installing Paper Tape in Punch.

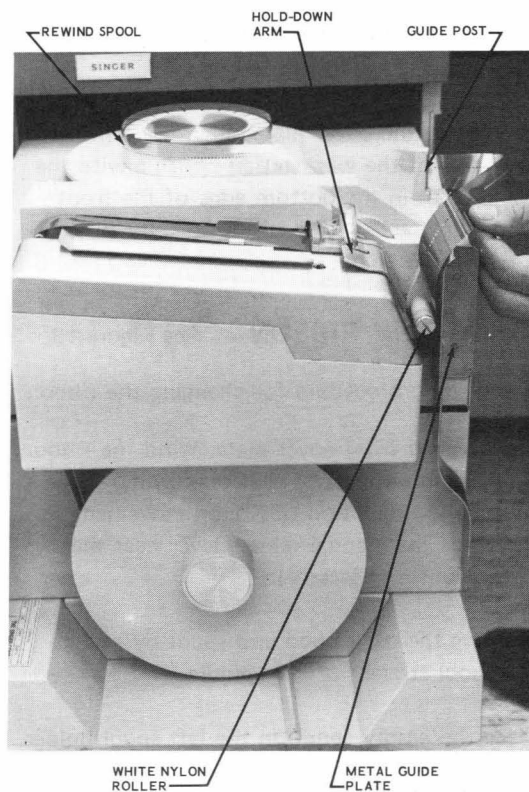


Figure 15. Installing Paper Tape in Punch.

LOADING EDGE PUNCHED CARDS IN THE PUNCH

Refer to Figures 16 and 17. Proceed as follows:

1. Remove the paper tape and tape supply spool from the punch by turning the spool counter-clockwise. Remove the curved metal tape guide from the right side of the punch by lifting the guide up and pulling it out.
2. Install the card stacker plate by inserting the small slot on the underside of the stacker plate into the opening uncovered by the removal of the tape supply spool.
3. Place a stack of fan-folded cards on the shelf below the punch with the card feed holes to the rear of the punch and with the printed side of the card up.
4. With the hold-down arm down, bring the strip of cards up over the back of the punch, slide the first card under the punch upper plate and move the card forward until the pins of the rear sprocket wheel have engaged the feed holes in the card. Now turn the feed knob forward

until the punch microswitch comes through the positioning hole in the card.

————— **Note** —————

The card must feed under the hold-down arm.

—————

5. Touch and release the FEED key on the control panel. The first card will advance through the punch and the second card will then be in the correct punching position as indicated by the appearance of the microswitch in the card positioning hole.
6. When the first card has been punched, touch and release the FEED key to guide the punched card into the stacker and to position the next card in the punch.
7. After punching the first few cards, make sure that the cards have been properly guided into the card stacker. If the first few cards have been properly positioned, the rest of the cards will fold and stack automatically.

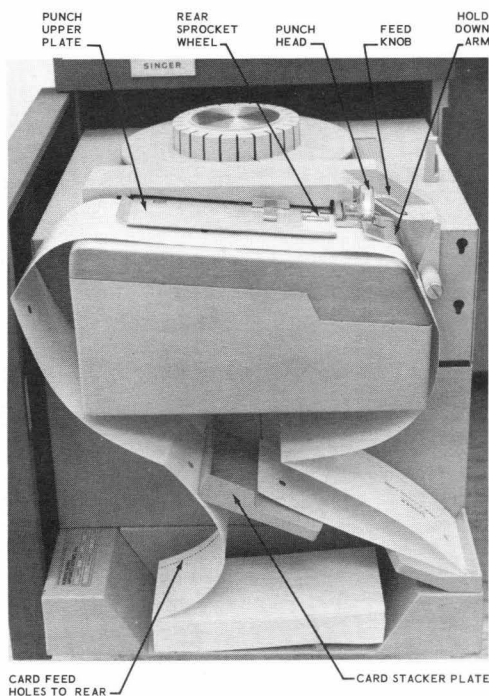


Figure 16. Installing Edge Punched Cards in Punch.

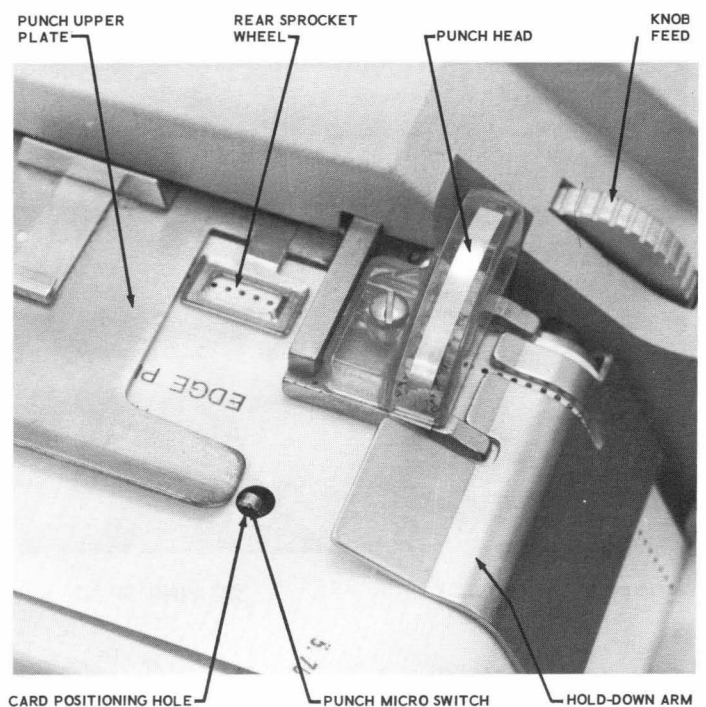


Figure 17. Installing Edge Punched Cards in Punch.

WORKSTATION

LOADING PAPER TAPE IN THE READER

Refer to Figure 18. Proceed as follows:

1. Slide the reader cover to the left.
2. Hold the supply plate with one hand and pull off the hold-down knob with the other.
3. Put the roll of punched tape over the spindle with the printed side of the tape up. Put the hold-down knob back into position.
4. Lift the reader table by pulling up the tab.
5. Pull the end of the tape from the roll, pass the tape around the tape guide and under the guide plate on the reader table.
6. Push the reader table down until it latches, making sure that the sprocket pins engage the tape feed holes. Touch and release the **READER RESET** key on the control panel. The reader is now ready for use.
7. When approximately two feet of tape have been read, thread the tape around the round tape guide and through the slotted guide post, then insert the end of the tape in the slot on the reader rewind spool.
8. Close the reader cover by sliding it to the right.

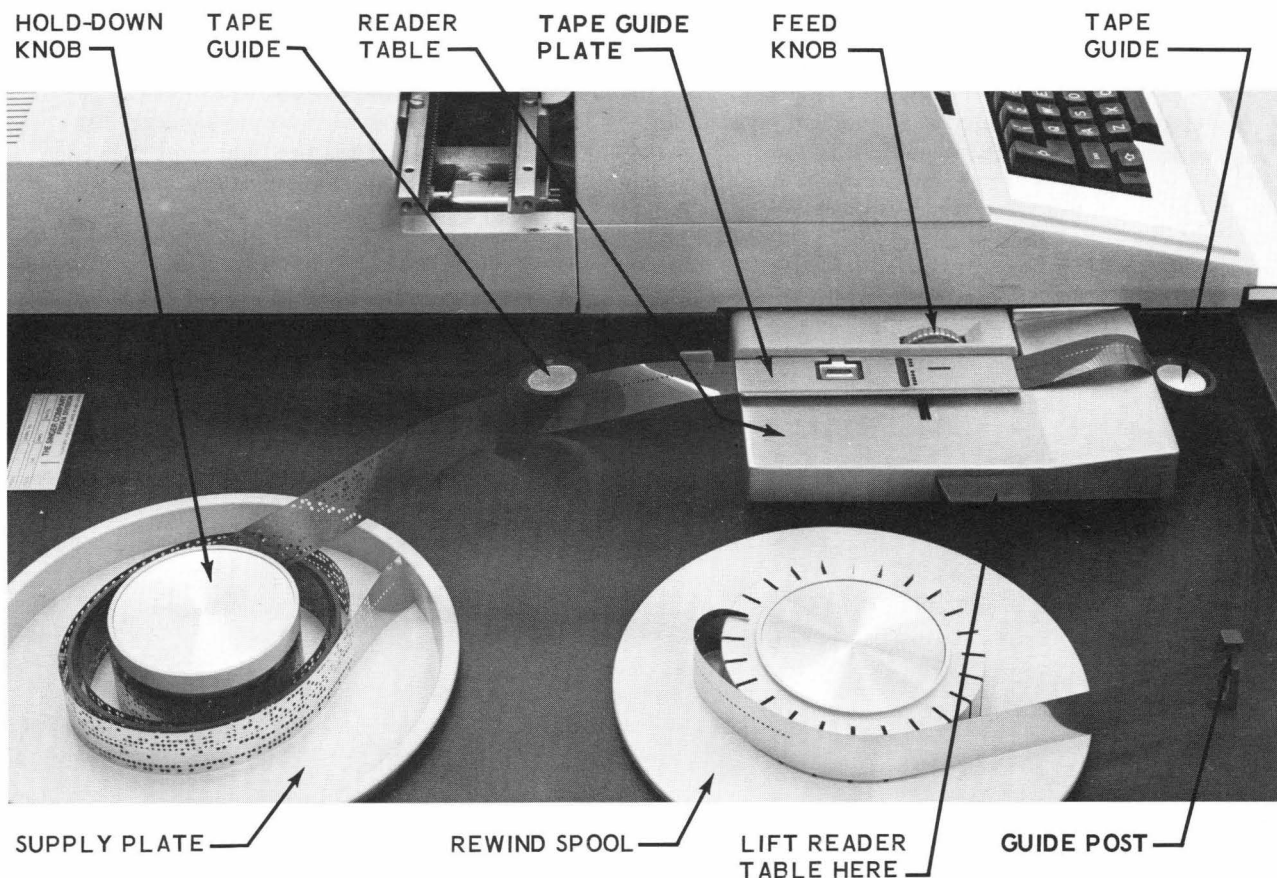


Figure 18. Installing Paper Tape in Reader.

LOADING EDGE PUNCHED CARDS IN THE READER See Figure 19.

To load edge punched cards in the workstation printer, proceed as follows:

1. Lift the reader table by pulling up on the tab.
2. Insert the card from the left and from behind the reader.
3. Slide the card forward and to the right under the guide plate on the reader table until the card is stopped by the reader guide.
4. Push the reader table down until it latches. The pins on the sprocket wheels will automatically engage the feed holes on the card.
5. Touch and release the READER RESET key on the control panel. The reader is now ready for use.

To remove an edge punched card from the reader, raise the reader table and slide the card out of the reader.

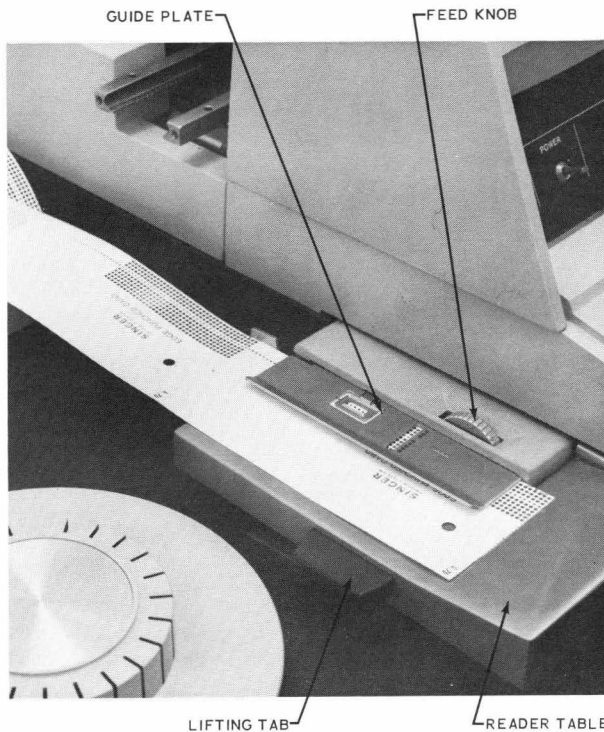


Figure 19. Installing Edge Punched Cards in Reader.

CORRECTING ERRORS IN PAPER TAPE AND EDGE PUNCHED CARDS

To correct an error made while punching tape or cards, proceed as follows:

1. Suppose that the word NUMBER was typed incorrectly as NUMVER.
2. Using the feed knob turn the tape or card back in the punch one notch for each incorrectly punched character so that the first incorrectly punched code is under the punch head. Thus, the tape or card in the example above would be turned back one notch for the R, one for the E, and one for the V.
3. Depress the DELETE key on the control panel once for each incorrect character (three times in this example).
4. Now type the correct letters B, E, and R.

Note

The characters typed on the printer paper will appear as NUMVERBER; however, the tape or card will be read correctly by the system.

If the printer copy cannot contain any errors or if a specific program being run requires the correction of the over- or underfilling of a field, consult the operating instructions applicable to that program.

PUNCHING CONTINUOUS DELETE CODES IN PAPER TAPE AND EDGE PUNCHED CARDS

To punch continuous delete codes in paper tape or edge punched cards, proceed as follows:

1. Depress and hold the DELETE switch.
2. Depress and hold the FEED switch until the desired number of delete codes have been punched.
3. Release the FEED switch.
4. Release the DELETE switch.

WORKSTATION

SPLICING PAPER TAPE

Use the following procedure for splicing paper tape:

1. Cut off the leading and the trailing edges of the tape, allowing about $\frac{1}{2}$ inch of feed holes on both ends.
2. Apply a small amount of Singer Tape Cement, Part Number 1052470, across the leading edge
3. Overlap the trailing edge of the tape on the leading edge. An overlap of two feed holes is sufficient.
4. Press the ends of the tape together, making certain that the feed holes are perfectly aligned. Allow the cement to dry for one minute before using the tape.

MAGNETIC STRIPE LEDGER PROCESSOR

INTRODUCTION

The Model 5819 Magnetic Stripe Ledger (MSL) Processor is an optional device for the 5800 System. The MSL reads, writes, and prints the data contained on magnetic stripe ledger cards. The data contained on a magnetic stripe can be transferred to the 5805 Processor for processing and updating and then the data can be sent back to the MSL to be rewritten on the stripe.

OPERATOR CONTROL PANEL

The MSL control panel (see Figure 20) consists of the following switches and indicators:

POWER Switch

This two-position switch turns power on and off to the MSL. When the switch is pushed away from the operator, power is supplied to the unit and the MSL is conditioned to receive instructions from the Processor. When the switch is pulled forward, (toward the operator) power is cut off to the unit. The CHECK indicator remains lit as long as power is supplied to other parts of the system.

RESET Switch

This pushbutton switch is used to reset the unit after the CHECK indicator is lit. The RESET switch functions only if the CHECK indicator is lit and if the condition causing the check has been corrected.

ACTIVE Indicator

When this indicator is lit, it signifies that the MSL Processor is in either a Receiver Active or a Transmitter Active condition.

READY Indicator

When lit, this indicator signifies that the MSL Processor is ready to accept an MSL card.

LOW PAPER Indicator

When lit, this indicator signifies that there is a low supply of paper remaining in the journal hopper. This

condition does not interrupt processing. When a new supply of journal paper is loaded, the indicator will turn off.

CHECK Indicator

When this indicator is lit, it signifies one or more of the following:

- An attempt was made to insert a card which was already *balance transferred*.
- A Read or a Write error occurred.
- The rear panel of the MSL cabinet is open.

BALANCE TRANSFER Indicator

When lit, this indicator signifies that the MSL will accept only an unused side of an MSL card. Consult the operator instructions for the program being used to obtain the proper steps to be taken.

UNEQUAL Indicator

When lit, this indicator signifies that an incorrect MSL card was placed in the unit. Consult the Operator Instructions for the program being used to obtain correction procedures.

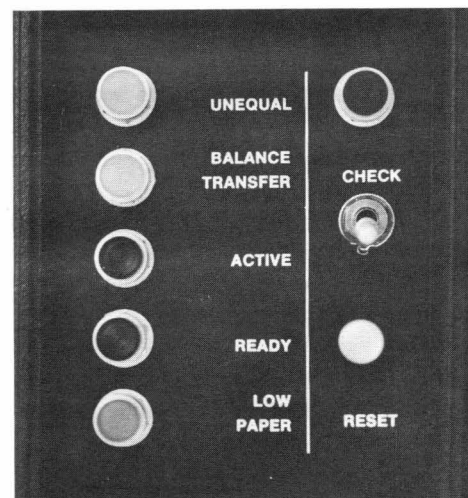


Figure 20.
Magnetic Stripe Ledger Processor Control Panel.

HANDLING MSL CARDS

The following rules should be followed when handling MSL cards:

1. Always hold MSL cards by the top edge to avoid getting fingerprints on the magnetic stripes. Avoid dropping a card since this may cause reading errors.
2. Keep MSL cards away from possibly magnetized objects, for example, paper clips, scissors, combs, or screwdrivers.
3. Never interrupt work with an MSL card in the unit; the card may be permanently bent.
4. Do not put MSL cards on hot surfaces such as window sills or the unit itself.
5. Keep ledger card file drawers closed when not using them.
6. Keep in mind that MSL cards are sensitive magnetic data carriers, like a magnetic tape or a magnetic disc. Failure to handle the cards with care will lead to an excessive number of cards not being accepted by the system.

ADJUSTING THE MSL CARD FEED SLOT

The MSL Processor can be adjusted to accommodate MSL cards of various sizes. Changing from one card size to another is done as follows: See Figure 21.

1. Loosen the setscrew holding the right-hand card guide and slide the guide left or right to an approximate setting.
2. Insert an MSL card into the feed slide and adjust the position of the right-hand guide so that the card is held firmly between the guides.
3. Tighten the setscrew to lock the right-hand guide in place.

Note

The position of the left-hand guide should only be changed by a Friden Customer Service Representative.

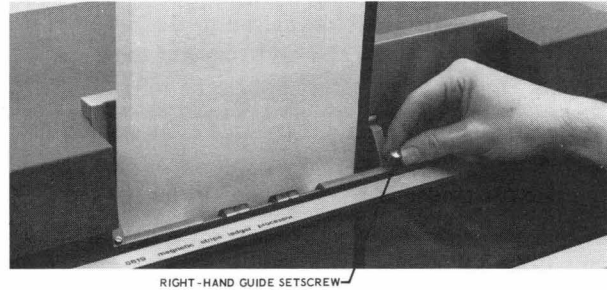


Figure 21. Adjusting for Size of MSL Card.

CLEANING THE READ/WRITE HEAD

The read/write head should be cleaned once a day. To clean the MSL read/write head, proceed as follows:

1. Sparingly apply cleaning solution to the felt stripe of a new cleaning card.

Caution

The cleaning card must remain dry; only the felt stripe should be moistened. If too much fluid is used, it may seep into undesired parts of the unit.

2. Insert the cleaning card into the MSL and select an operating sequence which will move the card through the read/write head five times.
3. Remove the wetted card and insert a dry one into the unit. Again, select a sequence which will move the card through the read/write head five times, or until all dirt and cleaning fluid is removed from the head.
4. Wait five minutes before using the machine so that all parts will dry completely.

LOADING THE MSL PRINTER

To load paper into the MSL, refer to Figures 22, 23, 24, 25, and 26; proceed as follows:

1. Open the rear panel door of the MSL cabinet.
2. Place the journal paper in the feed hopper, and lay two or three sheets straight out on the floor (Figure 23).
3. Release the clips on the right and left carrier guides and pull the print unit straight back and out of the cabinet (See Figure 23).

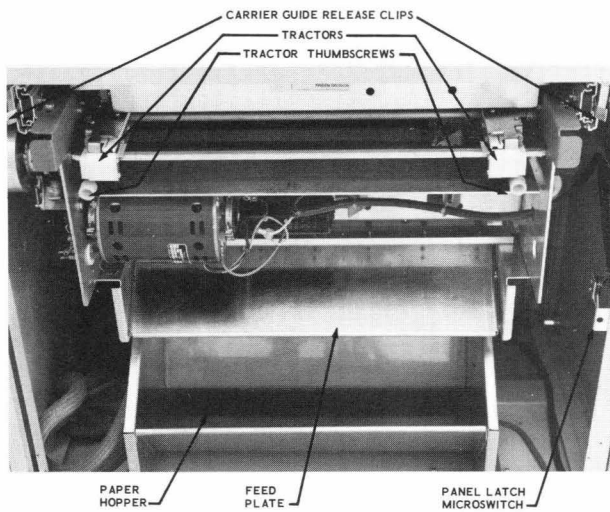


Figure 22. MSL Paper Handling Mechanism.



Figure 23. Pulling Print Unit Out of Cabinet.

4. Open the right and left tractor gates.
5. Lift the leading edge of the journal paper out of the hopper and lay it across the feed plate. Depress the feed plate and push the paper straight into the unit; the paper will be fed through the printing area and will appear at the top of the unit. See Figure 24.

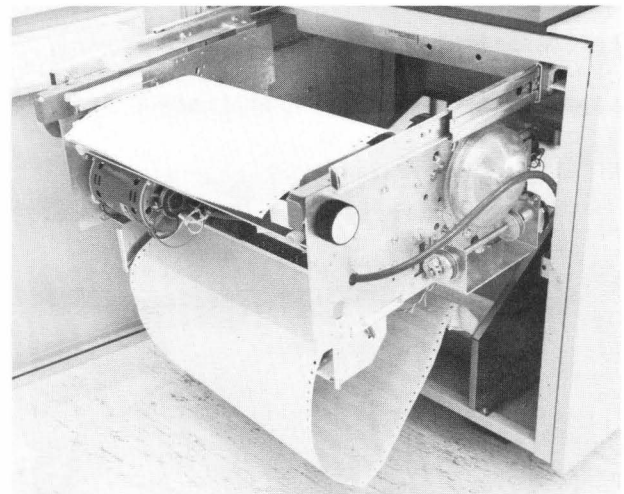


Figure 24. Paper Correctly Fed through Unit.

6. When the leading edge of the paper appears at the top of the unit, keep the feed plate depressed and pull the paper over the paper guide and across the tractors.
7. Place the perforations along the right edge of the journal paper over the feed pins in the right-hand tractor and close the gate.
8. If it is necessary to change the position of the left-hand tractor to accommodate the new paper, loosen the thumb screw and slide the tractor the desired position. Place the perforations along the left edge of the journal paper over the feed pins in the right-hand tractor and close the gate. Adjust the left tractor so that the paper is taut between the two tractors and tighten the thumb screw.
9. Depress the feed plate and gently pull on the journal paper to assure that it will feed correctly.
10. Check the position of the print wheel in relation to the right edge of the paper (see Figure 25). The

distance of the print wheel from the edge of the paper establishes the left-hand margin. If it is necessary to alter the existing margin, open the left-hand tractor and remove the paper from the feed pins. Then loosen the thumb screw on the right-hand tractor and move it to the desired position. After this is done, repeat steps 8 and 9.

11. Slide the unit back into the MSL cabinet.
12. As the panel door is closed thread any excess journal paper through the feed slot in the back panel (see Figure 26).
13. Latch the panel door firmly.

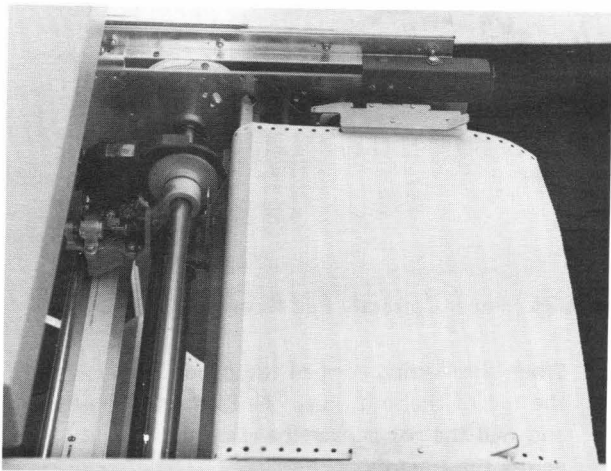


Figure 25. Checking Print Wheel Position.

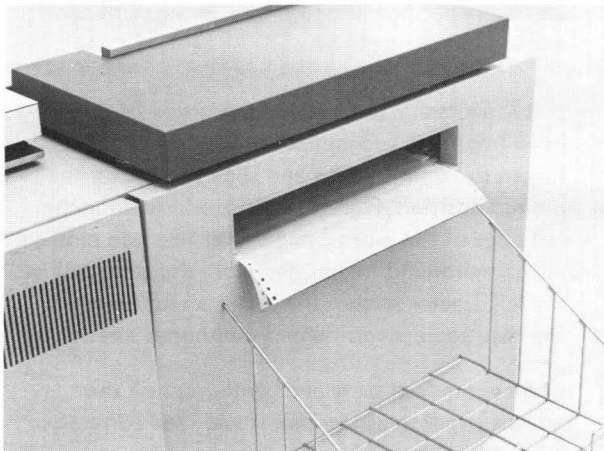


Figure 26. Paper Fed Through Rear Panel Door Feed Slot.

REPLACING THE INK ROLLER

To replace the MSL ink roller, proceed as follows:

1. Open the rear panel door of the MSL cabinet.
2. Release the clips on both left and right carrier guides and pull the print unit straight back out of the cabinet.
3. Lift the ink roller cover up and back.
4. Lift out the old ink roller and replace it with a new roller. See Figure 12.
5. Lower the ink roller cover.
6. Slide the print unit forward into the cabinet and close the rear panel door securely.

CLEANING THE MSL PRINT WHEEL

To clean the MSL print wheel, proceed as follows:

1. Open the rear panel door of the MSL cabinet.
2. Release the clips on both left and right carrier guides and pull the print unit straight back out of the cabinet.
3. Lift the ink roller cover up and back and remove the ink roller (see Figure 27).
4. Hold the ink roller cover away from the print wheel and then hold the MSL cleaning unit head (cleaning unit supplied with MSL) against the rim of the print wheel (see Figure 28).
5. Depress the microswitch in the rear panel latch. The print wheel will rotate as long as the switch is depressed (see Figure 28).
6. After a few seconds, release the microswitch and inspect the print wheel. If further cleaning is necessary, repeat steps 4 and 5.
7. Replace the ink roller.
8. Slide the print unit forward into the cabinet and close the rear panel door securely.

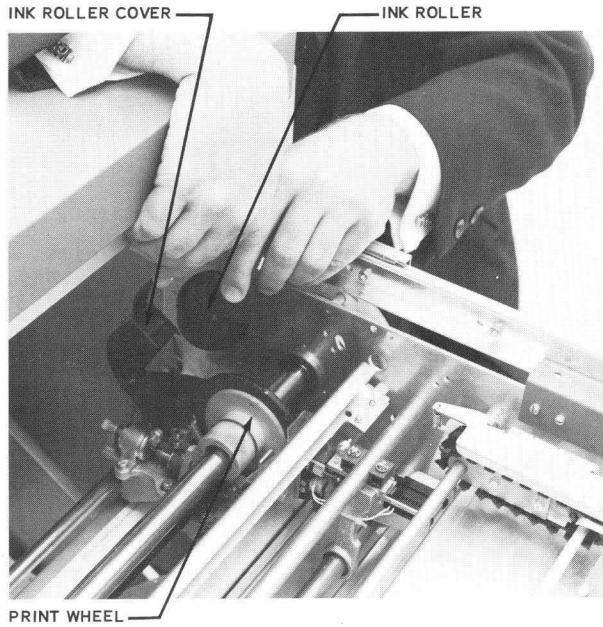


Figure 27. Removing Ink Roller.

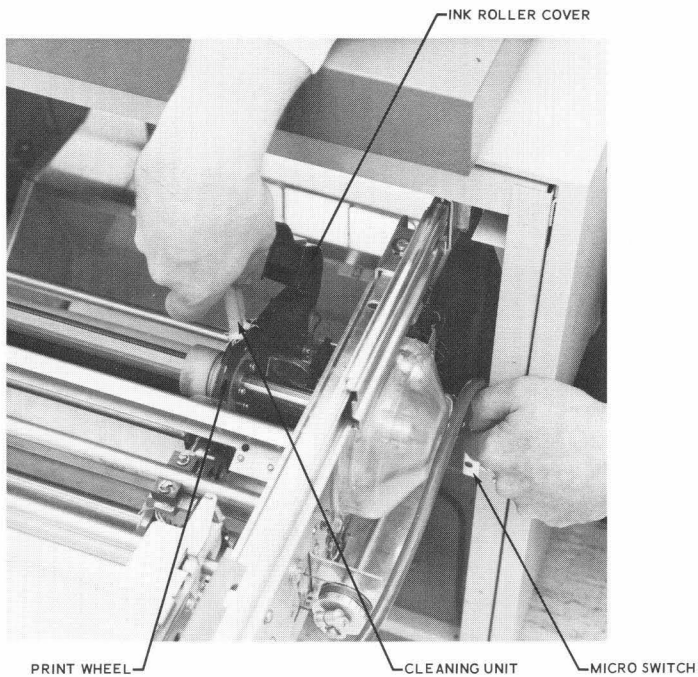


Figure 28. Cleaning Print Wheel.

INSERTION AND EJECTION OF MSL CARDS

How and when MSL cards are to be inserted and/or removed from the MSL unit is determined by the program that is being run and is explained in detail in the operator instructions for that program.

5800 BILLING/ACCOUNTING SYSTEM OPERATOR INSTRUCTIONS

Publication No. 10-700

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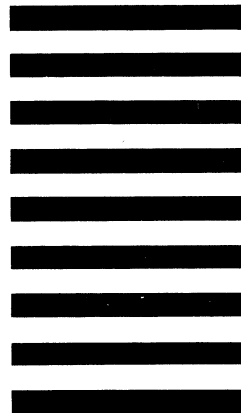
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