Burroughs

B 9246-10/13 BAND PRINTER

(INCLUDES B 9246-11, 12)

OPERATOR'S GUIDE

PRICED ITEM

Printed in U.S.A.

February 1982

Form 1137106

Burroughs

B 9246-10/13
BAND PRINTER

(INCLUDES B 9246-11, 12)

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1

INTRODUCTION

This manual will acquaint you with the operation and maintenance of the Burroughs B 9246-10/13 Band Printer. Please read this guide before operating the printer.

The manual is divided into the following sections:

Section 2 generally describes the features and operation of the printer.

Section 3 describes the use of switches, indicators, adjustment procedures, and other procedures used in operating the printer.

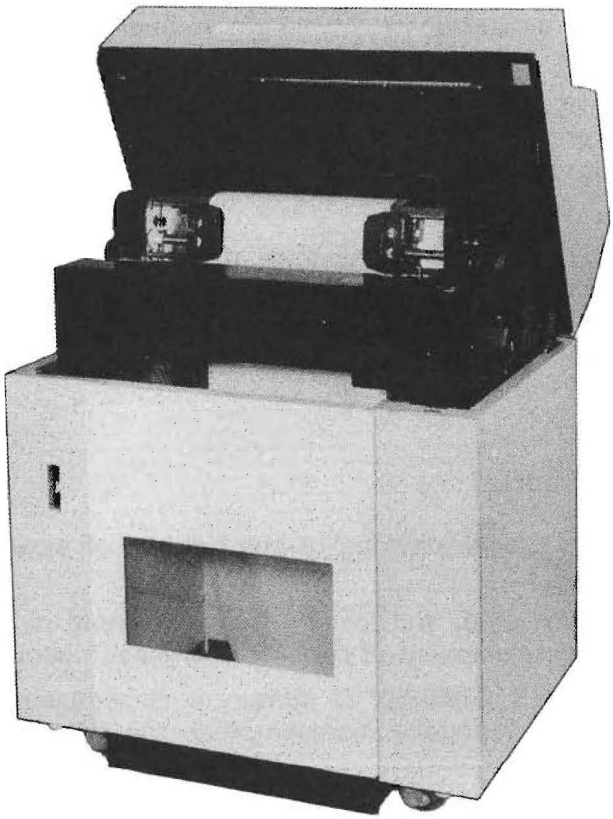
Section 4 gives operator maintenance information.

Section 5 explains operator troubleshooting, or problem handling as in recognizing fault conditions displayed on the operator panel, faulty paper stacking, and print quality.

The appendices include a summary/checklist of operator duties, forms/paper specifications, and a table of supply order numbers.

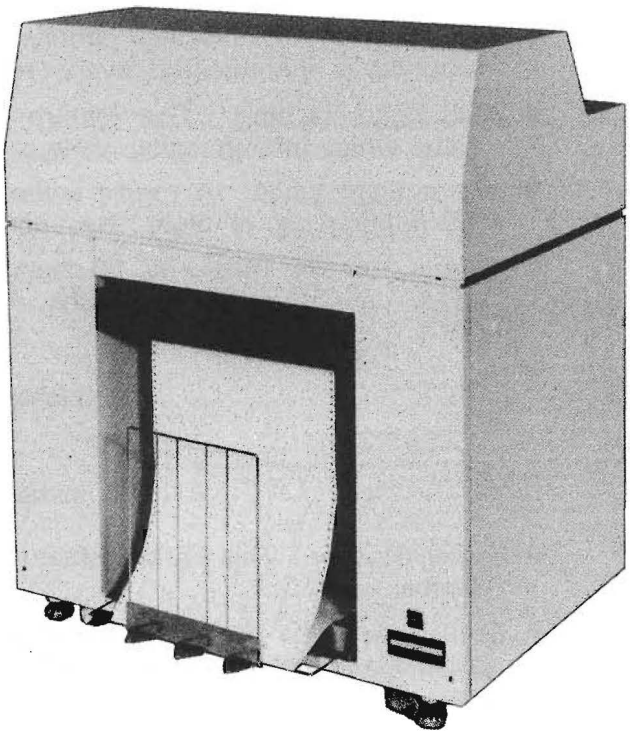
2

UNIT DESCRIPTION



TC1928

FRONT VIEW



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REAR VIEW

The B 9246-10/13 Band Printer is housed in a self-contained, sound-insulated unit. The printer has a capability of 132 characters per line (10 characters per inch) with a maximum printing speed of 1250 line per minute. Print band removal, ink ribbon changing, and paper forms handling are functions easily performed by the operator. Forms are placed on the hopper base at the front of the printer, loaded into two tractor assemblies, and fed into the stacker at the rear of the printer.

The printer runs off of a host system, receiving data from it. The printer is equipped with one of two interfaces which permits attachment either to the Burroughs B 90, B 900, CP 9000, and B 1900, or to the B 2900, B 3900, B 5900, and B 6900 host systems.

Printer Features/Capabilities

The printer includes the following:

- Operator Panel - This panel contains the controls and switches necessary to operate the unit. A 2-digit digital display affords communication to the operator, indicationg the status of the printer operation.
- Line Counter - This device permits the user to interrogate job length throughput. The counter is incremented every 100 lines printed.
- Multi-Band Sensing - This feature permits accurate selection of the proper character sets when interchanging various print bands.
- Six or Eight Lines - A toggle switch on the operator panel permits operator selection of printing six or eight lines per inch.
- Format Control Tape - A 12-channel vertical format tape enables the handling of a wide variety of forms lengths. Forms can be printed within the following limits:

WIDTH
4 inches to 17 inches

LENGTH
8 inches to 14 inches

- Power Stacker - This optional feature provides proper stacking of one full box of paper forms.
- Band Gate - The band gate assembly can be opened, and swings free, to permit easy insertion and alignment of paper forms, easy replacement of print band or inked ribbon.
- OCR Print Quality - This is obtained with the B 9246-10/13 printer. It is suggested that Form 2011904 be obtained from a local Burroughs representative; the rules for obtaining OCR print quality are within it.

3

OPERATION

This section explains how to operate the printer safely and effectively.

Section 3 covers use of the operator panel, load and form length switches, use of the manual controls, tests for printing, adjusting phase control and paper tension, use of the format control tape reader and adjusting the power stacker.

Operating the Line Printer Safely

To operate the printer properly and avoid possible accidents, the following is recommended:

1. Keep the printer in good clean condition and use it with sufficient light.
2. Use the printer with the cover closed, since the cover is designed to enhance safe operation and to reduce noise.
3. Do not place anything on the cover of the printer as it may drop into the printer or on the floor when the cover is opened.
4. Avoid touching any moving parts during printer operation when cover is open.
5. Make sure that the print band is not rotating when replacing or loading forms or ink ribbons. The operator **must** avoid touching the print band when it is rotating.
6. DO NOT allow anyone to turn the POWER ON switch ON when an operator is handling the printer. This avoids the possibility that the machine will start to run suddenly.
7. Be sure to **turn OFF the MAIN POWER switch before servicing the printer.**

Power On/Off Sequence

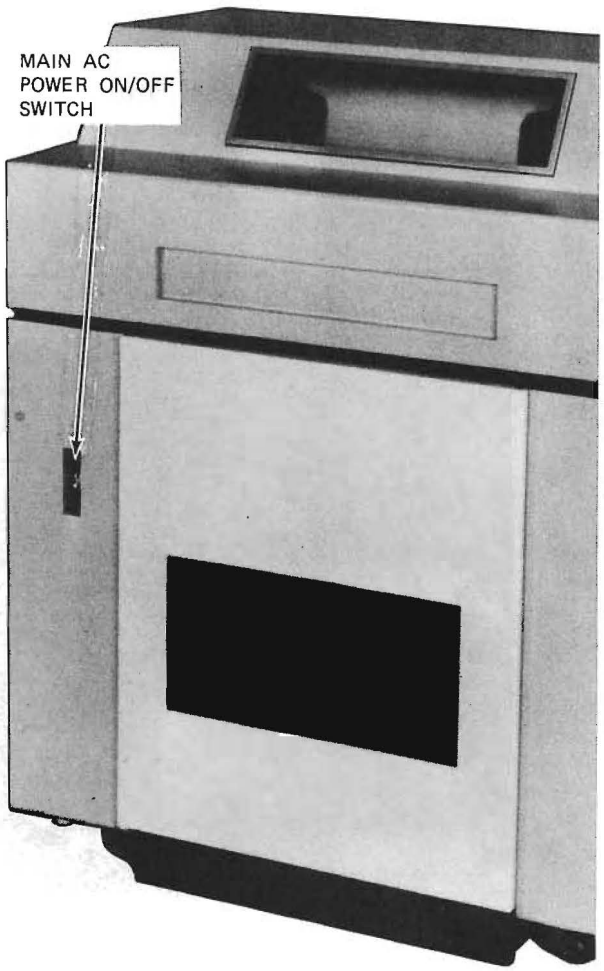
The MAIN AC POWER switch is used to power the printer ON and OFF. It is located on the front left of the printer.

To power the printer ON:

- Turn the MAIN AC POWER switch to ON. The POWER ON indicator on the operator panel will turn on.

To power the printer OFF:

1. If the START RESET indicator is on, first press the STOP switch, then turn the MAIN AC POWER switch OFF. The POWER ON indicator will turn off.
2. If the START RESET indicator is off, turn the MAIN AC POWER switch to OFF. The POWER ON indicator will turn off.



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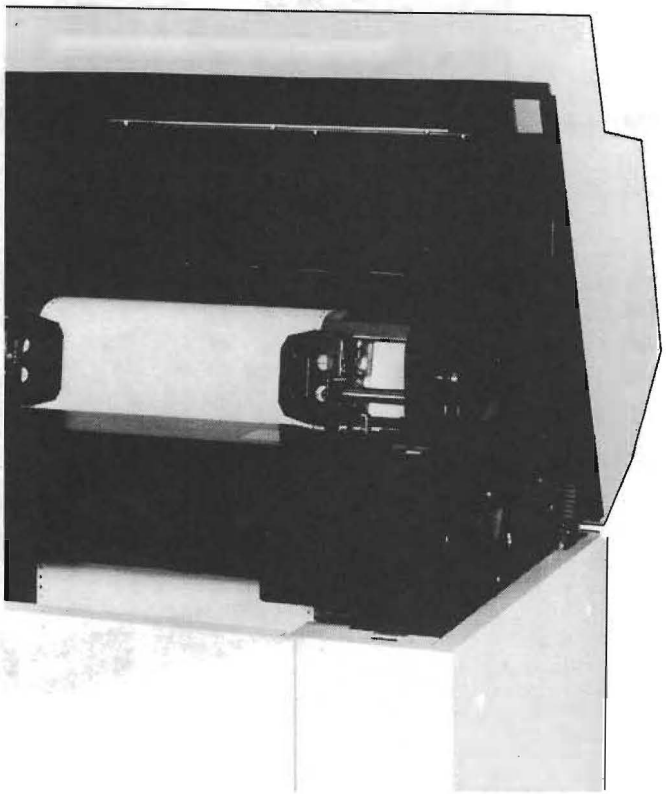
Using the Operator Panel

To view the operator panel, lift the top cover up from the front edge, till it rests comfortably on the back hinges. The operator panel is on a top right corner, as shown in the illustration.



The following table lists indicators and switches, as well as their functions.

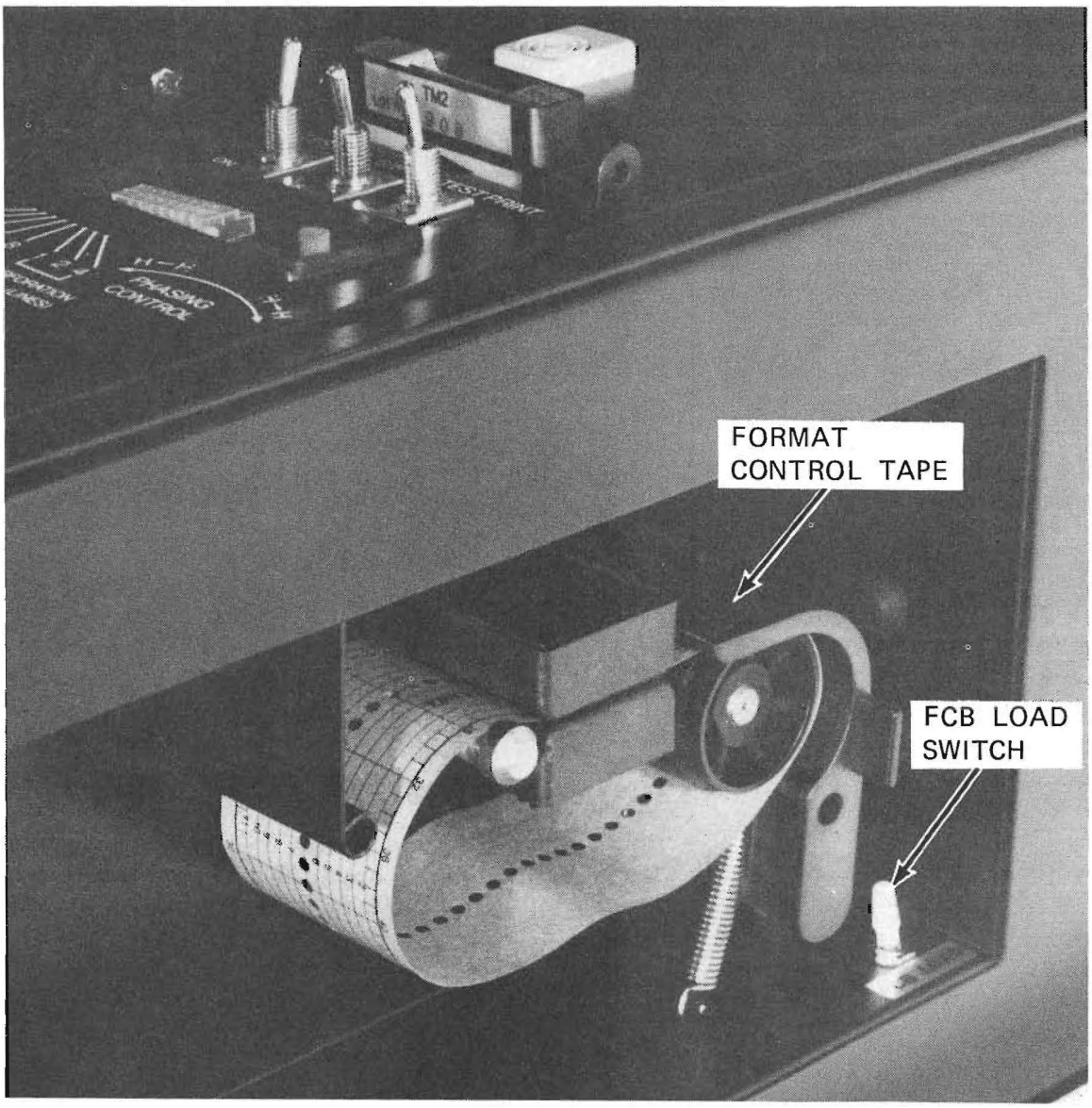
Switch/Indicator	Color	Function
FCB (Indicator) (Forms Control Buffer)	Green	When the Forms Control buffer is loaded with format control data this indicator is lit.
PHASING CONTROL (Potentiometer Knob)		This knob is used to adjust how letters are struck on paper. When "H" is printed cut off right, turn this knob clockwise for correction. If "H" is printed cut off left, turn the knob counterclockwise for correction.
POWER ON (Indicator)	Green	When the power is ON this indicator is lit.
READY (Indicator)	green	When the printer is ready for operation, this indicator lights.
SINGLE SPACE (Switch)	Green	Pressing this switch, with the START RESET indicator off, feeds forms through the printer one line at a time.
START RESET (Switch and Indicator)	Green	When this switch is pressed, the printer is reset to the initial condition and made ready for operation. The indicator is lit, indicating that the printer is online and ready to receive data from the host system.
Status Indicator	Red	The message varies, as follows:
02		– indicates that the gate is open.
03		– indicates that the end of forms is reached.
04		– indicates that forms are jammed.
05		– indicates that the ink ribbon is not feeding properly.

Continued

Switch/Indicator	Color	Function
06		– indicates FCT tape not loaded or a tape data error.
07		– indicates a stacker jam (provided a power stacker is attached).
STOP (Switch)	Red	When pressed, this switch stops printing and the START RESET indicator turns off.
TEST PF (Toggle Switch)		This switch is used to align the paper feed unit. (It is used by a Burroughs Field Engineer.)
TEST PRINT (Toggle Switch)		Activating the TEST PRINT toggle switch when the START RESET indicator is off causes the printer to print either HHH... or ABC... test patterns. The operator may use this switch in aligning the forms prior printing and to verify that all hammers are functioning correctly. "SC" position prints HHH... "SR" position prints ABC...
TOP OF FORM (Switch and Indicator)	Green	Pressing this switch, with the START RESET indicator off, feeds forms until the channel 1 of the forms control buffer is detected and turns the indicator on.
6/8 LPI (Toggle Switch)		This toggle switch sets the line spacing mode to either 6 or 8 lines per inch. When the START RESET indicator is off and the TOP OF FORM indicator is on, the paper spacing can be changed to 6 lines/inch and 8 lines/inch, respectively. "6" position → 6 lines/inch "8" position → 8 lines/inch

Using the FCB LOAD Switch (For FCT Reader)

This Format Control Buffer LOAD toggle switch is in the format control tape reader unit (if used), on the right side of the printer (see illustration). Pressing this switch once causes the data to be read from the format tape and stored in the format control buffer.



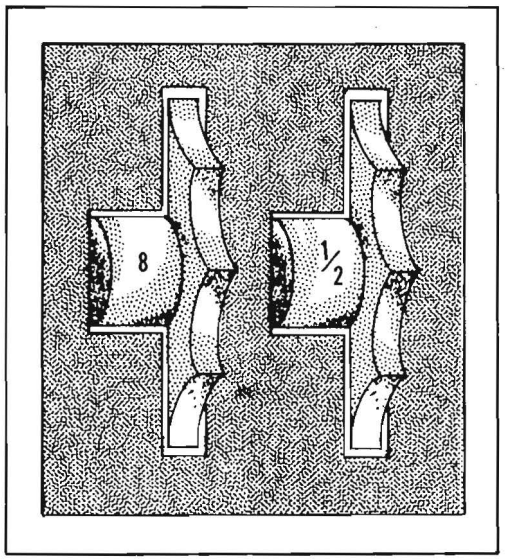
TC1932

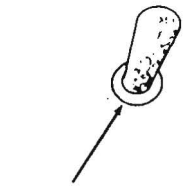
3 Using the Form Length Select Switch and FCB LOAD (with FLS)

Using the Form Length Select Switches

These are black thumbwheel switches, provided for the form length select option. These switches are set to the appropriate form length. The combined settings of the two switches define the length-of-form the printer will handle. Switch designations are 3, 3-1/2, 4, . . . 13-1/2, 14, 14-1/2. The form length is loaded into the FCB (Forms Control Buffer) when the unit is powered on, or by activating the FCB LOAD switch.

FORM LENGTH
SELECTOR SWITCH





FCB LOAD
TOGGLE SWITCH

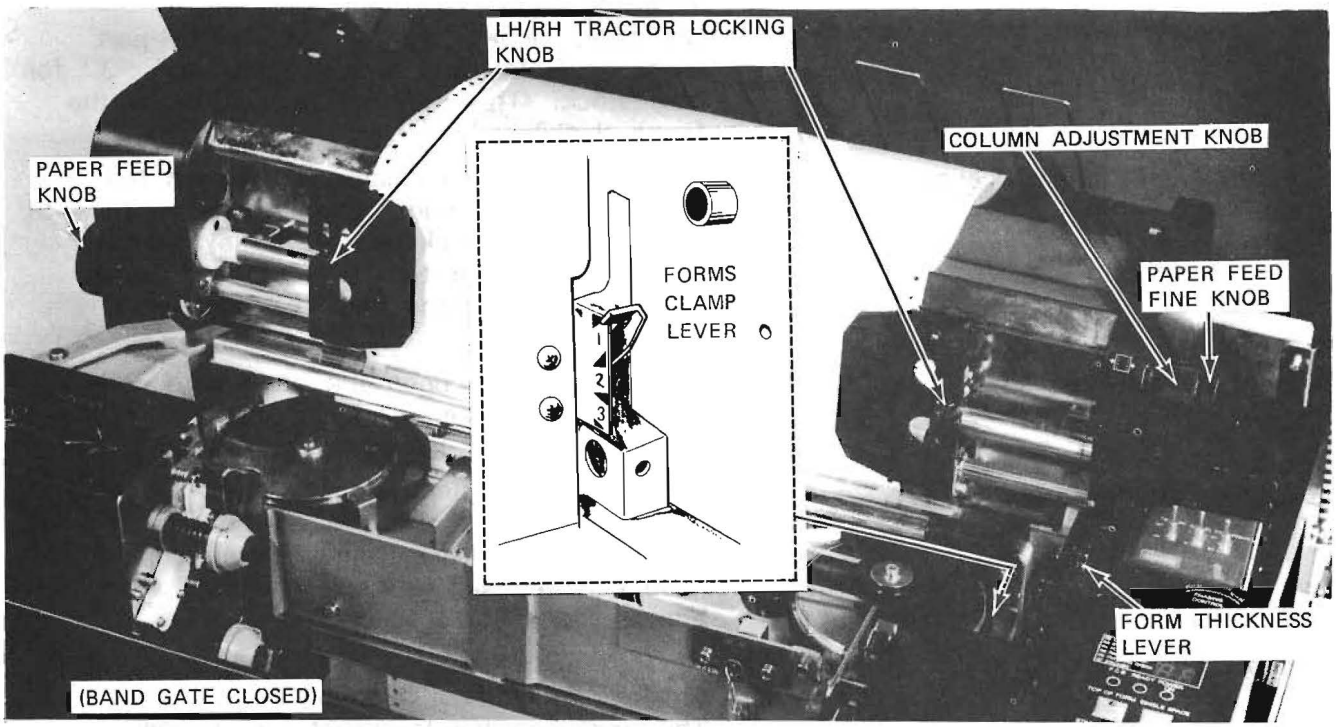
TC1933

Using FCB LOAD (With FLS)

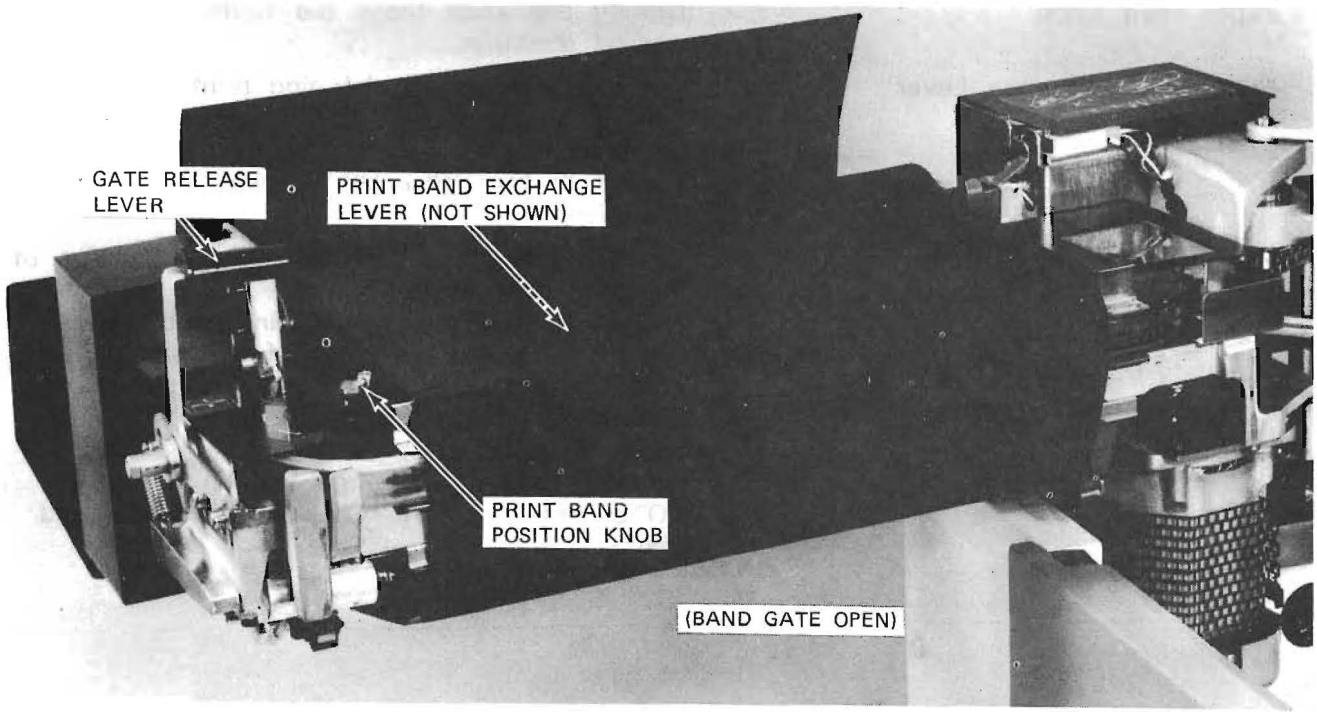
When activated, this toggle switch loads FLS (Forms Length Select) data and turns the TOP OF FORM indicator light on. (See illustration.)

Using the Manual Controls

The knobs and levers indicated in the illustration are listed, along with their functions, in the table that follows.



TC1934



TC1935

Lever/Knob	Function
Column Adjustment Knob	Turning this knob permits fine moving of forms in a horizontal direction. The LH/RH tractor locking knob must be locked securely to use this knob.
Forms Clamp Lever	This lever permits stable paper feeding according to the thickness of forms. Generally, move it to "1" for 1 to 4-part forms, "2" for 5 or 6-part forms and "3" for card stock. (This may vary according to the forms thickness.)
FORMS THICKNESS Lever	This lever sets the clearance between the hammer and the print band in accordance with seven different thickness of forms values. Generally, move it to "1" for 1-part forms, "4" for 4-part forms and "6" for 6-part forms.
Gate Release Lever	Use this lever to open the band gate. Pull it, and the band gate will swing open. Note: The Status indicator displays "02".
LH/RH Tractor Locking Knob	This knob locks the tractor securely in place. Once the form is placed in the tractor and the tractor locked in place, the column adjustment knob can be used to fine adjust the forms horizontally.
Paper Feed Fine Knob	Turning this knob enables fine alignment of the form in the vertical direction. This knob is used to adjust the vertical position of printed characters on the form.
Paper Feed Knob	Turning this knob feeds the forms in the vertical direction.
Print Band Exchange Lever	Use this lever when changing print bands. Turn it to the "TAKE OFF" position to remove the print band. Turn it to the "SET UP" position for normal operation.
Print Band Position Knob	Use this knob to adjust the vertical position of the print band edge. Turn it to "UP," and the print band moves upward. (Toward the front of the unit.) Turn it to "DOWN" to move the print band downward. (Toward rear of unit.) The print band is in the optimum position when it comes in the red line on the prism. NOTE: Refer to "31" Displayed (Band Speed Check)

Removing Forms

To remove forms:

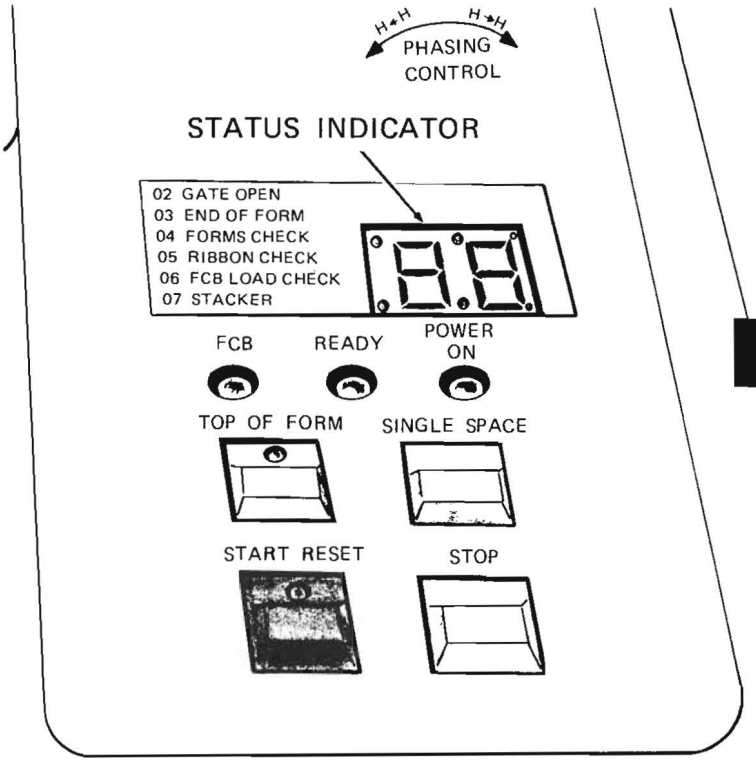
1. If the START RESET indicator is lit, press the STOP switch before opening the printer covers. Otherwise, open the upper cover and the front cover, then open the band gate (see illustration).
2. If "03" is displayed on the Status indicator, do the following; otherwise, proceed to step 3.

   1) If the printer is fitted with a puller, press the TOP OF FORM switch and let papers fall into stacker.

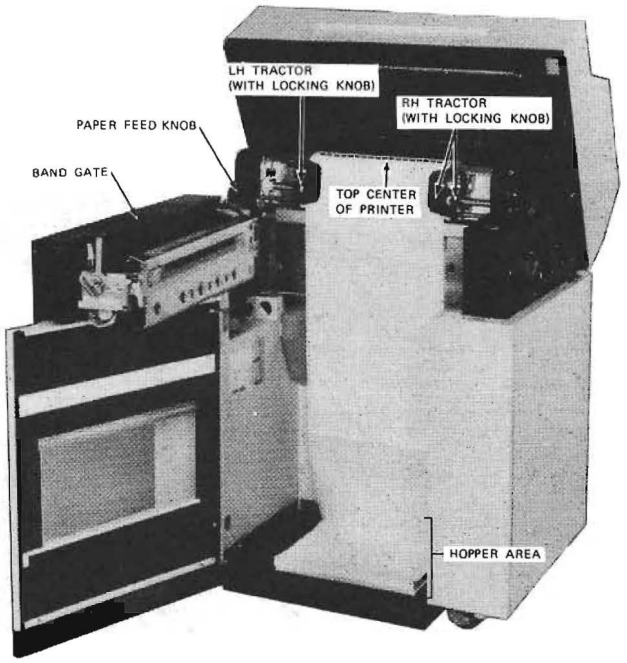
   or

   2) Remove the forms from the tractors (see illustration), and let them fall into the hopper. Proceed to step 5.

3. Feed the forms through the printer using the paper feed knob until the perforated edge reaches the top center of printer. Cut off the forms at the perforated edge.
4. If the printer is fitted with a puller, first press the STOP switch and let forms fall into stacker. Otherwise, move forms gently by hand so that they fall into the stacker. Take forms off of tractors.
5. Remove forms from the hopper.



TC1936



TC1937

Loading Forms

To load forms on the printer:

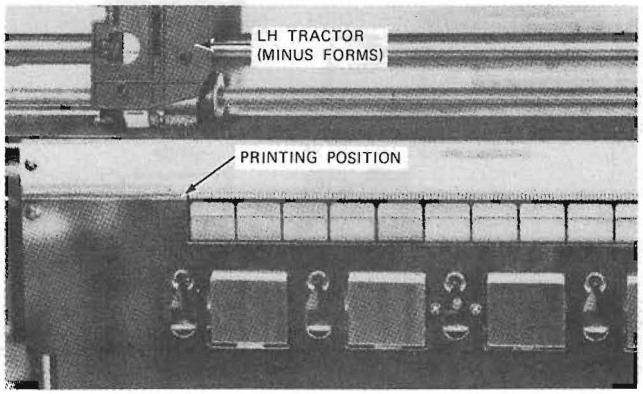
NOTE

Remove the forms from the carton box before putting them into the hopper to prevent a paper jam.

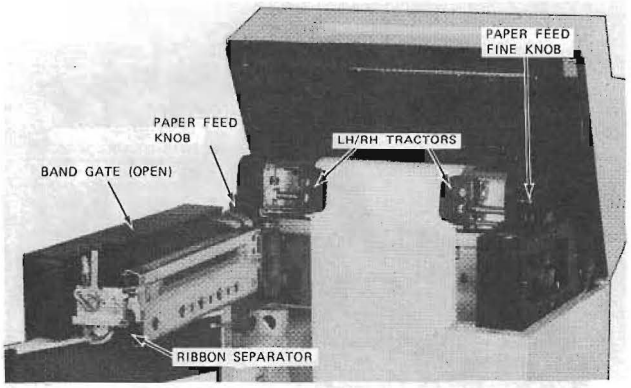
CAUTION

If the paper contains an excessive amount of chad, notify the paper supplier about the condition. The chad may cause problems with printer mechanism.

Do not put new forms over the end of the old forms and continue printing. This could damage the hammer and the feeder, or cause a paper jam.



TC1938



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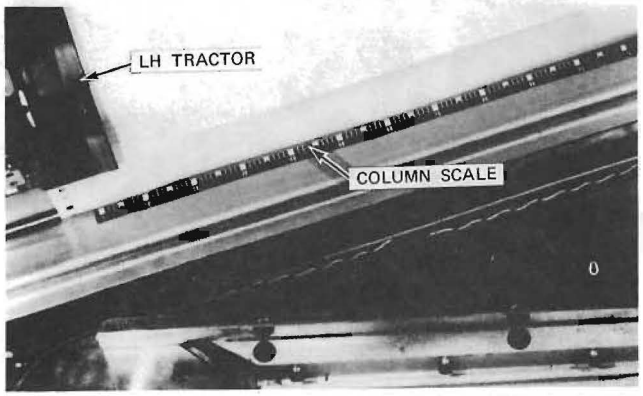


1. Place new forms in the hopper. Loosen the lefthand and righthand tractor locking knobs. Load forms onto the lefthand tractor. Move the righthand tractor into place and load forms onto it.

CAUTION

Refer to the "caution plate" inside the hopper to verify proper procedures.

2. Turn the paper feed knob to make the first print line align with the printing position.
3. Fine adjust the print line with the paper feed fine knob.
4. Detach the ribbon separator from the band gate and press it onto the printing surface.
5. Move lefthand and righthand tractors to adjust the horizontal printing width with the column scale (on the band gate).

NOTE

Refer to the correct heading in this section to make proper adjustments for forms thickness, size, and printing.

6. Turn the column adjustment knob to fine adjust the horizontal printing width. Move the form thickness lever to accommodate the thickness of the forms. Close the band gate.
7. If the printer is equipped with an FCT (Format Control Tape) reader, be sure the correct format tape is on the reader. Refer to FCT (Format Control Tape) Reader for loading and operating instructions, then proceed to step 8.

   If the printer is equipped with a Form Length Selector, refer to Form Length Selector (FLS) for operating/adjustment procedures, then proceed to step 9.

   If the printer is equipped with neither of the above, proceed to step 8.

8. If the TOP OF FORM indicator is off, press the TOP OF FORM switch before continuing.
9. The TOP OF FORM indicator should be lit. Press the START RESET switch, the following indicators should be lit: POWER ON, READY, FCB, TOP OF FORM, and START RESET. Printing should start. (Be sure the top of the form is securely fed into the stacker.)

CAUTION

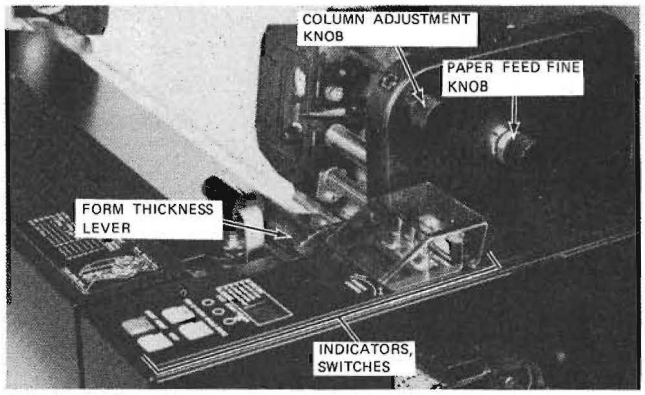
Handle the stacker as instructed by the "caution plate" located inside the stacker area.

10. Press the START RESET switch. The following indicators should turn on:

    1) POWER ON
    2) READY
    3) FCB
    4) TOP OF FORM
    5) START RESET

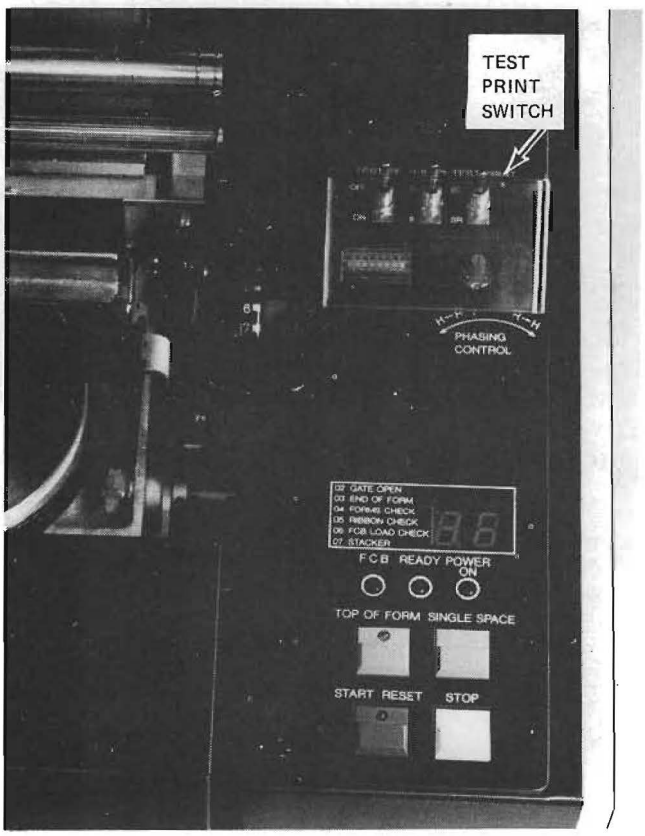
(Be sure the top of form is securely fed into the stacker.

11. Close the front cover and the upper cover.



TC1941

TC1942



TC1943

```
/0123456789:;<=>?@ABCDEFGHIJKLMNO
0123456789:;<=>?@ABCDEFGHIJKLMNOP
123456789:;<=>?@ABCDEFGHIJKLMNOPQ
23456789:;<=>?@ABCDEFGHIJKLMNOPQR
3456789:;<=>?@ABCDEFGHIJKLMNOPQRS
456789:;<=>?@ABCDEFGHIJKLMNOPQRST
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```

SR (Sliding Ripple) Printing

SC (Solid Character) Printing

Testing Printing

Use the following procedure:

1. If the START RESET indicator is lit, press the STOP switch before beginning testing.

2. Turn the TEST PRINT switch to the SR position. The printer performs SR printing (ABC . . .) as shown in the illustration. Check the following:

   1) The printing position of forms (refer to Adjusting the Vertical Print Position, in this section).
   2) The print band for cleanliness (refer to Print Band Cleaning, in the Maintenance section).
   3) The print band for wear (refer to Print Quality, in the Troubleshooting section).

3. Turn the TEST PRINT switch to the "SC" position. The printer prints in SC (HHH...) type, as shown in the example.

   Check the following:

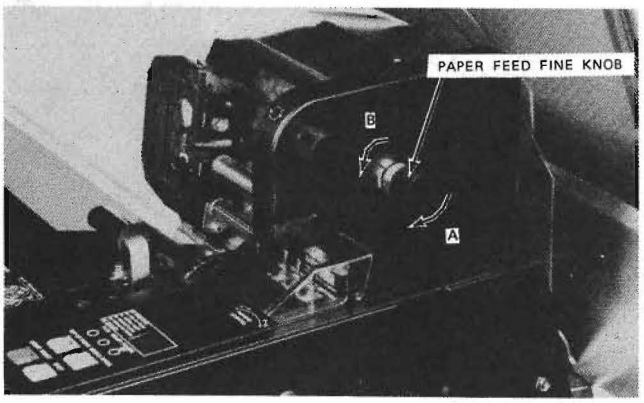
   1) The vertical and horizontal alignments of printed characters (refer to Print Quality, in the Troubleshooting section).
   2) Phasing (refer to Adjusting the Phasing Control, in this section).

 TC1944

Adjusting the Vertical Print Position

Use the following procedure:

1. If the printing is as in example A, turn the paper feed fine knob clockwise (direction A).



TC1945

Example A:

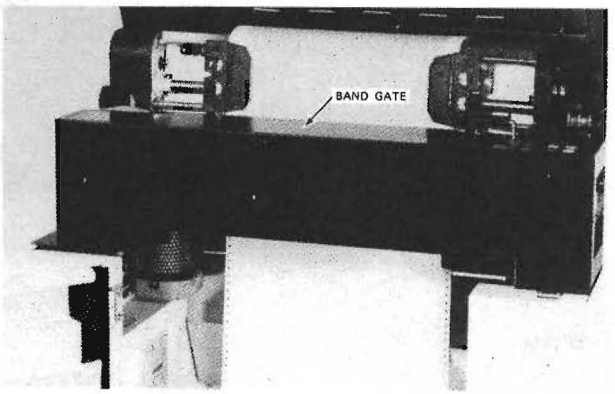
year	month	day	amount	
50	9	30	4,300	
50	10	1	5,100	
50	10	2	3,750	

2. If printing is as in example B, turn the paper feed fine knob counter-clockwise (direction B).

Example B:

year	month	day	amount	
50	9	30	4,300	
50	10	1	5,100	
50	10	2	3,750	

NOTE
If forms get loose from the track, pull forms gently down at the bottom of the band gate till they catch, or open and close the band gate once.

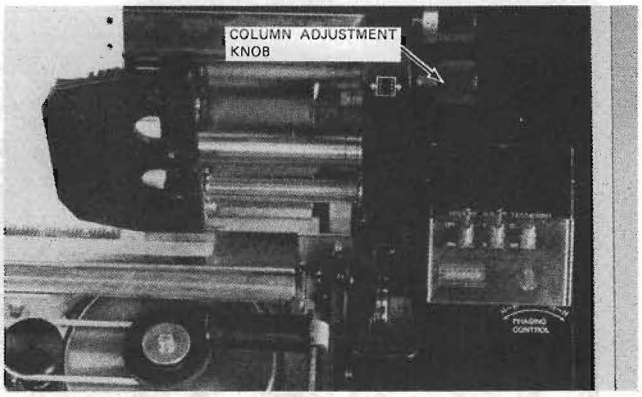


TC1946

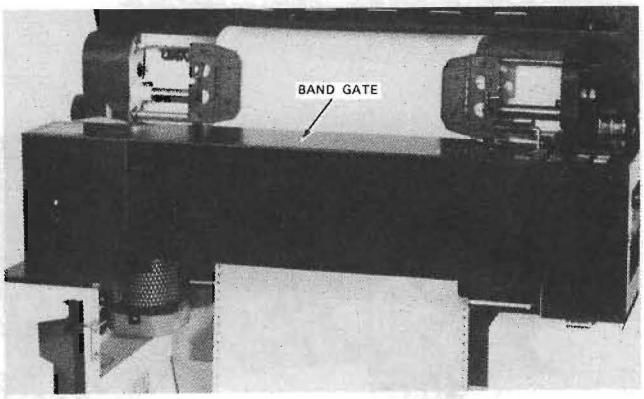
3. Normal printing looks like example C.

Example C:

year	month	day	amount	
50	9	30	4,300	
50	10	1	5,100	
50	10	2	3,750	



TC1947



TC1948

Adjusting the Horizontal Print Position

Use the following procedure:

1. If printing is similar to example A, turn the column adjustment knob clockwise. The forms will move to the right.

Example A:

year	month	day	amount
50	9	30	4,300
50	10	1	5,100
50	10	2	3,750

TC1949

2. If printing is similar to example B, turn the column adjustment knob counterclockwise. The forms will move to the left.

Example B:

year	month	day	amount
50	9	30	4,300
50	10	1	5,100
50	10	2	3,750

TC1950

NOTE

When the forms have been moved with the column adjustment knob, open and close the band gate once; at the same time move the forms in the hopper in the feeding direction.

3. Example C is of normal print.

Example C:

year	month	day	amount
50	9	30	4,300
50	10	1	5,100
50	10	2	3,750

TC1951

Adjusting the Phasing Control

Use the following procedure:

1. If printing is similar to example A, turn the PHASING CONTROL knob counterclockwise slowly.

   Example A:

2. If printing is similar to example B, turn the PHASING CONTROL knob clockwise slowly.

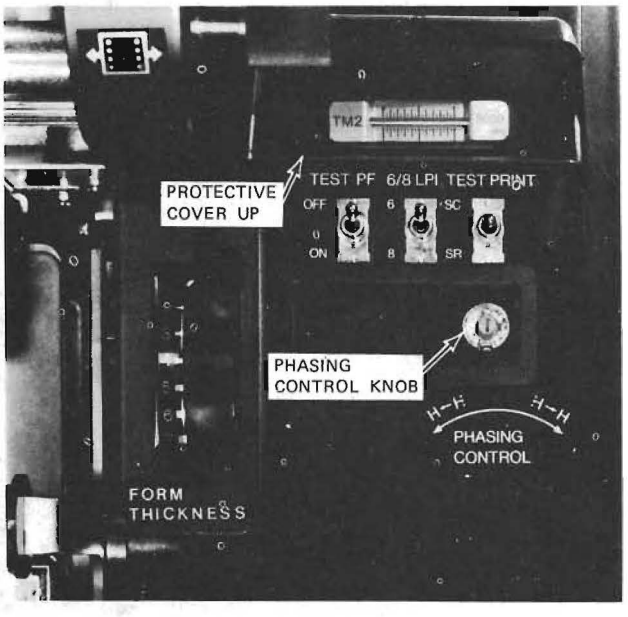
   Example B:

   CAUTION

   The need to use the PHASING CONTROL knob should be rare. If printing continues with unfavorable results, the life of the ink ribbon will either be extremely shortened, or breakage of the hammer and the print band may occur. A Burroughs Field Engineer should be notified.

3. Example C shows normal print.

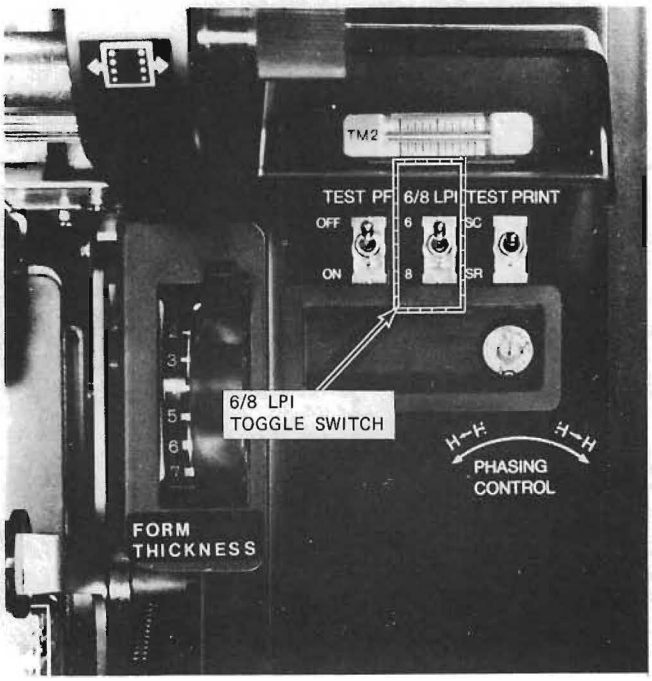
   Example C:



TC1952

Changing the 6/8 LPI

Use the following procedure:



TC1953

1. If the START RESET indicator is lit, press the STOP switch before beginning procedure.
2. Press the 6/8 LPI switch to "6," or "8," whichever is desired.
3. If necessary, change the Format Control Tape as under FCT (Format Control Tape) Reader Operating. Change forms as under Forms Loading. Press the START RESET switch to commence printer operation.

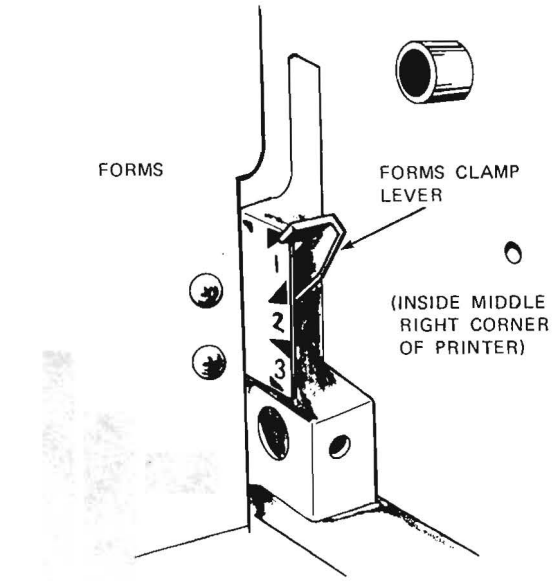
Adjusting the Paper Tension

Paper tension is adjusted via the forms clamp lever, the FORMS THICKNESS lever, and/or the righthand tractor. Check that the forms being used are within the specifications given in appendix C.

Using the Forms Clamp Lever

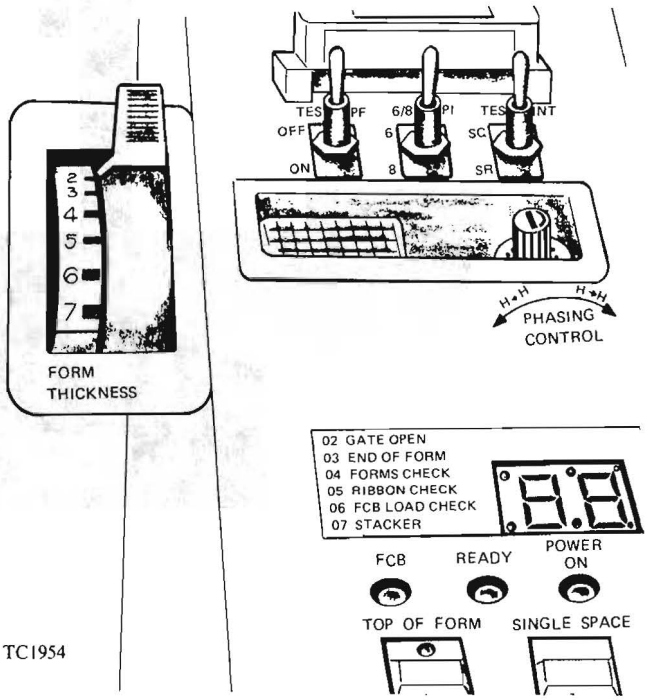
This lever increases or decreases the longitudinal stretch of forms. Use the forms clamp lever as follows:

- Move the Forms Clamp lever to "1" for 1 to 4-part forms.
- Move the Forms Clamp lever to "2" for 5 to 6-part forms.
- Move the Forms Clamp lever to "3" for thick paper like card stock.



Using the FORMS THICKNESS Lever

Move this lever from 1 to 7 to accommodate thickness of forms.

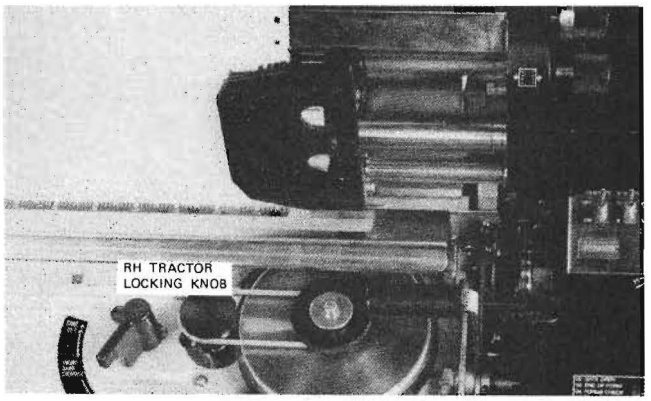


TC1954

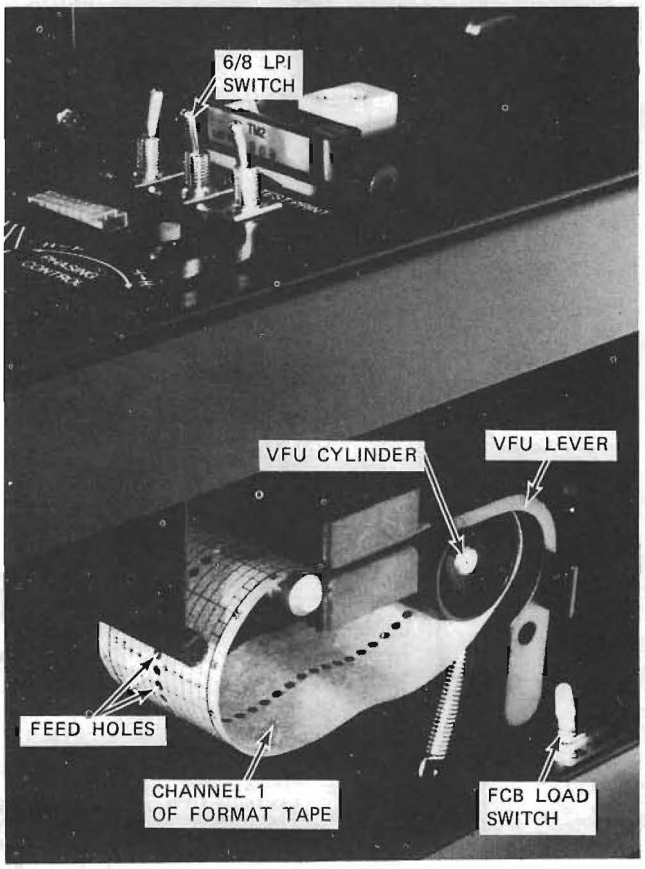
Using the Tractors

Adjust the righthand tractor to increase or decrease the crosswise stretch of forms, as follows:

- Loosen the locking knob of the righthand tractor and move the tractor outward to increase crosswise stretch, or inward to decrease crosswise stretch.



TC1955



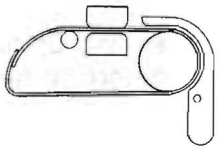
TC1956

Using the FCT (Format Control Tape) Reader

This procedure is necessary only on printers equipped with the optional FCT Reader.

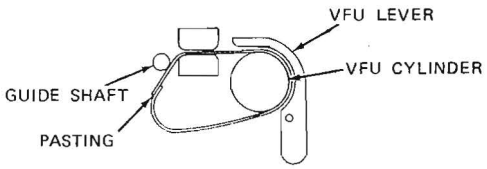
Use the following procedure:

1. If the START RESET indicator is lit, press the STOP switch; the START RESET indicator will turn off.
2. Pull the VFU lever away from the format tape (toward the back of the printer unit). Remove the format tape and install another format tape, as shown.



TC1957

Do not install the format tape this way.



TC1958

NOTE

When the power is on, the format tape rotates automatically and the data on it is stored in the format control buffer. Be sure to put a format tape in the FCT reader before pressing the POWER ON switch or operating the FCB LOAD switch; otherwise, the Status indicator displays "06" meaning a data error.

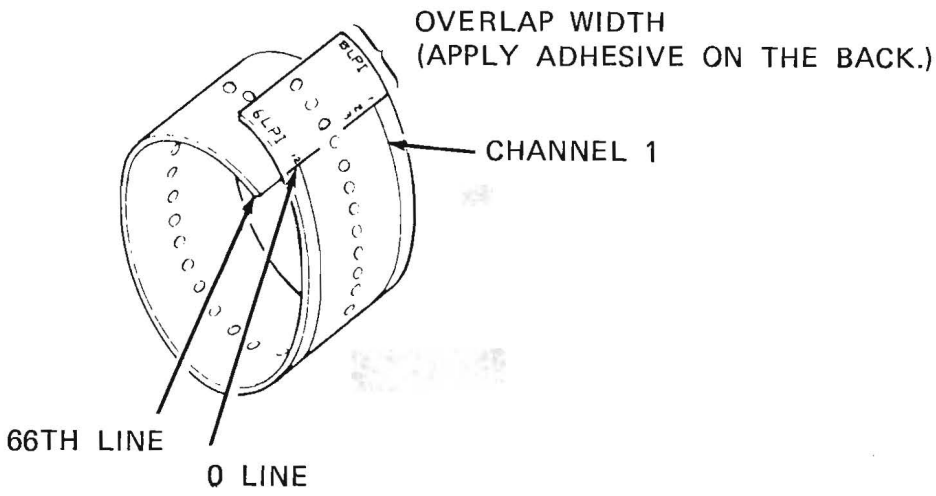
3. Be sure the feed holes of the format tape are fitted onto the pins of the VFU cylinder. Be sure channel 1 of the format tape is on the operator side.
4. Adjust the 6/8 LPI switch for desired line pitch. Close the VFU lever over the format tape and turn on the FCB LOAD switch. The format tape will rotate, and the FCB and TOP OF FORM indicators should turn on.

Preparing the Format Tape

The following information is necessary only when a printer is equipped with an FCT reader.

Format tape specifications are as follows:

1. Channel 1 must be used exclusively for TOP OF FORM.
2. A format tape 8 to 22 inches in length is recommended.
3. A square hole punch is required to prepare the format tape.
4. The longer the tape, the longer its life. If the format tape length required is less than 8 inches, multiply it by an integral number and prepare a format tape twice the length, duplicating the punched holes a second time.



TC1959

3 Using the FLS (Form Length Select) Switch

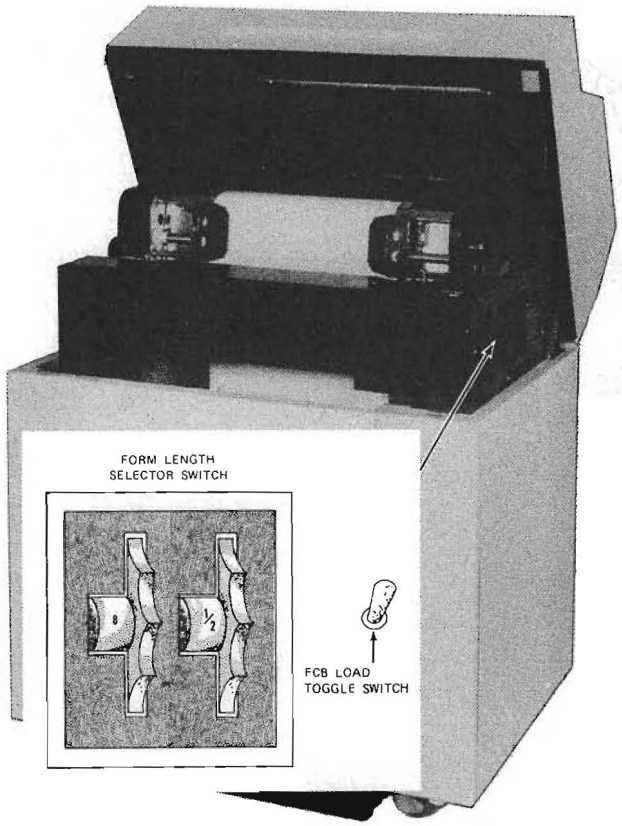
TC1960

Using the FLS (Form Length Select) Switch

The following procedure is used only in printers equipped with the Form Length Select option.

Use the following procedure to adjust to the form length desired:

1. If the START RESET indicator is lit, press the STOP switch before adjusting the form length.
2. Move the Form Length Select switch according to the length of forms, and adjust the 6/8 LPI switch to desired line pitch (''6'' or ''8'').



TC1961

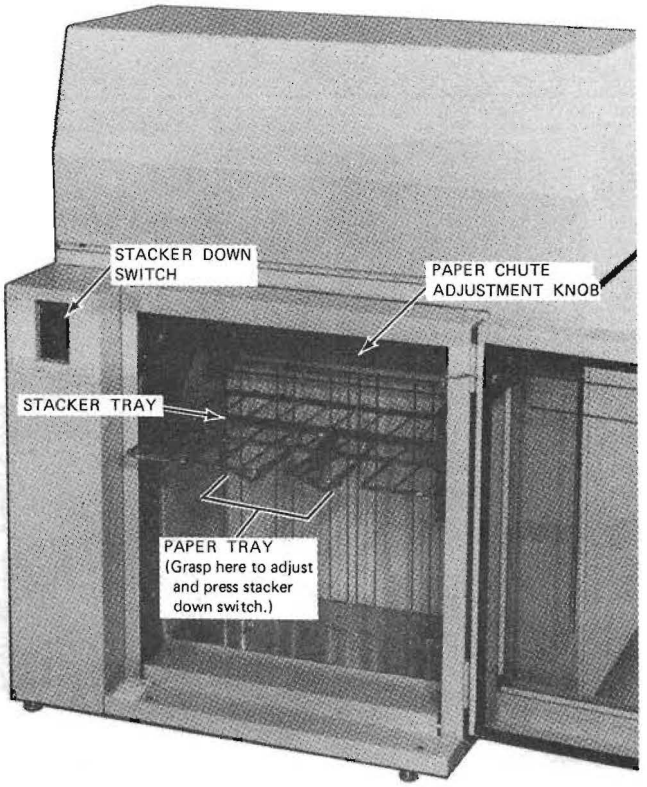
3. Turn the FCB LOAD switch to ON. The FCB and TOP OF FORM indicators should turn on.

Adjusting the Power Stacker

The following procedures are necessary only in a printer equipped with a power stacker.

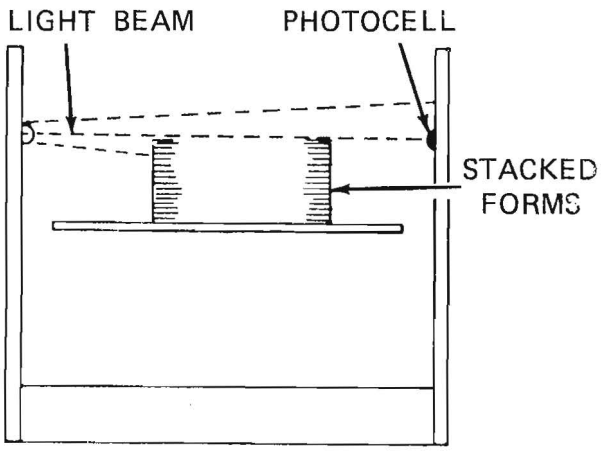
To adjust the paper tray, use the following procedure:

- Raise the paper tray by hand.
- Lower the paper tray by pressing the STACKER DOWN switch.



TC1962

- During printing, the paper tray moves down automatically as the paper stack increases.



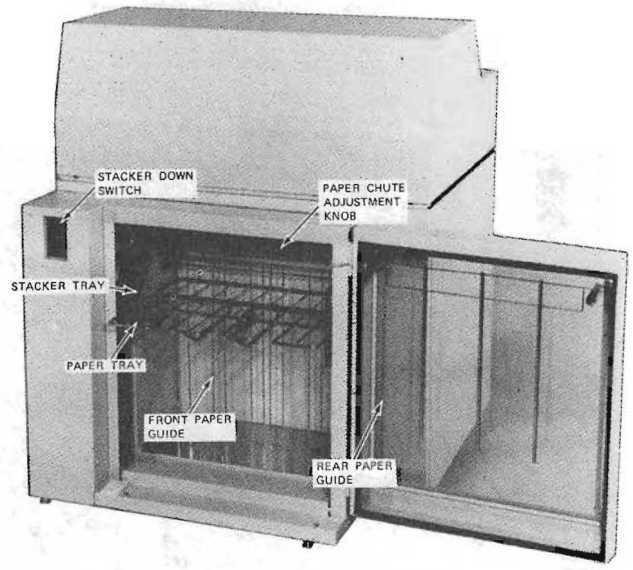
TC1963

CAUTION
If the paper tray is raised during the Power On state, the beams of the sensing device may be broken, causing an automatic downward movement of the paper tray.

To adjust the paper chute, use the following procedure:

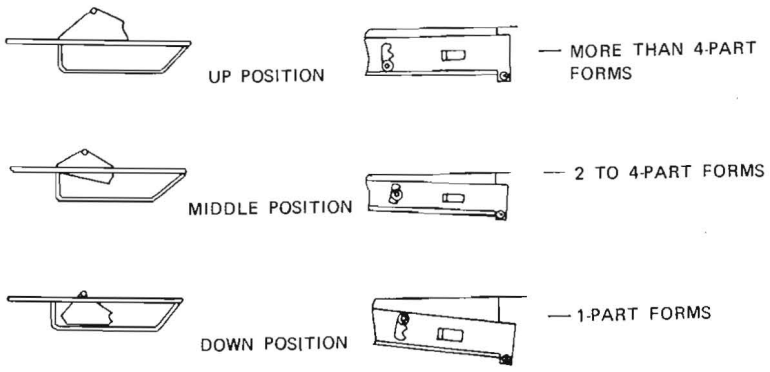
- To move the paper chute, hold the Paper Chute Adjustment knob and pull it right to raise it, and left to lower it.

3 Adjusting the Power Stacker



TC1964

Stacker Positions



TC1965

To adjust the stacker for various forms, use the following procedure:

1. For forms up to 356 mm (14 inches) long:
   1) Set the front paper guide and the rear paper guide to the length of the forms. The minimum possible setting is 203 mm (8 inches), even if forms are shorter.
   2) Push the paper tray to the top position.
   3) Set the stacker tray and paper chute to the required levels.
2. For forms over 356 mm (14 inches) long:
   1) Remove the rear paper guide from inside the rear cover and slide it into the tubes in the paper tray. This extends the paper tray to support the longer forms.
   2) Press the STACKER DOWN switch until the paper tray reaches the middle position. If stacking is untidy, lower the paper tray until it improves.
   3) Set the stacker tray and paper chute to the required levels.
   4) Leave rear cover open during printing.
3. For card stock and extra-stiff forms:
   1) Set front paper guide and rear paper guide to the length between the major folds of the card stock.
   2) Press the STACKER DOWN switch until the paper tray reaches the lowest position.
   3) Set the stacker tray to the down position.
   4) Set the paper chute to the up position.

NOTES

1. When a job starts, always guide the first few forms evenly onto the stacker tray by hand.
2. If the relative humidity is more than 65 percent or less than 20 percent stacking performance will be degraded.
3. It may be possible to improve results by varying the stacker settings on trial and error basis.

4

OPERATOR MAINTENANCE

This section describes maintenance methods used by the operator to ensure proper printer operation. Appendix A lists an operator maintenance schedule, as well as ordering numbers for cleaning equipment and materials.

4 Cautions/Printer Cabinet Cleaning

Cautions

Observe the following cautions:

CAUTION

1. Perform all maintenance tasks with POWER OFF.

2. Use only the recommended cleaning solutions.

3. Isopropyl alcohol is a combustible liquid and must be used and stored away from extreme heat or open flame.

Cleaning the Printer Cabinet

When: As required.

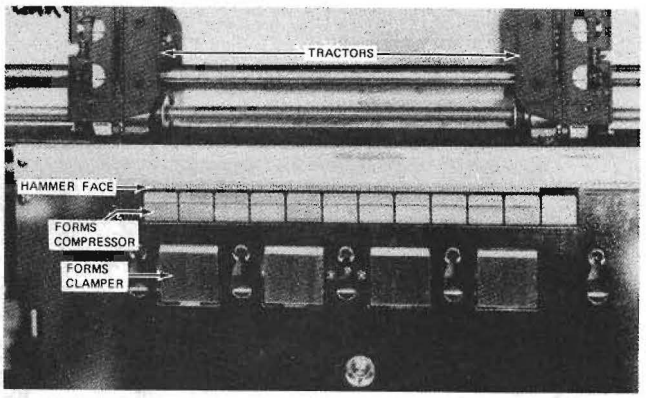
Exterior, painted cabinet surfaces should be wiped clean using a clean wiping cloth dampened with solvent detergent.

Cleaning the Forms Path Surface

Remove paper and ribbon particles from the tractor, hammer surface and forms compressor using a vacuum cleaner.

CAUTION

Be careful not to scratch the hammer face or bend the forms compressor with the nozzle end of the cleaner.

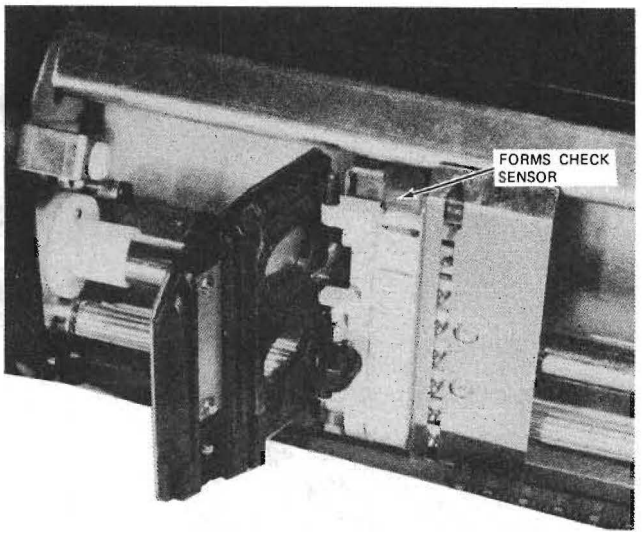


TC1966

Cleaning the Forms Check Sensor

When: At each 8 hour shift.

Clean the forms check sensor of the tractor with a cotton tip or wiping cloth. Exercise caution when cleaning this sensor to prevent scratching the surface, or breaking the sensor lens.



TC1967

Checking the Ink Ribbon

When: At each 8 hour shift.

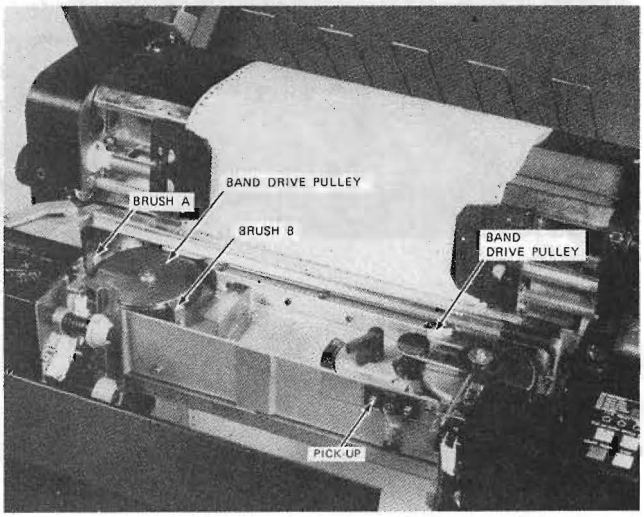
Check to see that the ink ribbon is free of breaks and creases, affording a clean print. Replace the ribbon when required to maintain acceptable print quality (refer to Changing the Ink Ribbon).

Cleaning the Ribbon Running Path

When: As required.

Use the following procedure:

1. Remove ribbon dust with a vacuum cleaner.
2. Remove ribbon dust left in brushes A and B, and the pickup, with a piece of thick paper such as punched card stock.



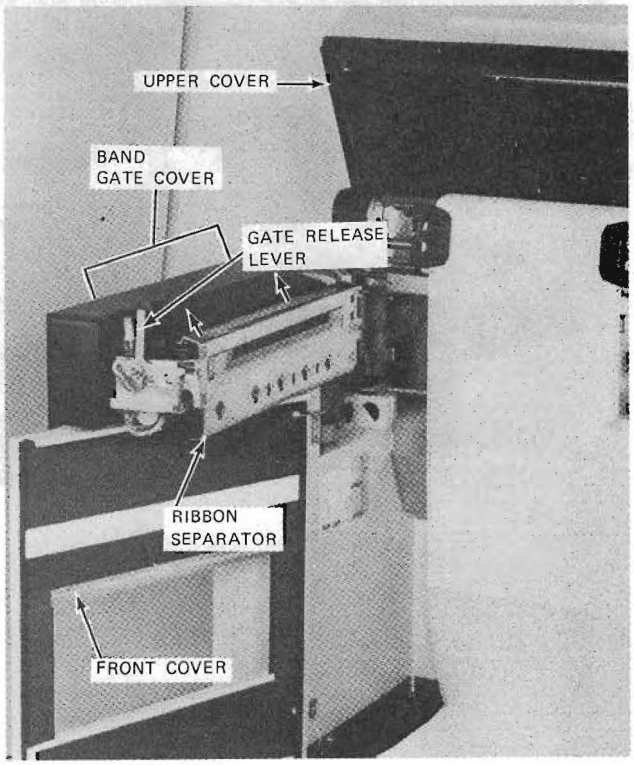
TC1968

Changing the Ink Ribbon

When: As required.

Use the following procedure:

1. If the START RESET indicator is lit, press the STOP switch (indicator should turn off).
2. Open the upper cover and the front cover.
3. Unlock the gate release lever and open the band gate. Open the gate cover and the ribbon separator.



TC1969

4. Unpack a new ink ribbon and put on vinyl gloves to protect hands from ink. Be sure the print band is not rotating before proceeding.
5. Grasp the upper roll ribbon and the lower roll ribbon and push them toward the hinge. Remove the old ribbon.

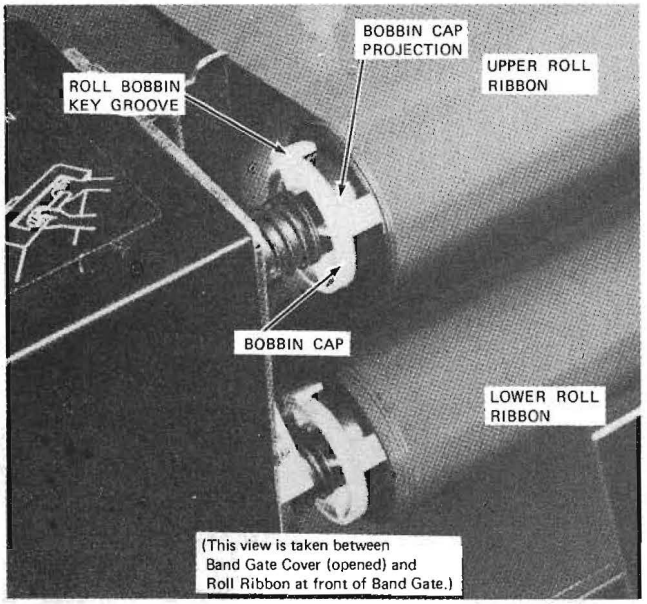
CAUTION
When changing the ink ribbon, be sure to clear the ribbon feed unit of ribbon dust.

6. Install the new ink ribbon:
   1) Set the key groove of the roll bobbin on the projection of the bobbin cap securely.
   2) Turn the bobbin cap to stretch the ink ribbon.

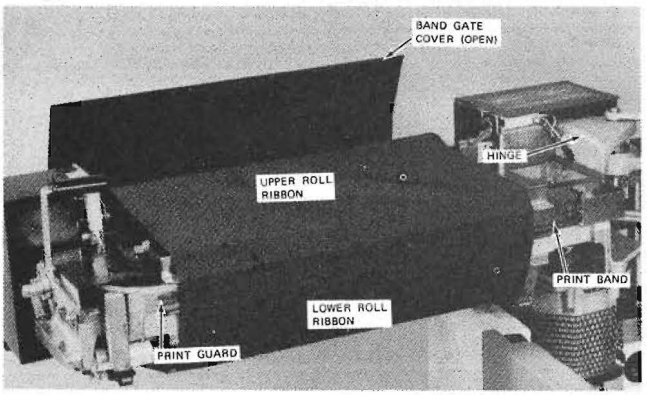
CAUTION
Be sure to insert the ribbon guard between the ribbon and the print band to prevent the ribbon end from being pulled in the running direction of the print band.

7. Close the gate cover and the band gate.

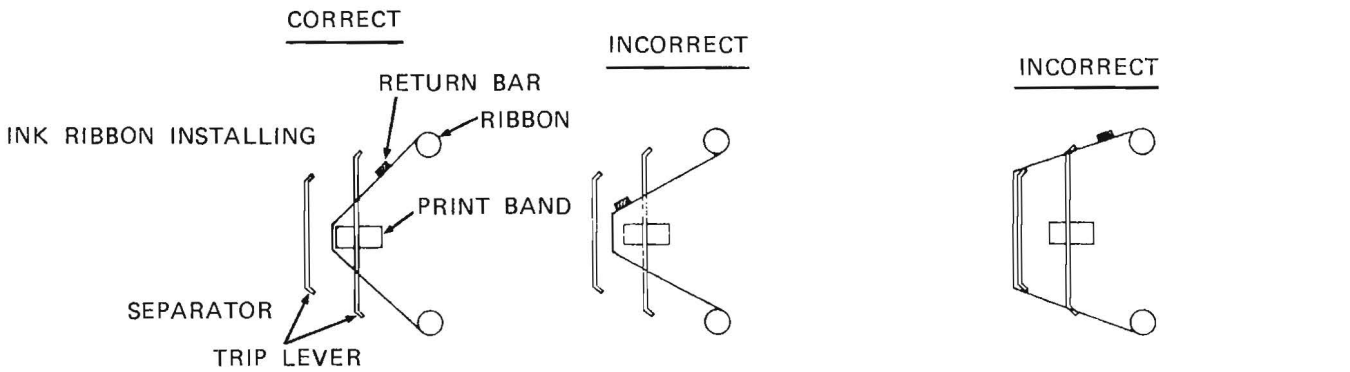
CAUTION
Prior to switching on the machine, be sure the ink ribbon is fully stretched, otherwise, it may be damaged.



TC1970



TC1971



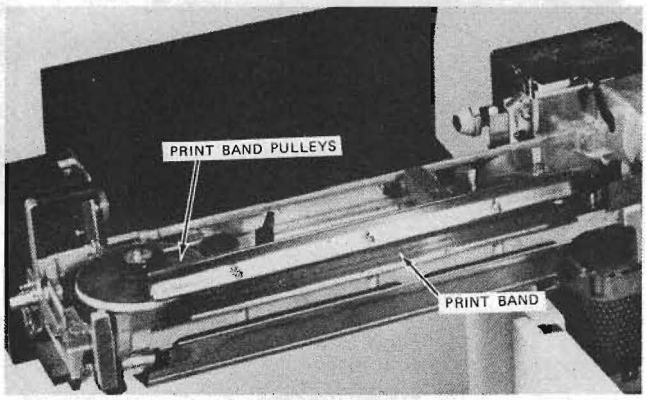
CAUTION:

RIBBON INSTALLED WRONG RETURN BAR IS OUT OF POSITION.

RIBBON DRAPED OVER SEPARATOR RIBBON IS LOOSENED.

TC1972

4 Print Band Care



TC1973

Cleaning the Print Band

When: As required (when the ribbon is changed).

Use the following procedure:

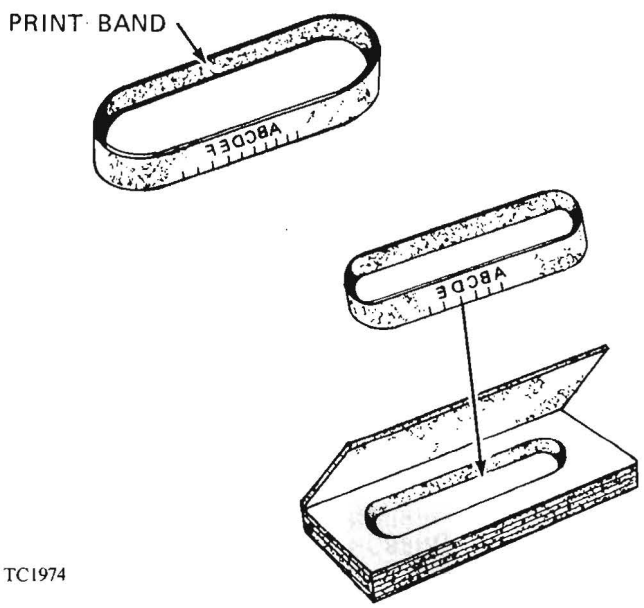
CAUTION

- Handle the print band with care to prevent injury or damage to the band.

- Before removing the band, have a clear, flat work area to place the print band on.

- While brushing and cleaning the print band, prevent bending or distorting the print band.

1. Remove the ink ribbon (refer to Changing the Ink Ribbon).
2. Remove the print band (refer to Changing the Print Band).
3. While providing support with one hand, brush (using stiff bristle brush) both sides of the print band to remove ink build-up.
4. With a dry wiping cloth, wipe off both band pulleys and the platen.
5. With a wiping cloth, dampened with isopropyl alcohol, remove all remaining ink film from the print band.
6. Replace the print band and the ink ribbon.



TC1974

Changing the Print Band

When: As required.

Use the following procedure:

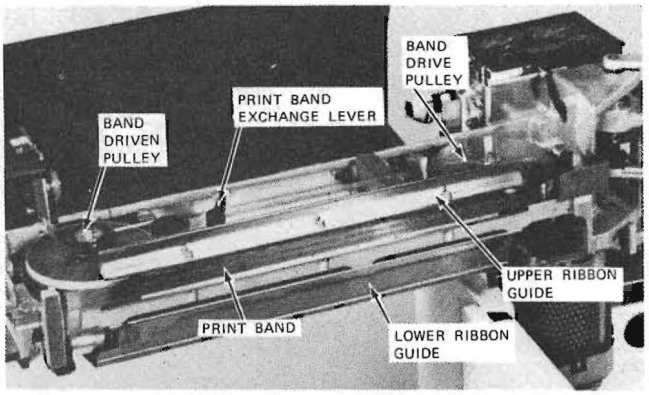
CAUTION

- When changing the print band, be sure to turn the power OFF and make sure that the print band has stopped rotating.

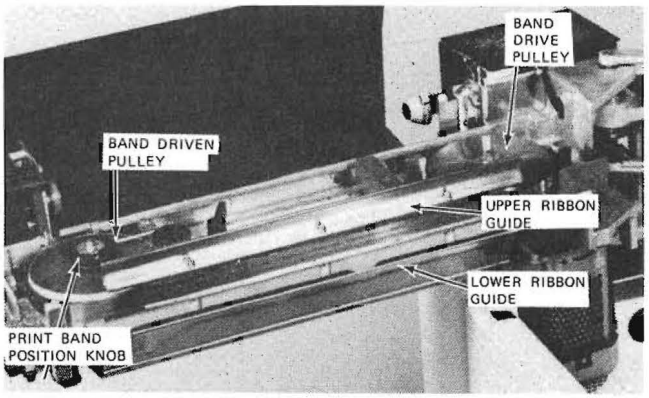
- If the print band is folded, never use it as it may break and damage other parts. If folded, the band will not give the best print quality. Store print bands with care.

- When storing the print band, store it in the proper container.

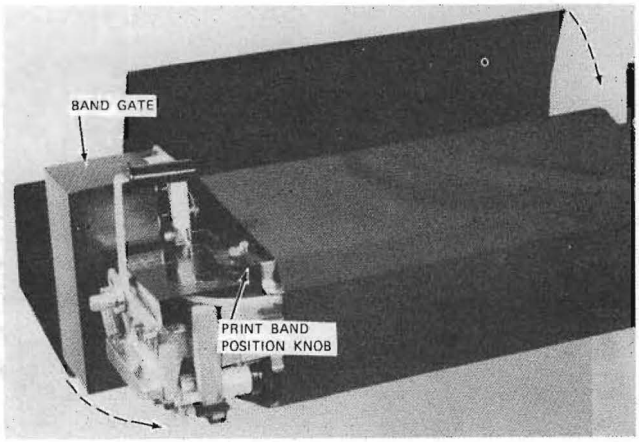
1. Turn power OFF. Remove the ink ribbon (refer to Changing the Ink Ribbon).
2. Remove the band cover. Move the print band exchange lever to the TAKE OFF side; the print band will loosen.
3. Lift the print band slowly and remove it from the band drive pulley and band driven pulley.
4. Place a new print band slowly over the band drive pulley and band driven pulley.
5. Be sure the print band is placed right side up with **Font** up and **Character Mark** down.
6. Be sure the print band is not stranded on the edge of the upper ribbon guide or lower ribbon guide.
7. Move the print band exchange lever to the SET UP side.
8. Rotate the band drive pulley by hand and be sure print band rotates smoothly making no abnormal sound.
9. If the edge of the print band contacts the ridge of the upper ribbon guide or lower ribbon guide, move the print band up and down by turning the print band position knob.



TC1976

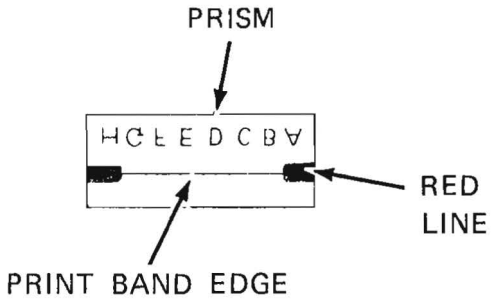


TC1977



TC1978

10. Install the ink ribbon (refer to Changing the Ink Ribbon), and close the band gate.
11. Turn MAIN AC POWER switch to ON; the print band will start rotating.
12. Turn the print band position knob so that the edge of the print band is located in the center of the red line on the prism.

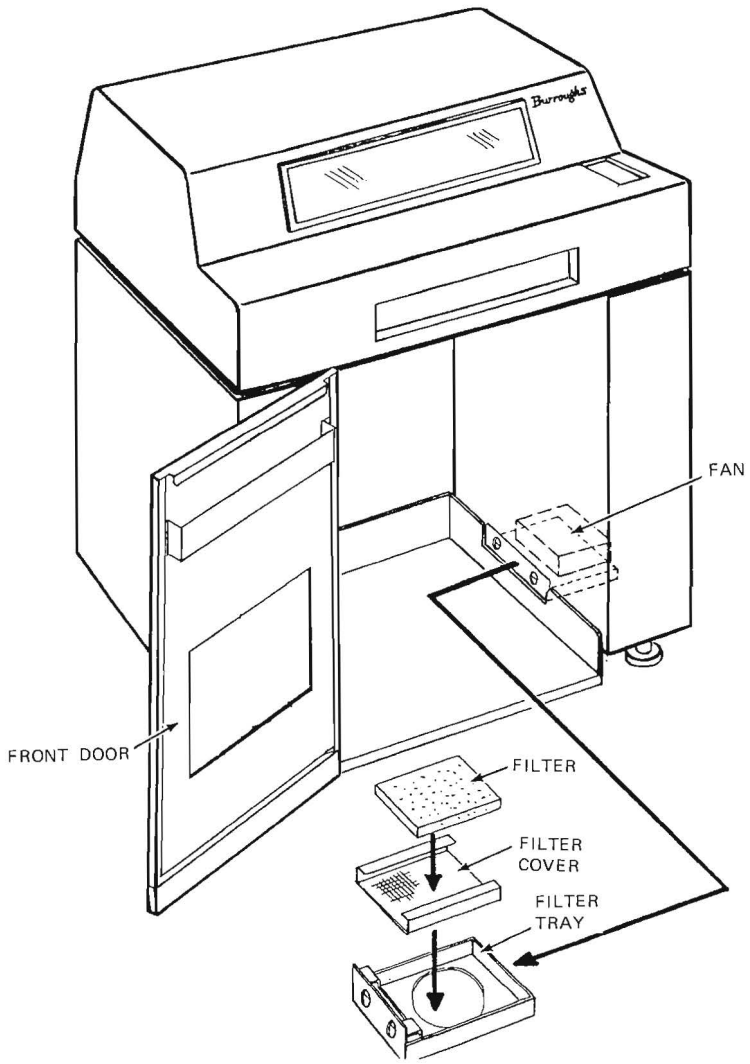


TC1979

FAN FILTER

Use the following procedure:

1. To access the fan, open the front cover of the printer and remove paper from the hopper. The fan is located on the right side of the printer.
2. Pull out the filter tray and remove the filter.
3. Immerse the filter in a mild detergent solution and squeeze excess moisture from the filter.
4. Compress the filter into a clean, dry cloth to remove any remaining moisture and place the filter in the filter tray. Place the filter tray back into the operating position.



TC1980

5

OPERATOR TROUBLESHOOTING

If the printer will not operate look for the number displayed on the status indicator. The message indicates what the problem is, as listed below. This table includes other unit problems and the heading under which the problem can be resolved:

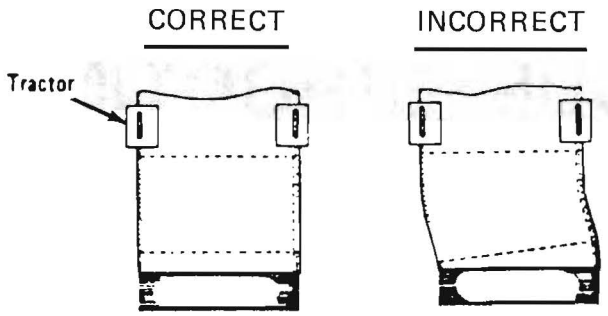
Status Indicator Displays	Problem - Unable to Operate Printer	Refer to (In this Section)
03	Possibly end of forms in printer.	"03" Displayed (End of Form)
04	There is a paper jam	"04" Displayed (Paper Jam)
05	Unit is calling for a ribbon check	"05" Displayed (Ribbon Check)
06	Format Control Buffer loading needs to be checked	"06" Displayed (FCB Load Check)
07	There is a problem in the power stacker.	"07" Displayed (Stacker Check)
18	Format control buffer data should be checked	"18" Displayed (FCB Data Check)
22	The hammer fan has stopped.	"22" Displayed (Hammer Fan Stop)
31	The band speed should be checked.	"31" Displayed (Band Speed Check)

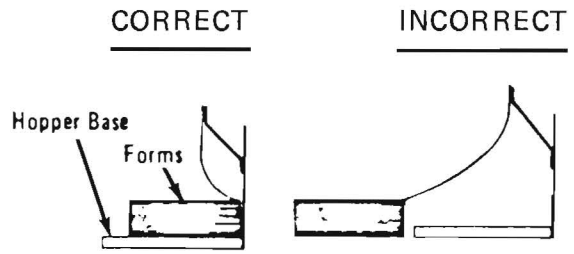
TC1981

Miscellaneous	Refer To (In this section.)
No POWER ON light (including "00" displayed on the Status indicator.	No POWER ON Light ("00" Displayed)
Faulty stacking of forms in the power stacker.	Faulty Stacking of Forms in Power Stacker
Faulty stacking of forms (without the power stacker).	Faulty Stacking of Forms (Without Power Stacker)
Ribbon is folded or wrinkled.	Ink Ribbon is Folded/Wrinkled
Print quality needs improving.	Print Quality
If there are any problems with the printer, that are not answered in the text, a Burroughs Field Engineer should be contacted for assistance.	

TC1982

5 03 Displayed (End of Form)





TC1983

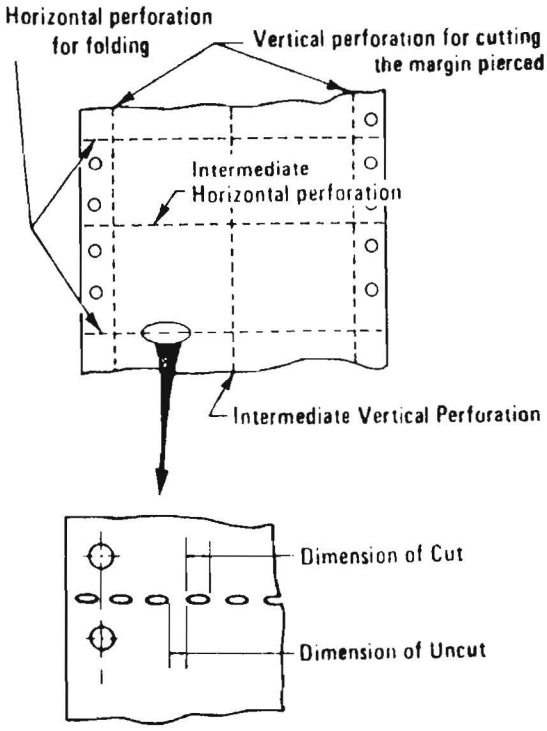
"03" Displayed (End of Form)

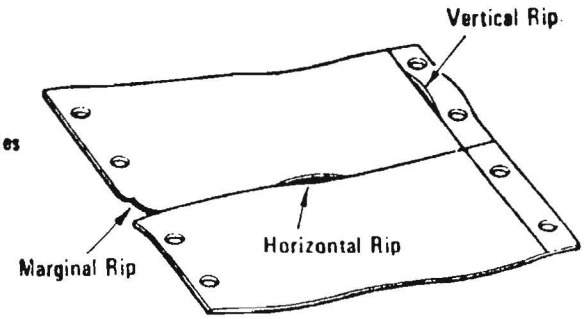
When "03" is displayed on the Status indicator, replace the forms, if necessary, according to Forms Loading, and check the following:

1. Be sure the paper supply in the hopper is feeding into the tractors and printer directly and not at an angle.

2. Be sure the paper supply is in the hopper area, not outside it.

3. Be sure the forms are within specifications, as follows:





TC1984

Be sure perforations are made with uncuts and cuts as specified.

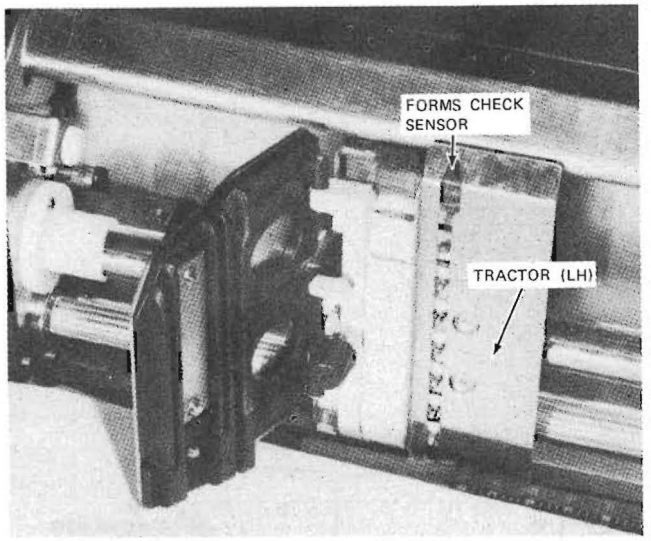
Perforation		No. of parts	Uncut dimension	Cut dimension
Horizontal perforation	Horizontal perforation for folding	1 ~ 4	Over 1 mm	2 mm ~ 3 mm
		5 ~ 6	Over 1 mm	Under 3 mm
	Intermediate horizontal perforation	1 ~ 6	Over 1 mm	Under 2 mm
Vertical perforation	Vertical perforation for cutting off the feed hole margin	1 ~ 4	Over 1 mm	2 mm ~ 3 mm
		5 ~ 6	Over 1 mm	2 mm ~ 4 mm
	Intermediate vertical perforation	1 ~ 6	Over 1 mm	Under 2 mm

4. If all of the above are checked and approved, and "03" is still displayed, ask a Field Engineer for assistance.

"04" Displayed (Forms Check)

When "04" is displayed on the Status indicator, check the following:

1. If the forms are not stacking correctly, refer to Faulty Stacking of Forms.
2. If the marginal holes are irregular, refer to Adjustment of Paper Tension, and also to Checking of Marginal Holes for Irregularity.
3. The forms check sensor may be covered with paper particles; refer to Forms Check Sensor Cleaning to clean it.
4. If the forms are ripped at the perforation, refer to Adjustment of Paper Tension, and check that the forms are within specification as in appendix B.
5. If sheets come loose from the tractors, refer to Adjustment of Paper Tension and check that forms conform to specification as in appendix B.
6. If tracing paper is used, use the kind with low transparency. Also check the marginal holes for irregularity.
7. Do not place new forms over old forms on the tractors (remove old forms first).
8. Be sure the tractors are not exposed to strong light (ie., sitting in direct sunlight).
9. If the forms are stacking incorrectly, check them with the following table:



TC1985

Check for Irregularity	Allowance
Marginal hole center -	Less than 0.8 mm (0.032 in.) vertically and horizontally.
Forms edge -	Less than 1.5 mm (0.042 in.).
Horizontal perforation -	Less than 0.5 mm (0.02 in.)
Vertical perforation -	Less than 1.5 mm (0.042 in.)

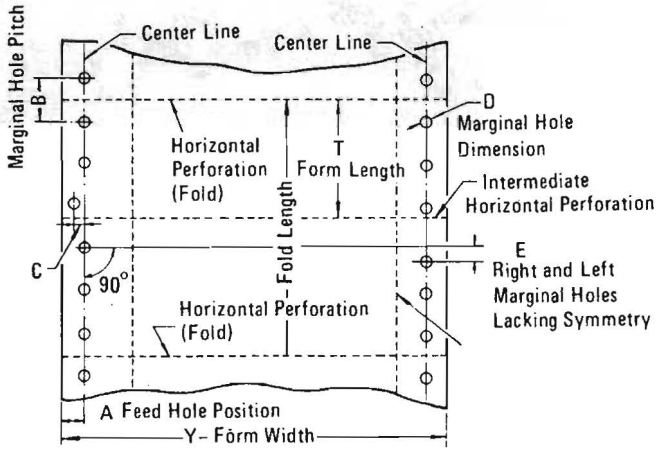
TC1986

10. Check the forms for defects if problems occur regularly with a certain type of paper. (See appendix B, Special Forms and Paper.) The person responsible for ordering forms should be made aware of problems.

Special Forms and Paper.) The person responsible for ordering forms should be made aware of problems.

NOTE

Before using special forms and paper, such as baggy forms, label paper, tracing paper, hect-carbon paper, etc., check them on the printer to see that they do not jam, provide good print and are satisfactory in every other respect.



TC1987

11. If the ink ribbon is wrinkled, refer to Ribbon Folded/Wrinkled Ribbon to fix the ribbon.
12. Be sure the forms are properly placed in the hopper (refer to "03" Displayed - End of Form).
13. If a problem still exists, ask a Burroughs Field Engineer for assistance.

Checking Marginal Holes for Irregularity

The following dimensions and weight specifications should be followed:

1. The marginal hole pitch (B, in the example) should be less than 12.7 ± 0.1 mm (0.5 ± 0.044 in.); the marginal hole diameter should be 4 ± 0.1 mm (0.16 ± 0.004 in.); and the deviation (C) from the center line of marginal holes be less than 0.1 mm (0.004 in.). Check a form with several irregularly-punched holes by laying it over a more usable form.

2. The weight of 1-part forms should be more than 55 kg (16 lb).

Checking Parts Fastening

Check the following:

1. Be sure that forms with multiple parts are fastened (collated) as follows:

No. of Parts	Fastening Material	Fastening Position
2 - 3	Paste	Near marginal holes on the right side; preferably one side only.
	Paper Staples	Near marginal holes on both sides.
4 - 6	Paste	Near marginal holes on the right side; preferably on one side, but pasting on both sides is allowed depending on the type of forms. Use of paper staples should be avoided as a general rule.

TC1988

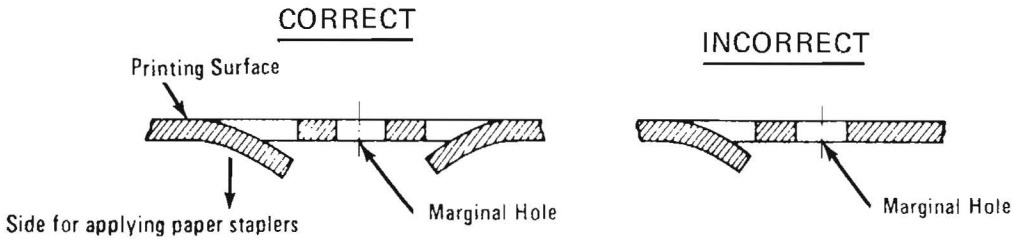
CAUTION

For 4 to 6-part forms that have fastening materials on both sides, be sure that the forms are free of creases and even in thickness to assure efficient, damage-free usage in the printer.

If staples are used on 4 to 6-part forms (it is preferred that they not be used), be sure the staples are on the left and right sides of the form, along with paste. See that the paper stapled portion does not exceed 0.6 mm (0.024 in.) thickness.

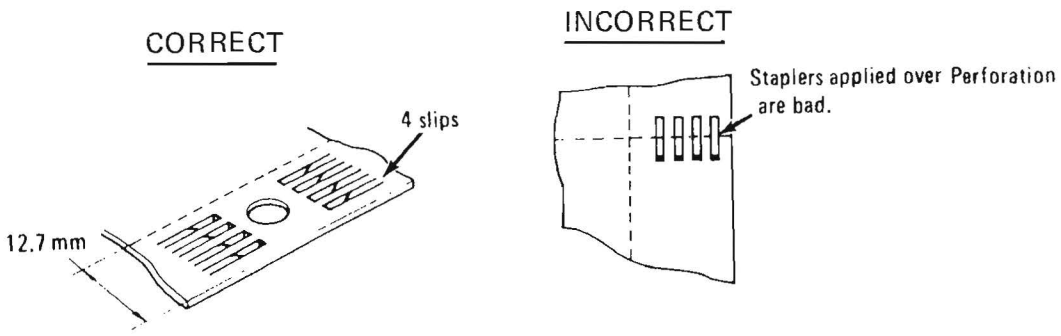
Never use metal staples. They are apt to damage the ink ribbon and the machine.

2. Be sure paper staples are applied on both sides of a marginal hole from the printing surface.



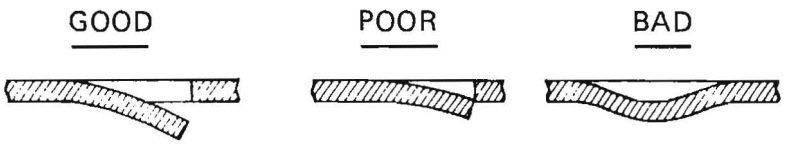
TC1989

3. Be sure paper staples are applied each with over four slips, and are clear of the perforation.



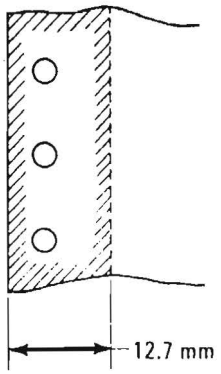
TC1990

4. Be sure staples are fully pushed down and applied at intervals of four or five holes.



TC1991

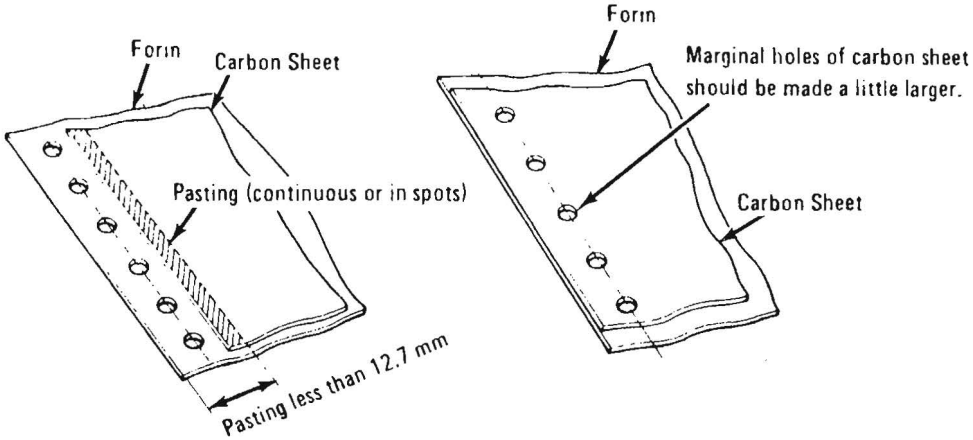
5. Be sure pasting is less than 12.7 mm (0.5 in.) from the edge of the sheets and variations in thickness of the portion pasted are 0.2 mm (0.008 in.) or less.



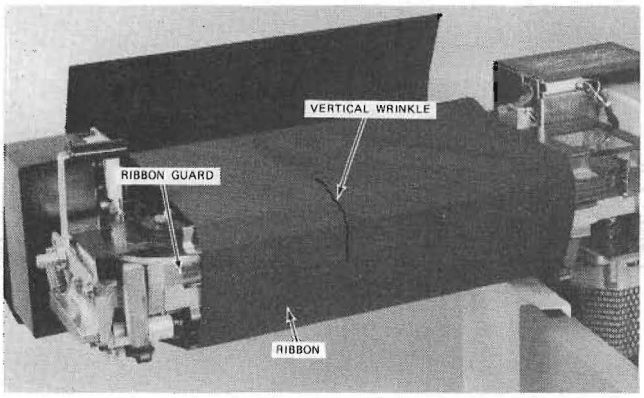
TC1992

6. Be sure the portion pasted is even and free of creases.

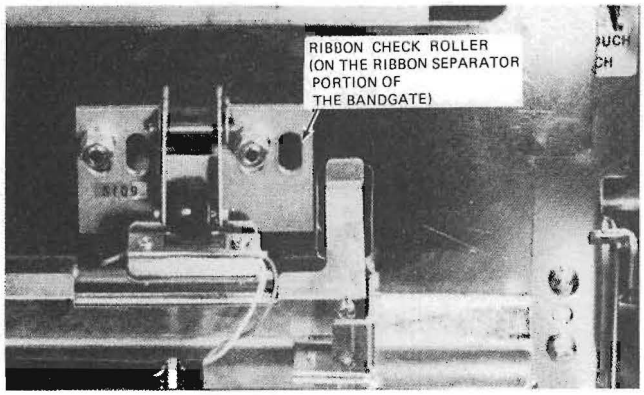
7. Be sure a 1-time carbon sheet is fastened in the manner shown and at one side only.



TC1993



TC1994



TC1995

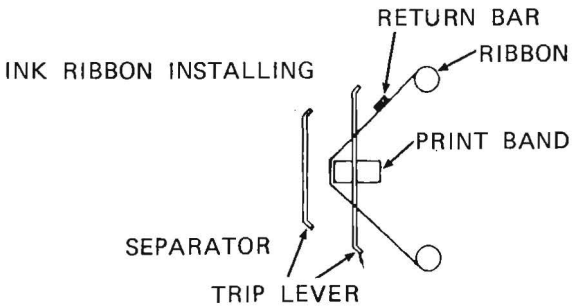
"05" Displayed (Ribbon Check)

Check for the following:

1. If the edge of the ribbon comes off the ribbon check roller, the ink ribbon may be worn out and should be replaced with a new one. Or, the ribbon guard may need to be placed properly under the ribbon.
2. If the ribbon has vertical wrinkles in it, refer to Ribbon is Folded/Wrinkled to correct the problem.
3. Be sure the ribbon is installed correctly as in example A. Example B shows how a ribbon is installed incorrectly.

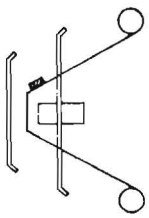
Example A:

CORRECT



CAUTION:

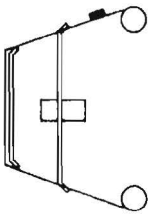
INCORRECT



RIBBON INSTALLED WRONG RETURN BAR IS OUT OF POSITION.

Example B:

INCORRECT



RIBBON DRAPED OVER SEPARATOR RIBBON IS LOOSENED.

TC1996

4. If the ribbon check roller is covered with ribbon dust, remove ribbon dust with a dry cloth to ensure that the roller runs properly.
5. For proper operation, check that the ink roll is in the following condition:

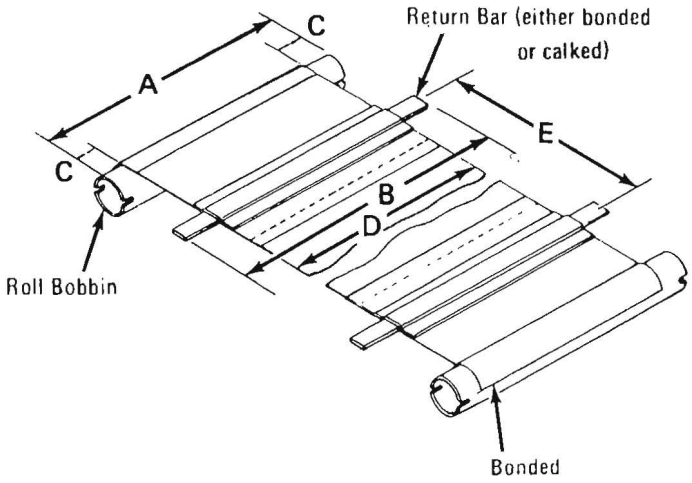
   1) The ink roll is within industry standards.
   2) The return bar is securely bonded or calked.
   3) Adhesion at the roll bobbin and the ink ribbon is satisfactory.
   4) Adhesive should not spread over the ink ribbon unit.
   5) The ink ribbon is not torn or frayed.
   6) The ink ribbon is wound neatly on the roll bobbin.

NOTE

The ink ribbon is considered "used up" when print becomes illegible - faded type and distorted characters because of ribbon tears and creases. The life span of an ink ribbon varies according to its use. To increase ribbon life span, clean the printer periodically and avoid excessive printing in the same column only.

CAUTION

Replace the ink ribbon when it is "used up." This prevents character ommissions, illegibility, and damage to the printer.

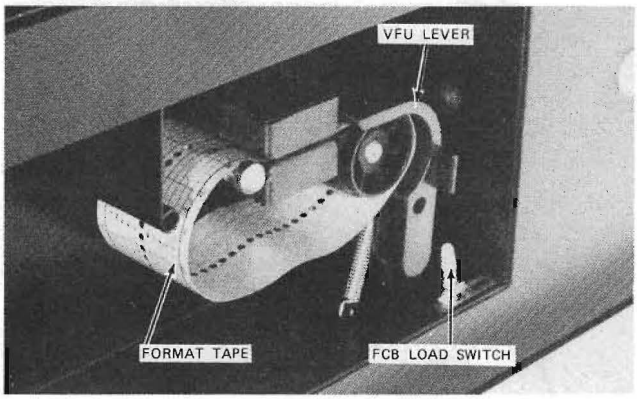


TC1997

"06" Displayed (FCB Load Check)

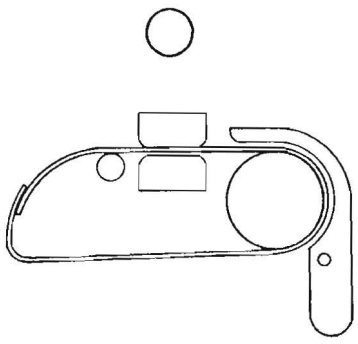
When "06" is displayed on the Status indicator, check the following:

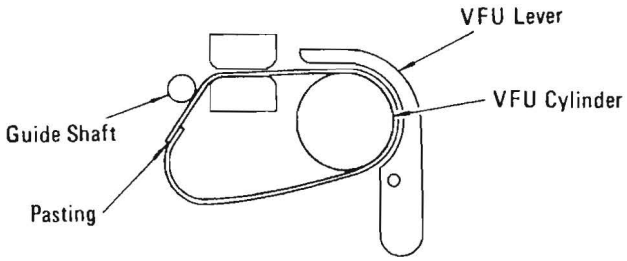
1. If the VFU lever is open, close it and turn the FCB LOAD switch ON.
2. Be sure the ink ribbon is installed correctly; tape ends are pasted together properly and the tape is threaded to run above the guide shaft, not below it. Turn the FCB LOAD switch ON.
3. The format tape should have square holes; if not, refer to Preparing the Format Tape. Check the format tape appearance with the following:
   1) Channel 1 is used exclusively for TOP OF FORM.
   2) Pasting is made in the proper direction (refer to Preparing the Format Tape).
   3) The feed holes and square holes in the pasted portion are both concentric (have a common center point).
4. Be sure the 6/8 LPI switch is at the desired selection.
5. Be sure the format tape meets specifications (if it doesn't, remove and replace it).
6. If, after checking the above, the Status indicator still displays "06," ask a Burroughs Field Engineer for assistance.



TC1998

Installing of Format Tape





The tape ends are pasted upside down.

The tape is put wrongly so as run under the guide shaft.

TC1999

"18" Displayed (FCB Data Check)

If "18" is displayed on the Status indicator, check the following:

1. If square holes are not punched on the channel designated by the program, prepare a new format tape (refer to Preparing the Format Tape) and press the FCB LOAD switch. 2. If the program designates a channel in spite of no data being stored in the FCB, prepare the program again.
3. Check that the tape has been prepared correctly and meets industry standards (refer to Preparing the Format Tape).
4. If all of the above are checked and "18" is still displayed, ask a Burroughs Field Engineer for assistance.

"07" Displayed (Stacker Error)

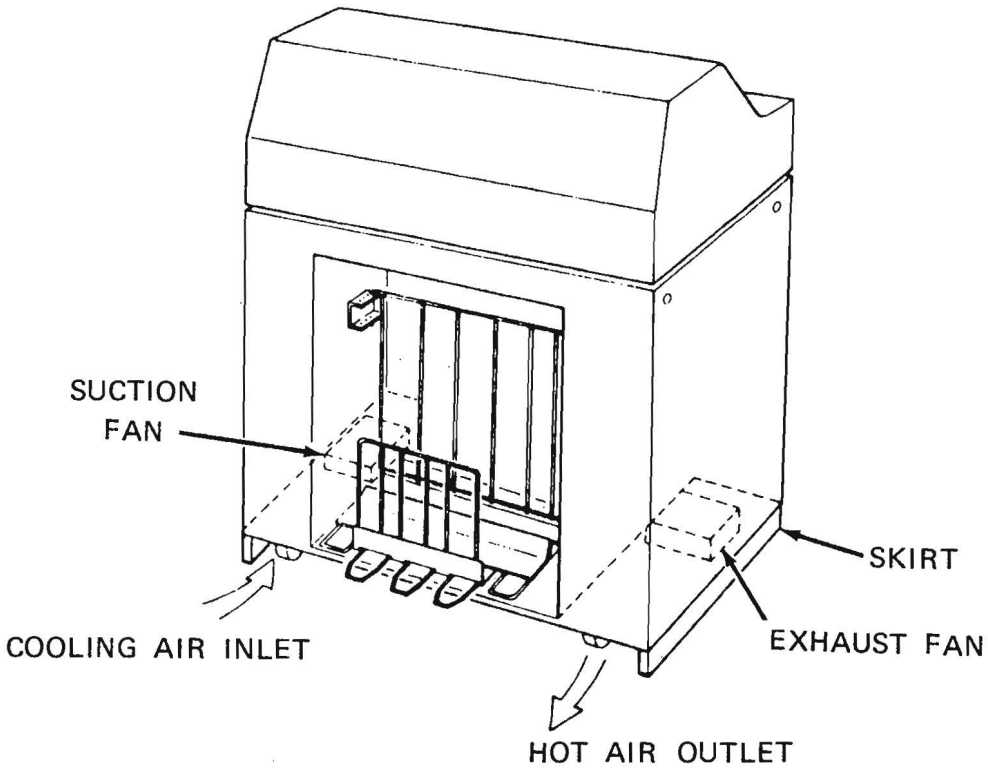
The following procedure is used only in printers equipped with the power stacker. Check the following:

1. The stacker may be filled with forms; remove them from the stacker.
2. If the forms are stacking improperly, refer to Faulty Stacking of Forms in Power Stacker, or "04" Displayed (Forms Check), or Adjusting the Power Stacker to remedy the problem.
3. If the problem is still not corrected, ask a Burroughs Field Engineer for assistance.

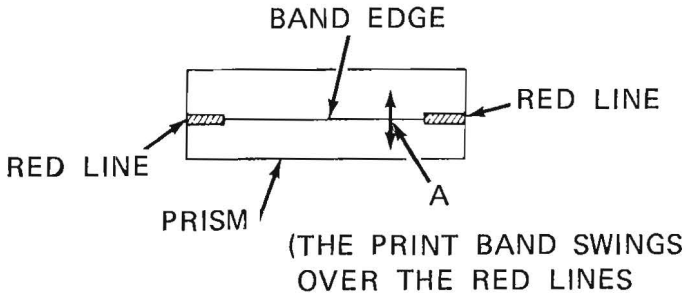
"22" Displayed (Hammer Fan Stop)

If "22" is displayed on the Status indicator, check the following:

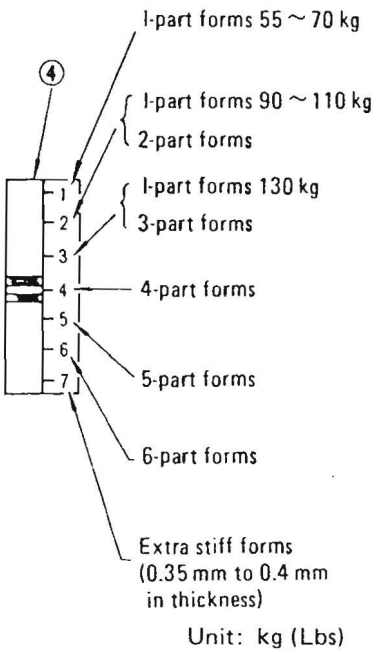
1. If the suction fan is blocked with paper, move paper away from it. Wait two to three minutes and turn the POWER ON switch OFF, then ON.
2. If the cool air inlet and the hot air outlet are blocked move the obstruction, wait two to three minutes and turn POWER ON switch OFF, then ON.
3. If the floor below the exhaust fan has some sort of opening for an underfloor air-conditioning unit, relocate the floor opening or the printer.
4. If the above has been checked and "22" is still displayed, ask a Burroughs Field Engineer for assistance.



TC2000



TC2001



TC2003

"31" Displayed (Band Speed Check)

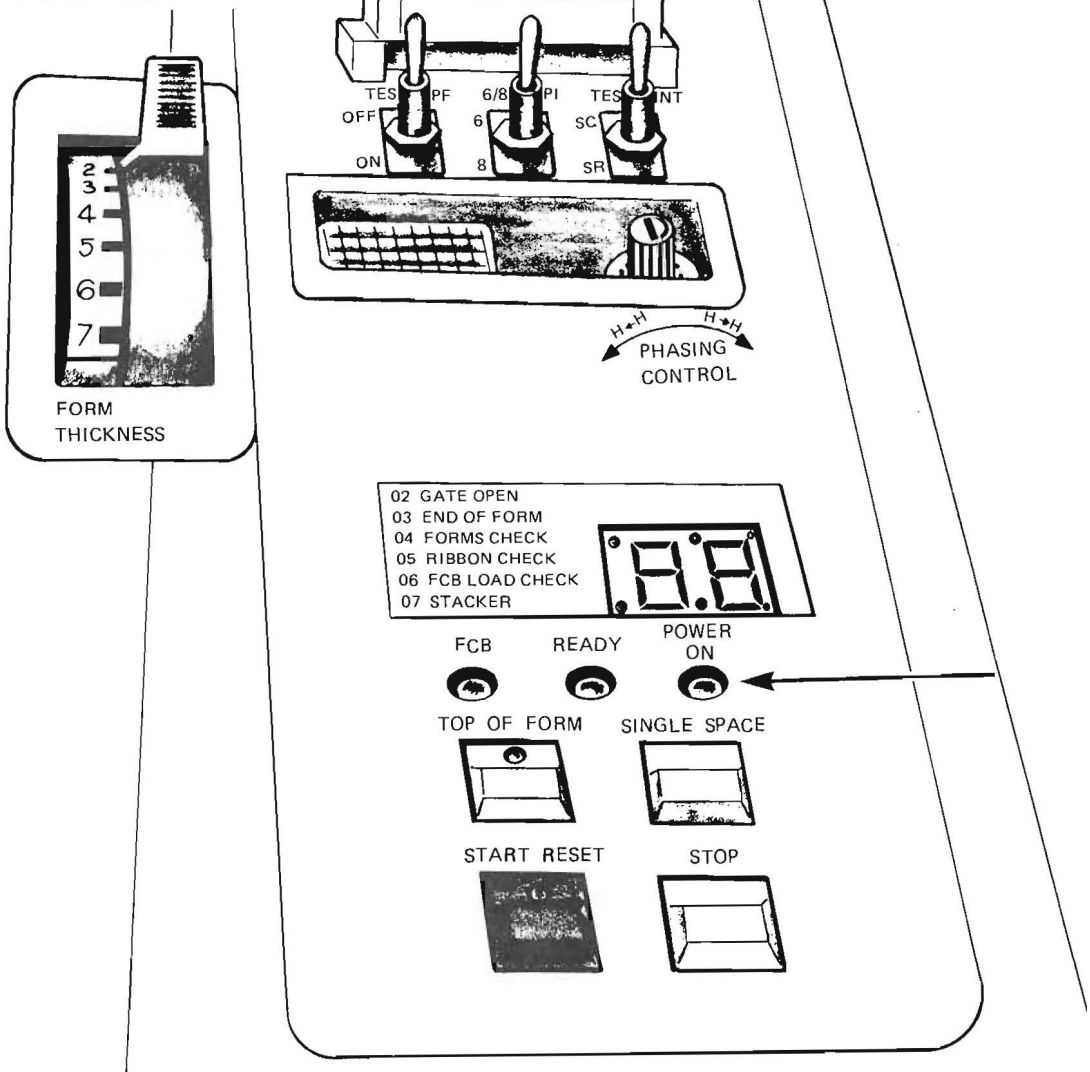
If "31" is displayed on the Status indicator, check the following:

1. Be sure the band edge swings in direction A, shown in the illustration. (Refer also to Ribbon Running Path Cleaning.)
2. If the band edge is off the red line, turn the Print Band Position knob so that the band edge comes into the red line.
3. Check that the FORM THICKNESS lever is at the correct value.
4. Be sure the ink ribbon is not folded or wrinkled. (Refer to Ink Ribbon Changing to correct the problem.)
5. Check the forms with the Forms Specifications given in appendix B.
6. Be sure the proper ink ribbon is used, and check parts requiring periodical replacement, such as: the print band, band drive/driven pulley, and the band stabilizer.
7. If the above are checked and "31" is still displayed, ask a Burroughs Field Engineer for assistance.

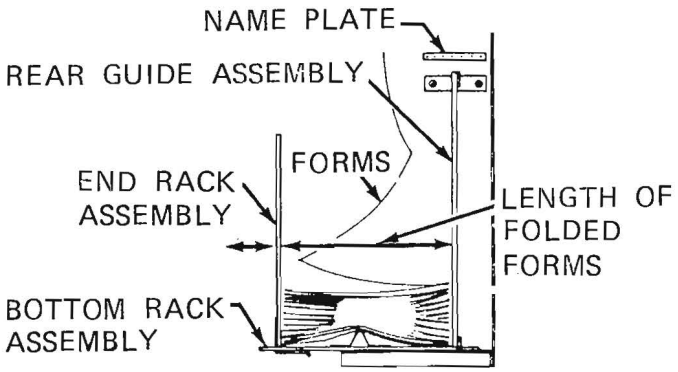
No POWER ON Light (''00'' Displayed)

If the POWER ON indicator does not light and ''00'' is displayed on the Status indicator, check the following:

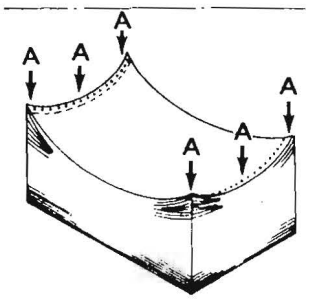
1. Be sure the MAIN AC POWER switch is ON.
2. Check the input power: Be sure the line cord plug is in the socket and that the circuit breaker is in operation.
3. If the print band is not rotating, or if the console is overheated, check that the cooling system is operating. (Refer to ''22'' Display - Hammer Fan Stop.)
4. If the above is checked without remedying the problem, ask a Burroughs Field Engineer for assistance.



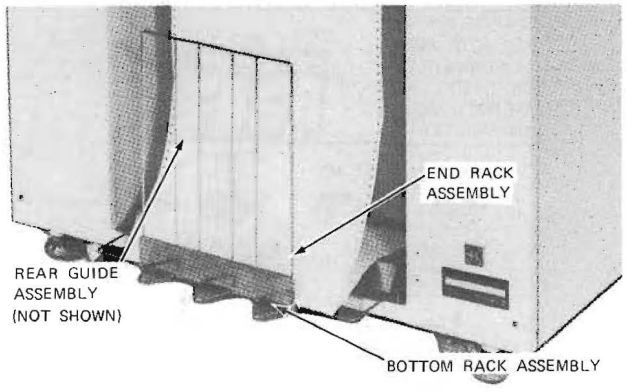
TC2004



TC2005



TC2006



TC2007

Faulty Stacking of Forms

The following text is for printers without the power stacker. Correct use of this forms stacker is as follows:

- The rear guide is set by adjusting it to the number on the name plate that corresponds with the length of the folded forms.
- Adjust the end rack assembly to fit the length of the folded forms.
- When paper stacks with the center concave, as shown, press the outer edges down to flatten it.
- Do not pile forms on the bottom rack assembly except when necessary. Remove them each time one job is finished.

Correct stacking problems as follows:

1. If the forms are folding incorrectly: Correct folding so that paper stacks in the proper direction.
2. If characters are printing on the perforation, adjust the printing position (refer to Adjustment of Printing Position).
3. If the marginal holes are exceedingly irregular, refer to Adjustment of Paper Stretch to attempt adapting to forms needs. Refer also to "04" Displayed (Paper Jam).
4. If there is an intermediate horizontal perforation in the form, refer to "03" Displayed (End of Form) to correct any problems.
5. If lightweight forms are used, refer to "31" Displayed (Band Speed Check) to adapt printer for the forms.
6. Check the forms being used with the specifications given in appendix B.
7. If the air from the air conditioner blows against the stacker, consult a Field Engineer to either change the direction of the air flow, or to relocate the printer.
8. Consult a Field Engineer regarding unfixable problems.

Faulty Stacking of Forms in Power Stacker

Check the following:

1. Be sure the stacker is being used correctly, as described under Adjustment of Power Stacker.
2. If the forms begin to fold improperly at the perforated edge, adjust folding direction.
3. If characters are printing on the perforation, refer to Adjusting the Printing Position to remedy the problem.
4. If the marginal holes are exceedingly irregular, refer to Adjusting the Paper Tension to conform to forms needs, or refer to Checking Marginal Holes for Irregularity to decide whether or not the forms are usable in the printer.
5. If there is an intermediate horizontal perforation in the form, refer to appendix B, Forms Specifications to decide whether or not the forms are usable.
6. If lightweight forms are used, refer tp appendix B to be sure the forms are usable in the printer. Check that any out of ordianary form is usable in the printer.
7. If the problem is still not remedied, ask a Burroughs Field Engineer for assistance.

5	Ink Ribbon is Folded/Wrinkled

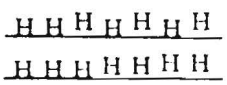
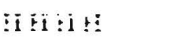
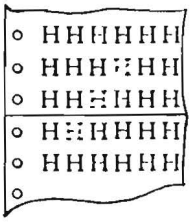
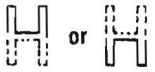
Ink Ribbon is Folded/Wrinkled

Check the following:

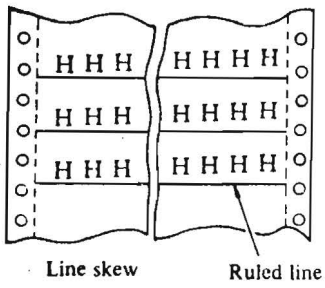
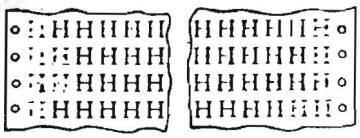
1. If the ribbon is worn out due to long service, refer to Ink Ribbon Changing to replace the ribbon.
2. If the phasing is incorrect (letters/numbers strike page improperly), refer to Phasing Control to make adjustments.
3. Refer to Print Quality if the printed characters have density differences between the top and bottom.
4. If 1-part forms of thin paper are used, be sure they weigh 55 kg (16 lb.) per ream to be acceptable for use.
5. If print band fonts show wear, refer to Print Band Changing to replace the print band.
6. Be sure the ink ribbon conforms to Industry Standards.
7. If the problem is still unremedied, ask a Burroughs Field Engineer for assistance.

Print Quality

The following table gives examples of bad print quality, the cause of it, and what can be done to correct the problem.

Unacceptable Print	Cause	Countermeasures	Is F.E. Attention Required?
H H H H H H H H H H H H W X Z A B C — Cut off right W Z A B C D Characters are printed cut off right or left in a particular column.	Hammer flight time varies.	Do as instructed in Adjusting Phasing Control.	Yes
Characters are not printed in alignment. 	Improper adjustment of paper tension.	Refer to Adjusting Paper Tension.	Next time the machine is serviced.
	Marginal holes of form lack accuracy.	Refer to Checking Marginal Holes for Irregularity.	-
		Lightweight forms (thin) are used. Refer to Forms Weight, in appendix B.	-
Characters in general are lightly printed. 	Ink ribbon is worn.	Refer to Changing the Ink Ribbon.	-
	Inferior ink ribbon is used.	Notify the vendor.	-
Characters in general are printed too thick. H H H H	Inferior ink ribbon is used.	Notify the vendor.	-
A B C Shadow print. B C D	Heavyweight forms (thick) are used.	Refer to appendix B to verify forms with specifications.	-
Blocking (one letter is omitted near the perforation). 	Heavyweight forms (thick) are used.	Refer appendix B to verify the forms with specifications.	Next time the machine is serviced.
	The FORM THICKNESS lever is set incorrectly.	Refer to appendix B to adjust the lever to the correct position.	Next time the machine is serviced.
Characters are printed lightly or cut off on either upper or lower side on all columns. 	The FORM THICKNESS lever is set incorrectly.	Refer to appendix B to set the lever correctly.	Next time the machine is serviced.
	The print band is positioned improperly.	Refer to "31" Displayed (Band Speed Check). Remove ribbon particles.	Next time the machine is serviced.

5 Print Quality

Unacceptable Print	Cause	Countermeasures	Is F.E. Attention Required?
Characters (5 to 10) are printed consecutively unclearly. H H H H H H H H H H H H H H H H H H H H H H H H	The print band is unstable.	Refer to Changing the Print Band to check the print band: Be sure the print band is set up securely.	Yes (Immediately)
Line skew.  	Lightweight forms (thin) are used.	Refer to appendix B to verify forms with specifications.	-
	Improper adjustment of paper stretch.	Refer to Adjusting Paper Tension to adjust the tension.	Next time the machine is serviced.
	Marginal holes of forms lack accuracy.	Refer to Checking Marginal Holes for Irregularity.	Next time the machine is serviced.
	The ruled line is printed - not exactly perpendicular to the center of the feed holes).	Notify the paper vendor.	-
 	The fonts of the print band are clogged with ink ribbon particles.	Refer to Changing the Print Band.	Next time the machine is serviced.
 	The print band is damaged.	Refer to Cleaning the Print Band.	Next time the machine is serviced.
A particular character is printed with a large stroke. The print is not clear. 	The print band is worn out.	Refer to Cleaning the Print Band and/or Changing the Print Band.	Next time the machine is serviced.
Printing is made on a line other than the one designated (repeatedly on every form).	The format tape or FCB is prepared improperly.	Refer to Preparing the Format Tape.	-
Omissions or illegible characters are found on particular columns. A B C D E F G H B C D E F G H I C D E F G H I J D E F G H I J K	The printing part is stuffed with paper particles produced in punching marginal holes.	Request the paper vendor to supply good forms free of such paper particles.	-
	Creases in the ink ribbon.	Refer to Changing the Ink Ribbon and Ink Ribbon is Folded/ Wrinkled.	Next time the machine is serviced.
The print is illegible on the first or 132nd column and its neighbor. 	The ink ribbon is worn out.	Refer to Ink Ribbon Changing.	Next time the machine is serviced.

APPENDIX A
OPERATOR DUTIES CHECKLIST

The following table is a quick reference to operator duties in printer maintenance. For actual procedures, refer to the Operator Maintenance section.

Item	Task*	Frequency
Ink Ribbon	Check for breaks, creases.	Start of 8 hr. shift.
Fan Filter	Clean	Once each week.
Forms Check Sensor	Clean	Start of of 8 hr. shift.
Forms Path Surface	Vacuum	Start of 8 hr. shift.
Print Band	Check/Clean	At each ribbon change, as required. When unacceptable print occurs, as specified under Print Quality.
Printer Cabinet	Clean	As required.
Ribbon Running Path	Clean	Start of 8 hr. shift.

* Look in the Maintenance section for the required procedure.

TC2009

CAUTION

- Perform all maintenance tasks with the power OFF.
- Use only the recommended cleaning solutions.
- Isopropyl alcohol is as combustible liquid and must be used and stored away from extreme heat or open flame.

Cleaning Supplies

The following is necessary when cleaning:

Item	Burroughs Order Number (or equivalent)
• Cotton Tips	1622 7159
• Isopropyl Alcohol	1624 9294
• Solvent Detergent	1624 8965
• Stiff Bristle Brush	1623 0807
• Vacuum Cleaner	1622 8116
• Wiping Cloths	1622 3778

APPENDIX B
FORMS SPECIFICATIONS

Weight and Thickness

No. of Parts	1-Part Forms	1-Time Carbon Paper	Back-Side Carbon Paper	Color Forming No-Carbon Paper
1	High-quality paper. Carbon stock. 55-135 kg (16-41 lbs)			
2		High-quality paper. Carbon paper. 40-55 kg (12-16 lbs)	Carbon paper. 40-55 kg (12-16 lbs)	No-carbon paper. 40-55 kg (12-16 lbs)
3		High-quality paper. Carbon paper. 30-45 kg (9-14 lbs)	Carbon paper. 30-45 kg (9-14 lbs)	No-carbon paper. 30-45 kg (9-14 lbs)
4		Carbon paper. Class A simili. 29-35 kg (9-11 lbs)	Carbon paper 30-55 kg (9-16 lbs)	No-carbon paper. 30-35 kg (9-16 lbs)
5		Class A simili 29-30 kg (9 lbs)	Carbon paper. 30-35 kg (9-11 lbs)	No-carbon paper. 30-35 kg (9-11 lbs)
6		Class A simili. 29-30 kg (9 lbs)	Stencil for photocopying. 30-35 kg (9-11 lbs)	No-carbon paper. 30-35 kg (9-11 lbs)

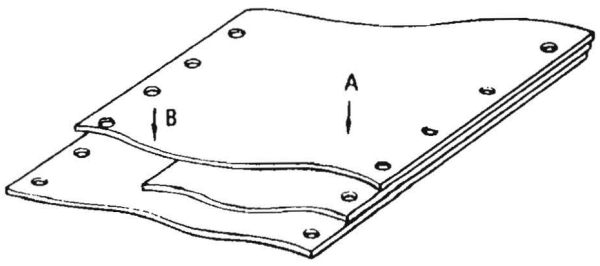
TC2011

NOTE

Use 1-time paper weighing 11-17 kg (3-5 lbs) in 2, 3, and 4-part forms and one weighing 11 kg (3 lbs) in 5 and 6-part forms.

Be sure one form is made with a thickness of 0.15 mm (0.004 in.) and less.

Thickness of A - Thickness of B = Maximum Allowable Variation ≤ 0.15 mm (0.004 in.)



TC2012

B Forms Specifications

Forms Accuracy in Fastening

Check for Irregularity	Allowance
Marginal hole center -	Less than 0.8 mm (0.032 in.) vertically and horizontally.
Forms edge -	Less than 1.5 mm (0.042 in.)
Horizontal perforation -	Less than 0.5 mm (0.002 in.)
Vertical perforation -	Less than 1.5 mm (0.042 in.)

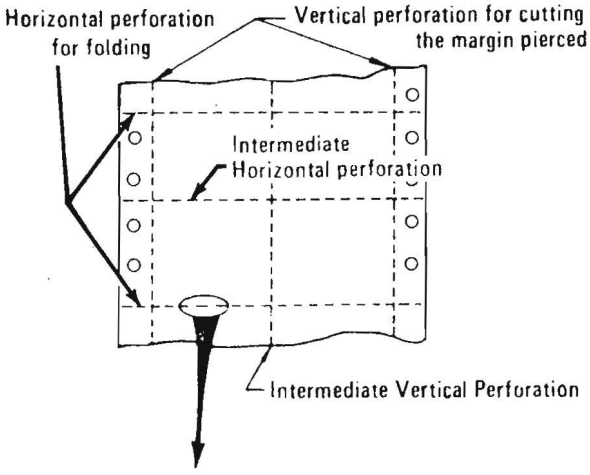
TC2014

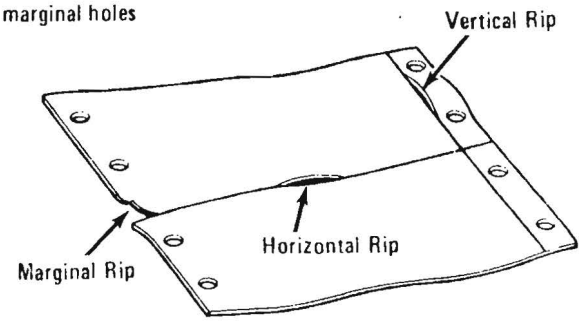
Perforation Specifications

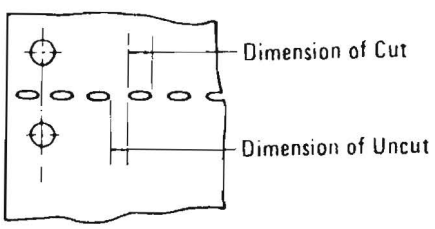
Be sure perforations are made with the uncut/cut dimensions as specified:

	Perforation	No. of Parts	Uncut Dimension	Cut Dimension
Horizontal Perforation	Horizontal perforation for folding.	1-4	over 1 mm (0.04 in.)	2-3 mm (0.08-0.12 in.)
		5-6	over 1 mm (0.04 in.)	under 3 mm (0.12 in.)
	Intermediate horizontal perforation.	1-6	over 1 mm (0.04 in.)	under 2 mm (0.08 in.)
Vertical Perforation	Vertical perforation for cutting off the feed hole margin.	1-4	over 1 mm (0.04 in.)	2-3 mm (0.08-0.12 in.)
		5-6	over 1 mm (0.04 in.)	2-4 mm (0.08-0.16 in.)
	Intermediate vertical perforation.	1-6	over 1 mm (0.04 in.)	under 2 mm (0.08 in.)

TC2015







TC2016

Special Forms and Paper

CAUTION

Before using special forms and paper, such as baggy forms, label paper, tracing paper, hect-carbon paper, etc., test run the forms/paper to see that they do not jam, provide good print, and are satisfactory in every other respect.

Baggy Paper

	Instructions for Designing	Test Printing Procedure
TBTX ●	**Baggy forms should be made continuous longitudinally (lengthwise) in the feeding direction.**	**Check: If the baggy part jams in the feeder system. If the inserted paper moves during printing.**
●	**The inserted paper (inserted in the bag) should not be put out from the bag.**	**If good carbon-coated paper is used.**
●	**The inserted paper should be pasted.**	**If it is folded well.**
●	**The total weight of a ream of forms should not exceed the limit specified.**	

TC2017

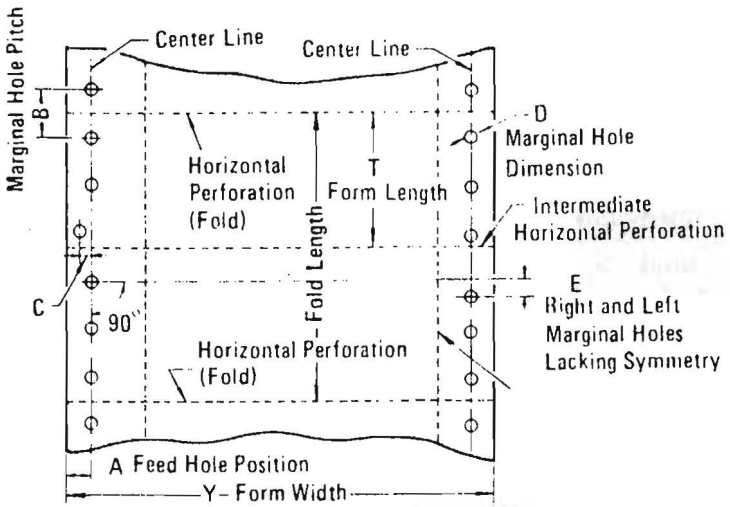
Label Paper (Tag Paper)

	Instructions for Designing	Test Printing Procedure
●	Label paper should be made with right and left margins in approximately 60 mm width that will not be printed on.	Check: If label paper does not come off the mount during printing.
	Label paper should clear the tractor.	If it does not jam and is folded well. If characters are printed without stains.
●	Rather hard paste must be used.	

TC2018

Checking Marginal Holes for Irregularity

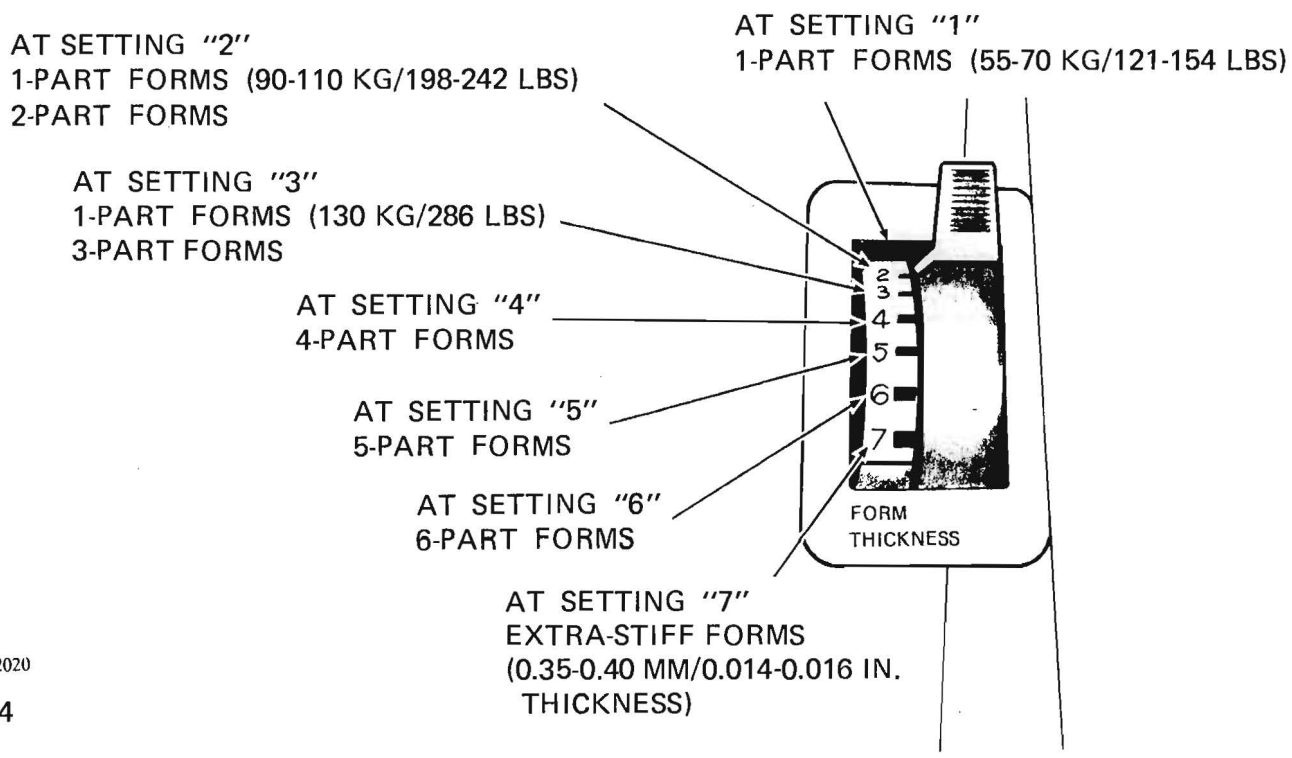
Use the following specifications:



TC2019

1. The marginal hole pitch (B) should be less than 12.7 + 0.1 mm (0.5 + 0.004 in.), the marginal hole diameter be 4 + 0.1 mm (0.16 + 0.004 in.), and the deviation (C) center line of marginal holes be less than 0.1 mm (0.004 in.). Check a form with several irregular holes by laying it over a form having fewer irregular holes.
2. The weight of 1-part forms should be more than 55 kg (16 lbs).

FORM THICKNESS Lever
The illustration shows the various settings used on the FORM THICKNESS lever, according to number of sheets and weight.



TC2020

APPENDIX C
UNIT SUPPLIES

The following are expendable supplies in use on the B 9246-10/13 Band Printer:

Item Description	Product Code Order Number
Ribbon, 5 Mil Nylon, General-Purpose	04-5246-550
Ribbon, 3 Mil, OCR	04-3246-552
Vertical Format Tape (12-Channel) Use Vertical Format Tape Punch)	70-9246-599 70-2000-175

TC2021

NOTE
Information for ordering replacement print bands and printer paper is available from your local Burroughs Customer Service Engineer.

APPENDIX D
INSTALLATION AIDS

1. Planning template:
   1) Metric - 1137197
   2) English - 1137205

2. Site Preparation Data Sheet - 1137296
   (Outlines environmental requirements for installation of printer.)

This information can be obtained from Literature Distribution; Dearborn, Mich., U.S.A.

Documentation Evaluation Form

Title: B 9246-10/-13 Band Printer Operator's Guide

Form No: 1137106

Date: February 1982

Burroughs Corporation is interested in receiving your comments and suggestions regarding this manual. Comments will be utilized in ensuing revisions to improve this manual.

Please check type of Suggestion:

☐ Addition ☐ Deletion ☐ Revision ☐ Error

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