

GA27-2750-5

File No. S360/S370/S3-09

Systems

**IBM 3270 Information
Display System
Problem Determination Guide**

**IBM 3271 Control Unit
IBM 3272 Control Unit
IBM 3275 Display Station
IBM 3277 Display Station
IBM 3284 Printer
IBM 3286 Printer
IBM 3288 Line Printer**

IBM

Preface

This guide presents charted problem identification procedures for operators of the IBM 3270 Information Display System. The scope of this guide is limited to 3270 Information Display Systems consisting of a 3275 or of 3277s, 3284s, 3286s, and/or 3288s attached to a 3271 or 3272 control unit. The operator's yes-or-no answers to the guide's logical questions will quickly trace an apparent problem to one of the following system units:

- IBM 3271 Control Unit Models 1, 2, 11, and 12
- IBM 3272 Control Unit Models 1 and 2
- IBM 3275 Display Station Models 1, 2, 11, and 12
- IBM 3277 Display Station Models 1 and 2
- IBM 3284 Printer Models 1, 2, and 3
- IBM 3286 Printer Models 1 and 2
- IBM 3288 Printer Model 2

As certain controls and indicators are referred to, it is assumed that the user is familiar with, and has available a copy of, the *Operator's Guide for IBM 3270 Information Display System, GA27-2742*.

Fifth Edition (June 1978)

This is a minor revision of, and obsoletes, GA27-2750-4.

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GLOSSARY

cursor: An indicator character that is visible on the display screen when the unit is turned on. This unique symbol (an underscore) identifies a character position in a screen display, usually the character position at which the next character entered from the keyboard will be displayed.

data tone: A high-pitched tone that is heard when the computer responds to the telephone. It indicates a connection can be made to the terminal.

designator character: A > or ? character displayed in front of a selector pen field.

detect bars: The lines that appear (on the display screen) through those fields that may be selected when the selector pen is being used.

machine problem: A problem that occurs when a terminal fails to perform the expected function because of a mechanical or electrical failure.

modem: A unit of equipment that enables terminals to send and receive data over telephone lines.

programming problem: A problem that occurs when the computer programs are not operating properly, causing unpredictable results at your display terminal or printer.

switched-line 3275: A communication line in which the connection between the computer and the 3275 is established by dialing.

terminal: A 3277 or 3275 display station.

typamatic keys: Keys that repeat their function as long as they are held down.

INTRODUCTION

Your 3270 Information Display System was designed to operate with maximum reliability. This is important if you are to do the job asked of you. And, most of the time, you will enjoy this reliability. At some time, however, it is possible that something may go wrong – or seem to. It is impossible for any equipment to be completely failure-proof. (The most expensive watch requires occasional servicing and adjustment.) Also, computer programming is a complex field which can introduce an occasional error. And possibly you just may have forgotten to operate some necessary control.

If something should go wrong, this Problem Determination Guide will help you to determine whether you can recover from your problem on your own or whether outside help is needed. When help is needed, the Guide suggests the proper person to contact and the procedure to follow.

In some cases, you will be advised to fill out a Trouble Report Form. One of two forms may be used, depending on the type of terminal that is failing.

They may be ordered under the following form numbers:

IBM 3275/3277 Trouble Report Form, GX23-0202
IBM 3284/3286/3288 Trouble Report Form, GX23-0204

You may merely wish to test your terminal's operation at some time. Your supervisor can tell you if your equipment has the Request for Test (RFT) capability. Instructions for running these tests are provided in *A Guide to Using the Test Request Feature on IBM 3270 Information Display Systems*, Form GA27-2774.

The "Problem Chart" below will direct you to the page that applies to your problem.

PROBLEM CHART

You seem to be having a problem with your equipment.

- Is more than one device failing to operate properly?

NO



- Is your problem with a display station or a printer?

DISPLAY



- 3277 – Turn to page 6.
- 3275 – Turn to page 26.

YES



Check control unit:

- 3271 – Turn to page 34.
- 3272 – Turn to page 37.

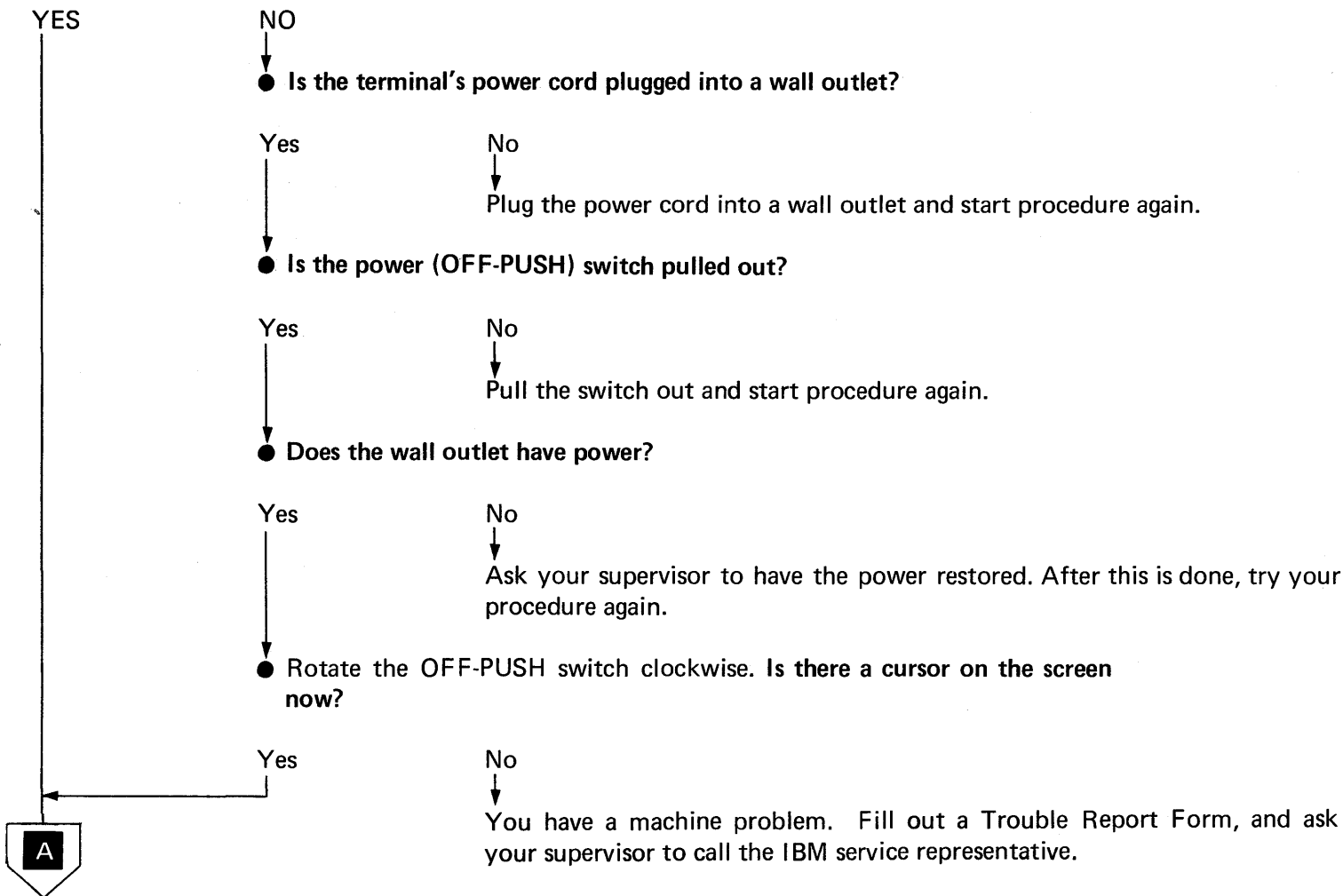
PRINTER



- 3284/3286 – Turn to page 11.
- 3288 – Turn to page 18.

3277 DISPLAY STATION

● Is there a cursor on the screen?





● Is there some other problem with your display screen?

NO



YES

● Do any of the following describe the problem?

1. One or many horizontal lines across screen.
2. Screen is full of squares.
3. Brightness control (nearest knob on OFF-PUSH switch) has no effect.
4. Image is not focused.
5. Image size is incorrect.
- 6.* Image is off-center or tilted on display.
7. Spacing between rows of characters is incorrect.
8. Characters are wrong size.
- 9.* Characters are not formed correctly.
10. Cursor is incorrectly positioned (below or through characters).
11. Cursor is too long or too short.
12. More than one cursor appears on screen.
13. Display indicators (SYSTEM AVAILABLE, INSERT MODE, INPUT INHIBITED) are not working properly.

No

Explain your difficulty to your supervisor in your own words.

Yes

Fill out a Trouble Report Form. Ask your supervisor to verify your problem and to call the IBM service representative.

*If you have an Identification Badge Reader, check that it is not placed on top of the display station.



● Do you have a problem with your keyboard?

NO



YES

● Is the INPUT INHIBITED light on?

No



Yes

Press the RESET key and start your operation again.

● Is the INPUT INHIBITED light still on?

No

Yes

● Is the Security Keylock (optional feature) installed?

No

Yes

● Is the INPUT INHIBITED light on when the security key is inserted and turned to the on position?

Yes

No

Start your operation again.

Fill out a Trouble Report Form. Ask your supervisor to verify your problem and to call the IBM service representative.



● Do any of the following describe the problem?

1. One or more keys or spacebar broken, loose, missing, or bind when operated.
2. CLEAR key fails.
3. Cursor control keys (↑ ↓ ← →) fail or cause INPUT INHIBITED light to come on.
4. Typamatic keys do not work.
5. Character keys fail.
6. Program access keys (ENTER, PA1-PA3, TEST REQ, PF keys) fail.

No



Describe your problem in your own words to your supervisor.

Yes



Fill out a Trouble Report Form. Ask your supervisor to verify your problem and to call the IBM service representative.

● Do you have a problem with your Selector Pen (optional feature)?

NO



YES



● Do any of the following describe the problem?

1. Selector Pen is damaged, or operation is not smooth when tip is pressed.
2. Detect bars appear when pen is not used.
3. Detect bars appear and remain after selection.
4. Detect bars appear, but designator characters do not change.

No



Describe your problem to your supervisor in your own words.

Yes



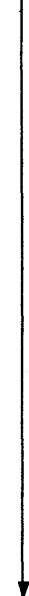
Fill out a Trouble Report Form. Ask your supervisor to verify your problem and to call the IBM service representative.

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● Do you have a problem with your Identification Badge Reader (optional feature)?

NO



● Any 3277 problems not mentioned or resolved at this point should be discussed with your supervisor, who will assist you in filling out a Trouble Report Form.

YES



● Does the magnetic identification card fail to read?

No



● Is your card jammed inside the reader?

No



Describe your problem to your supervisor in your own words.

Yes



Try another magnetic card. If it works, your original card may be defective. If it does not work, fill out a Trouble Report Form.

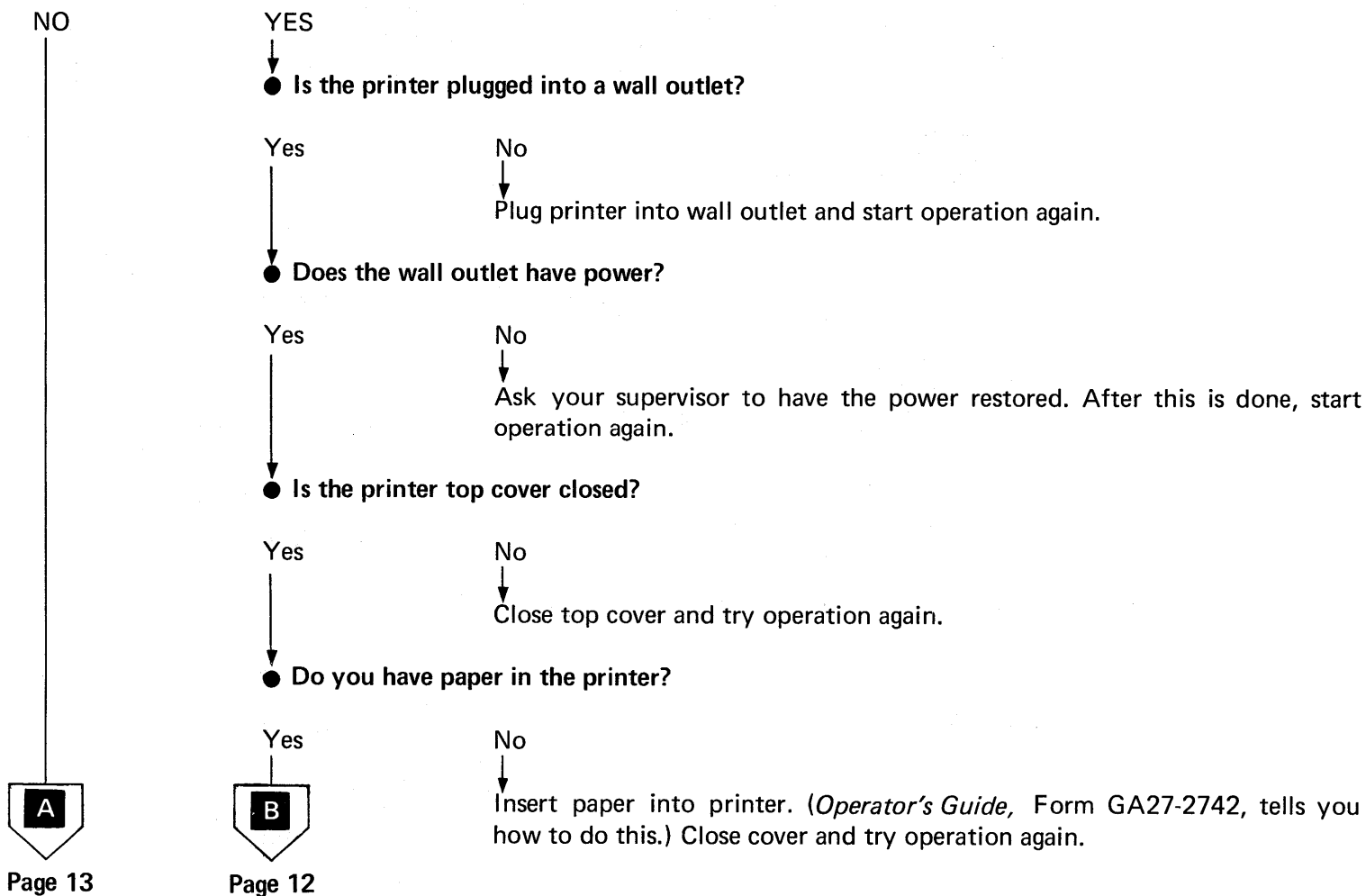
Yes



Fill out a Trouble Report Form. Ask your supervisor to verify your problem and to call the IBM service representative.

3284/3286 PRINTER

● Is the printer totally inoperative?



Page 11



● Is the TEST switch (under the cover) in the on-line (ON LN) position?

Yes

No

Set TEST switch to ON LN, close cover, and try operation again.

● Is the printer still inoperative?

No

Yes

Place TEST switch in PRINT PAT position.
Place MODE switch in MODE 2 position.
Momentarily operate the START PRINT switch.

● Was the printout successful? (See Figure 1 or 2 for example.)

Yes

No

Place TEST switch in ON LN position. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

Place TEST switch in PRINT PAT position.
Place MODE switch in MODE 1 position.
Momentarily operate the START PRINT switch.

● Was the printout successful? (See Figure 3, 4, or 5 for example.)

Yes

No

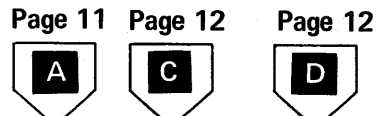
Place TEST switch in ON LN position. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.



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Page 13



● Is the print quality poor (bad spacing, missing or illegible characters)?

No

Yes

↓
Check ribbon adjustment of copy control lever (under top cover), and operate printer again. (The *Operator's Guide*, Form GA27-2742, describes this adjustment.)

● Is your printer working properly now?

Yes

No

↓
Place TEST switch in ON LN position. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

Are you getting the expected printout?

NO

↓
Place TEST switch in ON LN position. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

↓
END



```

B D F H ¢ <      K M O Q ! *      S U W Y %      2 4 6 8 : @      B D F      B D F
XXCXEFXXI¢X<XXI|XJKXMXXPQXX$X);XX/SXUXXXYYX,X_>X0XX3X56XX9:X@XX" XXCXEFX XXCXEFX
ABCDEFGHI¢.<( + I & J K L M N O P Q R ! $ % ) ; ^ _ ? 0 1 2 3 4 5 6 7 8 9 : # @ ' = " ABCDEFG ABCDEFG
ABCDEFGHI¢.<( + I & J K L M N O P Q R ! $ % ) ; ^ _ ? 0 1 2 3 4 5 6 7 8 9 : # @ ' = " ABCDEFG ABCDEFG
B D F H ¢ <      K M O Q ! *      S U W Y %      2 4 6 8 : @      B D F      B D F
XXCXEFXXI¢X<XXI|XJKXMXXPQXX$X);XX/SXUXXXYYX,X_>X0XX3X56XX9:X@XX" XXCXEFX XXCXEFX
X

```

```

S U W Y %      2 4 6 8 : @
S U W Y %      2 4 6 8 : @

```

Notes:

1. A character may or may not appear in the position marked by the arrow. Disregard any character that may appear.
2. This figure illustrates the contents of the test pattern rather than the size and style of individual characters.
3. The USA EBCDIC character set is used in this illustration. Pattern will vary, depending on character generator feature installed.

Figure 3. Alphameric Test Pattern (Mode 1), 3284/3286 Model 1



```

B D F H ¢ <      K M O Q ! *      S U W Y      %      2 4 6 8 : @      B D F      B D F
XXCXEFXXI¢X<XXIXJKXMXXPQXX$X);XX/SXUXXXYYY,X_>X0XX3X56XX9:X@XX" XXCXEFX XXCXEFX
ABCDEFGHI¢.<(+I&JKLMNOPQR!$**);- /STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
ABCDEFGHI¢.<(+I&JKLMNOPQR!$**);- /STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
B D F H ¢ <      K M O Q ! *      S U W Y      %      2 4 6 8 : @      B D F      B D F
XXCXEFXXI¢X<XXIXJKXMXXPQXX$X);XX/SXUXXXYYY,X_>X0XX3X56XX9:X@XX" XXCXEFX XXCXEFX
ABCDEFGHI¢.<(+I&JKLMNOPQR!$**);- /STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
ABCDEFGHI¢.<(+I&JKLMNOPQR!$**);- /STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
B D F H ¢ <      K M O Q ! *      S U W Y      %      2 4 6 8 : @      B D F      B D F
XXCXEFXXI¢X<XXIXJKXMXXPQXX$X);XX/SXUXXXYYY,X_>X0XX3X56XX9:X@XX" XXCXEFX XXCXEFX
ABCDEFGHI¢.<(+I&JKLMNOPQR!$**);- /STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
ABCDEFGHI¢.<(+I&JKLMNOPQR!$**);- /STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
B D F H ¢ <      K M O Q ! *      S U W Y      %      2 4 6 8 : @      B D F      B D F
XXCXEFXXI¢X<XXIXJKXMXXPQXX$X);XX/SXUXXXYYY,X_>X0XX3X56XX9:X@XX" XXCXEFX XXCXEFX
ABCDEFGHI¢.<(+I&JKLMNOPQR!$**);- /STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
ABCDEFGHI¢.<(+I&JKLMNOPQR!$**);- /STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
B D F H ¢ <      K M O Q ! *      S U W Y      %      2 4 6 8 : @      B D F      B D F
XXCXEFXXI¢X<XXIXJKXMXXPQXX$X);XX/SXUXXXYYY,X_>X0XX3X56XX9:X@XX" XXCXEFX XXCXEFX
ABCDEFGHI¢.<(+I&JKLMNOPQR!$**);- /STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
ABCDEFGHI¢.<(+I&JKLMNOPQR!$**);- /STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG

```

X

```

S U W Y      %      2 4 6 8 : @
S U W Y      %      2 4 6 8 : @
S U W Y      %      2 4 6 8 : @
S U W Y      %      2 4 6 8 : @
S U W Y      %      2 4 6 8 : @
S U W Y      %      2 4 6 8 : @

```

Notes:

1. A character may or may not appear in the position marked by the arrow. Disregard any character that may appear.
2. This figure illustrates the contents of the test pattern rather than the size and style of individual characters.
3. The USA EBCDIC character set is used in this illustration. Pattern will vary, depending on character generator feature installed.

Figure 4. Alphameric Test Pattern (Mode 1), 3284/3286 Model 2



```

b'd f0h t9s      k!m o4q 3A*      sEtu w1y nvl      1Δω x ÷ ∇~T      b'd f0      b'd f0
XXCXEFXXI0X<XXIXJKXMXXPQXX$X);XX/SXUXXXYYXX,X_>X0XX3X56XX9:X0XX" XXCXEFX XXCXEFX
abcdefghijklmnop [L→[]jklmnopqr0c*0;+~ stuvwxyz001[2°αε1ρω5x\÷9∇ΔT]≠| abcdefg abcdefg
ABCDEFGHI0.<(+#&JKLMN0PQR!$*);~-/STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
b'd f0h t9s      k!m o4q 3A*      sEtu w1y nvl      1Δω x ÷ ∇~T      b'd f0      b'd f0
XXCXEFXXI0X<XXIXJKXMXXPQXX$X);XX/SXUXXXYYXX,X_>X0XX3X56XX9:X0XX" XXCXEFX XXCXEFX
abcdefghijklmnop [L→[]jklmnopqr0c*0;+~ stuvwxyz001[2°αε1ρω5x\÷9∇ΔT]≠| abcdefg abcdefg
ABCDEFGHI0.<(+#&JKLMN0PQR!$*);~-/STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
b'd f0h t9s      k!m o4q 3A*      sEtu w1y nvl      1Δω x ÷ ∇~T      b'd f0      b'd f0
XXCXEFXXI0X<XXIXJKXMXXPQXX$X);XX/SXUXXXYYXX,X_>X0XX3X56XX9:X0XX" XXCXEFX XXCXEFX
abcdefghijklmnop [L→[]jklmnopqr0c*0;+~ stuvwxyz001[2°αε1ρω5x\÷9∇ΔT]≠| abcdefg abcdefg
ABCDEFGHI0.<(+#&JKLMN0PQR!$*);~-/STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
b'd f0h t9s      k!m o4q 3A*      sEtu w1y nvl      1Δω x ÷ ∇~T      b'd f0      b'd f0
XXCXEFXXI0X<XXIXJKXMXXPQXX$X);XX/SXUXXXYYXX,X_>X0XX3X56XX9:X0XX" XXCXEFX XXCXEFX
abcdefghijklmnop [L→[]jklmnopqr0c*0;+~ stuvwxyz001[2°αε1ρω5x\÷9∇ΔT]≠| abcdefg abcdefg
ABCDEFGHI0.<(+#&JKLMN0PQR!$*);~-/STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG
b'd f0h t9s      k!m o4q 3A*      sEtu w1y nvl      1Δω x ÷ ∇~T      b'd f0      b'd f0
XXCXEFXXI0X<XXIXJKXMXXPQXX$X);XX/SXUXXXYYXX,X_>X0XX3X56XX9:X0XX" XXCXEFX XXCXEFX
abcdefghijklmnop [L→[]jklmnopqr0c*0;+~ stuvwxyz001[2°αε1ρω5x\÷9∇ΔT]≠| abcdefg abcdefg
ABCDEFGHI0.<(+#&JKLMN0PQR!$*);~-/STUVWXYZ ,%_>?0123456789:#@'=" ABCDEFG ABCDEFG

```

X

```

sEtu w1y nvl      1Δω x ÷ ∇~T
sEtu w1y nvl      1Δω x ÷ ∇~T
sEtu w1y nvl      1Δω x ÷ ∇~T
sEtu w1y nvl      1Δω x ÷ ∇~T
sEtu w1y nvl      1Δω x ÷ ∇~T
sEtu w1y nvl      1Δω x ÷ ∇~T

```

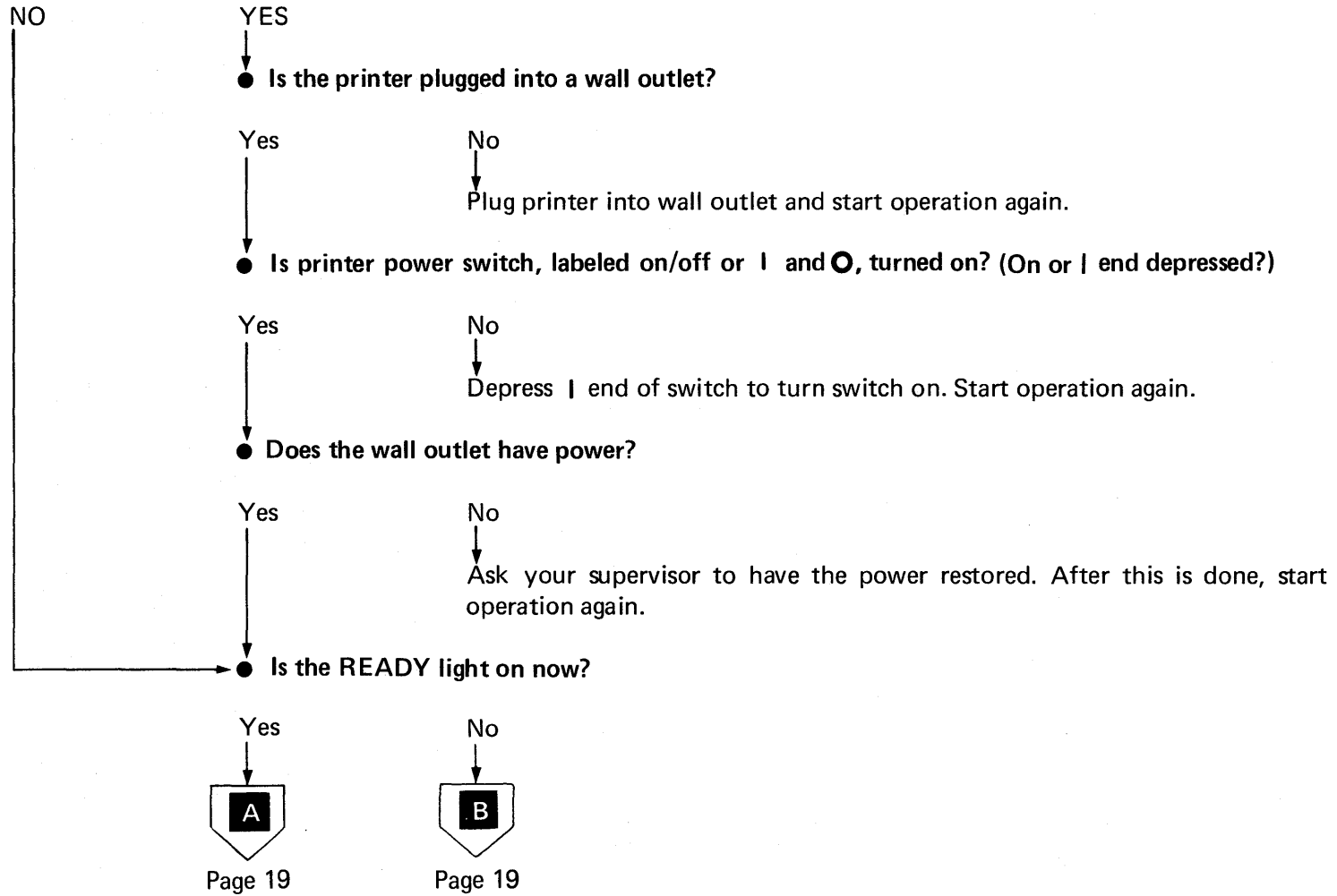
Notes:

1. A character may or may not appear in the position marked by the arrow. Disregard any character that may appear.
2. This figure illustrates the contents of the test pattern rather than the size and style of individual characters.
3. The USA EBCDIC character set is used in this illustration. Pattern will vary, depending on character generator feature installed.

Figure 5. Alphameric Test Pattern (Mode 1), 3284/3286 Model 2 (with Data Analysis – APL Feature)

3288 PRINTER

● is the printer totally inoperative?





● Is the SYSTEM AVAILABLE light on?

YES



● Is Ops Chk indicator off?

Yes

Fill out a Trouble Report Form. Ask your supervisor to verify your problem and to check communications between the Control Unit and the CPU.

No

Make sure covers and print unit are closed. Be sure printer has a supply of forms, properly loaded and without jams. (*Operator's Guide*, Form GA27-2742, tells you how to do this.) Start operation again.

NO

● Is the Ops Chk indicator off?

Yes

● Is the cable plugged in and connected to the control unit?

Yes



No

Make sure the Test switch is in the ON LN position. Start operation again.

No

Plug in the cable. Start the operation again.



Open the main cover, and place the Test switch in the PRINT PAT position.

Place the Printer switch in the MODE 2 position.

Close the main cover, wait for the Ready indicator, and then momentarily operate the Start Test pushbutton.

● Was the printout successful? (See Figure 6 for example.)

Yes



No



Place the Test switch in the ON LN position. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

Open the main cover, and place the Test switch in the MODE 1 position.

Close the main cover, wait for the Ready indicator, and then momentarily operate the Start Test pushbutton.

● Was the printout successful?

- For example see:
- Figure 7: Base Machine.
- Figure 8: Machine with Text Print Feature and 64-character Print Belt.
- Figure 9: Machine with Text Print Feature and 120-character TN Print Belt.

Yes



No



Place the Test switch in the ON LN position. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.



● Is the print quality poor (bad spacing and alignment; missing or smudged characters)?

No

Yes

Make sure type belt release lever is fully closed (to the rear), ribbon is properly installed, and forms thickness control is set for the number of forms you are using. Start operation again.

● Is your printer working properly now?

Yes

No

Place the Test switch in the ON LN position.

Place the Test switch in the ON LN position. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

● Are you getting the expected printout?

YES

NO

Place the Test switch in the ON LN position. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

END


```

B D F H Ø <      K M O Q ! *      S U W Y : %      2 4 6 8 : @      B D F      B D F
XXCXEFXXIØX<XX|XJKXMXXPQXX$X);XX/SXUXXXYYX,X_>XOXX3X56XX9:X@XX"  XXCXEFX  XXCXEFX
ABCDEFGHIØ.<(+|&JKLMNQPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
ABCDEFGHIØ.<(+|&JKLMNQPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
B D F H Ø <      K M O Q ! *      S U W Y : %      2 4 6 8 : @      B D F      B D F
XXCXEFXXIØX<XX|XJKXMXXPQXX$X);XX/SXUXXXYYX,X_>XOXX3X56XX9:X@XX"  XXCXEFX  XXCXEFX
ABCDEFGHIØ.<(+|&JKLMNQPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
ABCDEFGHIØ.<(+|&JKLMNQPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
B D F H Ø <      K M O Q ! *      S U W Y : %      2 4 6 8 : @      B D F      B D F
XXCXEFXXIØX<XX|XJKXMXXPQXX$X);XX/SXUXXXYYX,X_>XOXX3X56XX9:X@XX"  XXCXEFX  XXCXEFX
ABCDEFGHIØ.<(+|&JKLMNQPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
ABCDEFGHIØ.<(+|&JKLMNQPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
B D F H Ø <      K M O Q ! *      S U W Y : %      2 4 6 8 : @      B D F      B D F
XXCXEFXXIØX<XX|XJKXMXXPQXX$X);XX/SXUXXXYYX,X_>XOXX3X56XX9:X@XX"  XXCXEFX  XXCXEFX
ABCDEFGHIØ.<(+|&JKLMNQPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
ABCDEFGHIØ.<(+|&JKLMNQPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
B D F H Ø <      K M O Q ! *      S U W Y : %      2 4 6 8 : @      B D F      B D F
XXCXEFXXIØX<XX|XJKXMXXPQXX$X);XX/SXUXXXYYX,X_>XOXX3X56XX9:X@XX"  XXCXEFX  XXCXEFX
ABCDEFGHIØ.<(+|&JKLMNQPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
ABCDEFGHIØ.<(+|&JKLMNQPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG

```

See → X
Note

```

S U W Y : %      2 4 6 8 : @
S U W Y : %      2 4 6 8 : @
S U W Y : %      2 4 6 8 : @
S U W Y : %      2 4 6 8 : @
S U W Y : %      2 4 6 8 : @
S U W Y : %      2 4 6 8 : @

```

Note: The additional line with an "X" indicates that the Error X Print feature is installed on the 3288. When the Error X Print feature is not installed, the X does not appear, and the remaining lines in the printout are moved up one line position.

Figure 7. Alphameric Test Pattern (Mode 1), 3288 Model 2 (Printout with 64-Character EBCDIC US English Print Belt)

```

      <          *
XXCXEFXXI@X<XX|XJKXMXXPQXX$X);XX/SXUXXXYYXX,X_>XOXX3X56XX9:X@XX"  XXCXEFX  XXCXEFX
      <          * ;                    5 9
ABCDEFGHI@.<(+|&JKLMNOPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
      <          *
XXCXEFXXI@X<XX|XJKXMXXPQXX$X);XX/SXUXXXYYXX,X_>XOXX3X56XX9:X@XX"  XXCXEFX  XXCXEFX
      <          * ;                    5 9
ABCDEFGHI@.<(+|&JKLMNOPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
      <          *
XXCXEFXXI@X<XX|XJKXMXXPQXX$X);XX/SXUXXXYYXX,X_>XOXX3X56XX9:X@XX"  XXCXEFX  XXCXEFX
      <          * ;                    5 9
ABCDEFGHI@.<(+|&JKLMNOPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
      <          *
XXCXEFXXI@X<XX|XJKXMXXPQXX$X);XX/SXUXXXYYXX,X_>XOXX3X56XX9:X@XX"  XXCXEFX  XXCXEFX
      <          * ;                    5 9
ABCDEFGHI@.<(+|&JKLMNOPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
      <          *
XXCXEFXXI@X<XX|XJKXMXXPQXX$X);XX/SXUXXXYYXX,X_>XOXX3X56XX9:X@XX"  XXCXEFX  XXCXEFX
      <          * ;                    5 9
ABCDEFGHI@.<(+|&JKLMNOPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG
      <          *
XXCXEFXXI@X<XX|XJKXMXXPQXX$X);XX/SXUXXXYYXX,X_>XOXX3X56XX9:X@XX"  XXCXEFX  XXCXEFX
      <          * ;                    5 9
ABCDEFGHI@.<(+|&JKLMNOPQR!$*);--/STUVWXYZ!,%_>?0123456789:#@'="  ABCDEFG  ABCDEFG

```

X
↑
See
Note

Six blank lines appear after the Error "X" Print line.

Note: The additional line with an "X" indicates that the Error X Print feature is installed on the 3288. When the Error X Print feature is not installed, the X does not appear, and the remaining lines in the printout are moved up one line position.

Figure 8. Alphameric Test Pattern (Mode 1), 3288 Model 2 (Printout with Text Print Feature and 64-Character Print Belt)


```

b d f h ≤ <      k m o q □ *      s u w y ± r      2 4 6 8 - 7      b d f      b d f
XBCDEFghMIEX<XX+RJKXMMNBQKX$*);XX9SXUXXXYXX+X[>X0XR3X56XR9-X@X}*  XBCDEFgh XBCDEFgh
ABCDEFGHIJ. < (+ | & J K L M N O P Q R ! $ % * ) ; -- / S T U V W X Y Z ^ _ ? 0 1 2 3 4 5 6 7 8 9 : # @ ' = "
b d f h ≤ <      k m o q □ *      s u w y ± r      2 4 6 8 - 7      b d f      b d f
XBCDEFghMIEX<XX+RJKXMMNBQKX$*);XX9SXUXXXYXX+X[>X0XR3X56XR9-X@X}*  XBCDEFgh XBCDEFgh
ABCDEFGHIJ. < (+ | & J K L M N O P Q R ! $ % * ) ; -- / S T U V W X Y Z ^ _ ? 0 1 2 3 4 5 6 7 8 9 : # @ ' = "
b d f h ≤ <      k m o q □ *      s u w y ± r      2 4 6 8 - 7      b d f      b d f
XBCDEFghMIEX<XX+RJKXMMNBQKX$*);XX9SXUXXXYXX+X[>X0XR3X56XR9-X@X}*  XBCDEFgh XBCDEFgh
ABCDEFGHIJ. < (+ | & J K L M N O P Q R ! $ % * ) ; -- / S T U V W X Y Z ^ _ ? 0 1 2 3 4 5 6 7 8 9 : # @ ' = "
b d f h ≤ <      k m o q □ *      s u w y ± r      2 4 6 8 - 7      b d f      b d f
XBCDEFghMIEX<XX+RJKXMMNBQKX$*);XX9SXUXXXYXX+X[>X0XR3X56XR9-X@X}*  XBCDEFgh XBCDEFgh
ABCDEFGHIJ. < (+ | & J K L M N O P Q R ! $ % * ) ; -- / S T U V W X Y Z ^ _ ? 0 1 2 3 4 5 6 7 8 9 : # @ ' = "
b d f h ≤ <      k m o q □ *      s u w y ± r      2 4 6 8 - 7      b d f      b d f
XBCDEFghMIEX<XX+RJKXMMNBQKX$*);XX9SXUXXXYXX+X[>X0XR3X56XR9-X@X}*  XBCDEFgh XBCDEFgh
ABCDEFGHIJ. < (+ | & J K L M N O P Q R ! $ % * ) ; -- / S T U V W X Y Z ^ _ ? 0 1 2 3 4 5 6 7 8 9 : # @ ' = "

```

X

↑

See
Note 1

```

S U W Y ± R      2 4 6 8 - 7
S U W Y ± R      2 4 6 8 - 7
S U W Y ± R      2 4 6 8 - 7
S U W Y ± R      2 4 6 8 - 7
S U W Y ± R      2 4 6 8 - 7
S U W Y ± R      2 4 6 8 - 7

```

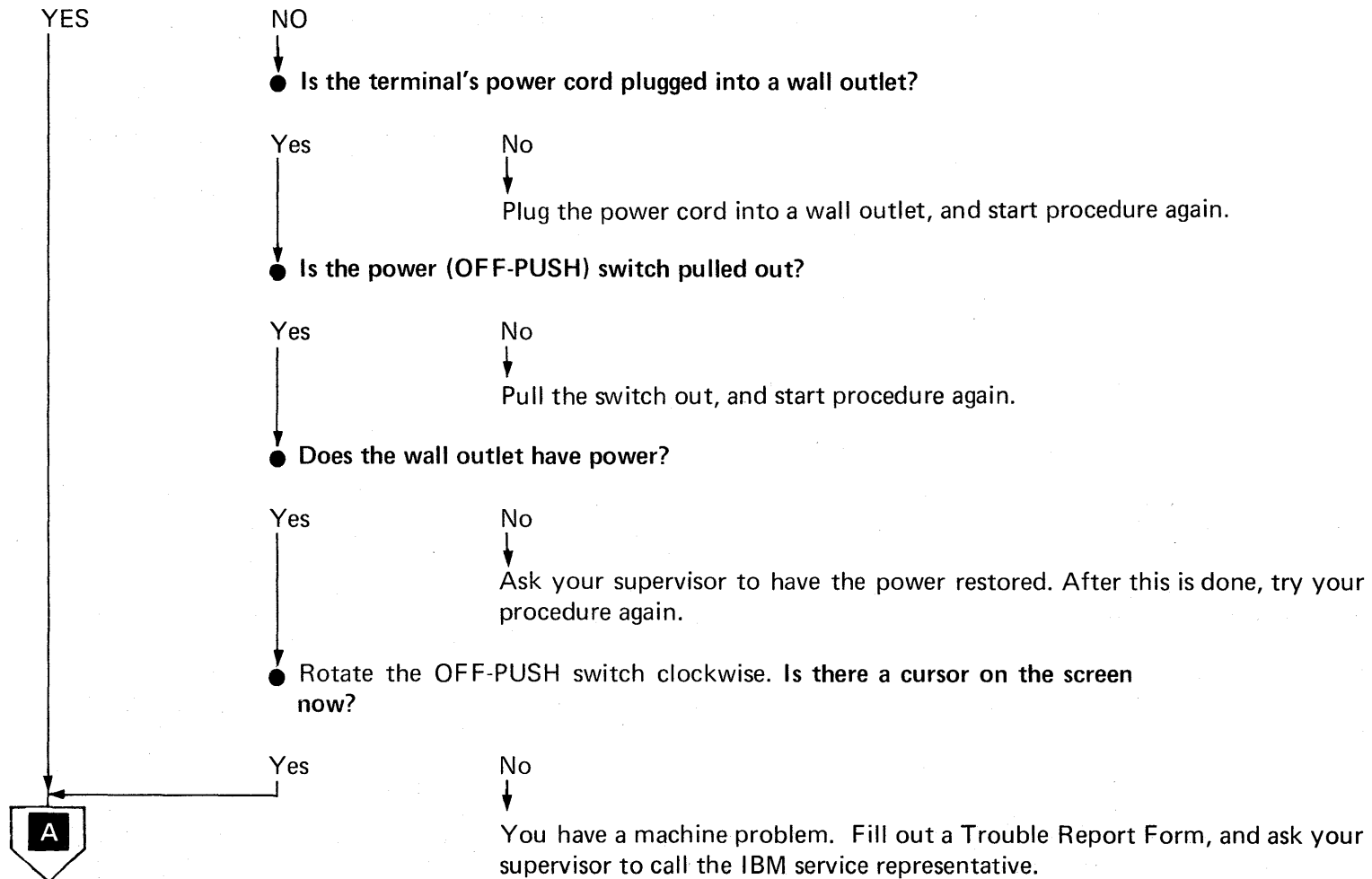
Notes:

1. The additional line with an "X" indicates that the Error X Print feature is installed on the 3288.
When the Error X Print feature is not installed, the X does not appear, and the remaining lines in the printout are moved up one line position.
2. The overprinting on lines 2, 5, 8, 11, 14, and 17 demonstrates the overstrike capability of the featured printer.

Figure 9. Alphameric Test Pattern (Mode 1), 3288 Model 2 (Printout with Text Print Feature and 120-Character Print Belt)

3275 DISPLAY STATION

● Is there a cursor on the screen?





● Is there some other problem with your display screen?

NO



YES

● Do any of the following describe the problem?

1. One or many horizontal lines across screen.
2. Screen is full of squares.
3. Brightness control (nearest knob on OFF-PUSH switch) has no effect.
4. Image is not focused.
5. Image size is incorrect.
- 6.* Image is off-center or tilted on display.
7. Spacing between rows of characters is incorrect.
8. Characters are wrong size.
- 9.* Characters are not formed correctly.
10. Cursor is incorrectly positioned (below or through characters).
11. Cursor is too long or too short.
12. More than one cursor appears on screen.
13. Display indicators (SYSTEM AVAILABLE, INSERT MODE, INPUT INHIBITED) are not working properly.

No

Explain your difficulty to your supervisor.

Yes

Fill out a Trouble Report Form. Ask your supervisor to verify your problem and to call the IBM service representative.

*If you have an Identification Badge Reader, check that it is not placed on top of the display station.



● Do you have a problem with your keyboard?

NO



YES

● Is the INPUT INHIBITED light on?

No



Yes

Press the RESET key and start your operation again.

● Is INPUT INHIBITED light still on?

No

Yes

● Is the Security Keylock (optional feature) installed?

No

Yes

● Is the INPUT INHIBITED light on when the security key is inserted and turned to the on position?

Yes

No

Start your operation again.

Fill out a Trouble Report Form. Ask your supervisor to verify your problem and to call the IBM service representative.



● Do you have a problem with your Selector Pen (optional feature)?

NO



● Do any of the following describe the problem?

1. One or more keys or spacebar broken, loose, missing, or bind when operated.
2. CLEAR key fails.
3. Cursor control keys (↑ ↓ ← →) fail or cause INPUT INHIBITED light to come on.
4. Typamatic keys do not work.
5. Character keys fail.
6. Program access keys (ENTER, PA1-PA3, TEST REQ, PF keys) fail.

No



Describe your problem in your own words to your supervisor.

Yes



Fill out a Trouble Report Form. Ask your supervisor to verify your problem and to call the IBM service representative.

YES



● Do any of the following describe the problem?

1. Selector Pen is damaged, or operation is not smooth when tip is pressed.
2. Detect bars appear when pen is not used.
3. Detect bars appear and remain after selection.
4. Detect bars appear, but designator characters do not change.

No



Describe your problem to your supervisor in your own words.

Yes



Fill out a Trouble Report Form. Ask your supervisor to verify your problem and to call the IBM service representative.



● Do you have a problem with your Identification Badge Reader (optional feature)?

NO



● Is yours a switched-line 3275 (you have a dialable modem)?

NO



YES



● Does the magnetic identification card fail to read?

No



● Is your card jammed inside the reader?

No



Describe your problem to your supervisor in your own words.

Yes



Try another magnetic card. If it works, your original card may be defective. If it does not work, fill out a Trouble Report Form.

Yes



Fill out a Trouble Report Form. Ask your supervisor to verify your problem and to call the IBM service representative.

YES



● When you try to dial the computer site, do you get a busy signal, no answer, or no data tone?

No



Yes



Ask your supervisor to have the modem checked for a possible problem and, if necessary, to contact the computer site to make sure the computer is operational.



● Is the SYSTEM READY light on?

YES

NO

● Is the modem turned on?

Yes

No

Turn on modem, and try operation again.

● Is the modem plugged into a wall outlet?

Yes

No

Plug in the modem and try again.

● Does the wall outlet have power?

Yes

No

Ask your supervisor to have power restored. After this is done, try operation again.

● Is the SYSTEM READY light on now?

Yes

No

Check whether other terminals on the line (if any) are failing. Ask your supervisor to inquire whether there is any problem at the computer site. If the problem is determined to be with your 3275, fill out a Trouble Report Form and ask your supervisor to call the IBM service representative.





- Is the SYNC SEARCH (3275 Model 1 or 2) or FLAG DETECT (3275 Model 11 or 12) light blinking on and off?

YES



NO



- Ask your supervisor to check with the central computer site to determine that the computer is running, that there is an "active" polling list, and that your device is on a line on that list.
- If these checks are OK, you probably have a machine problem. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

- Does SEL'D (3275 Model 1 or 2) or CU ACTIVE (3275 Model 11 or 12) blink on and off?

YES

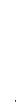


NO



- Is your device on the "active" polling list?

Yes



- You have a machine problem. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

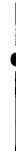
No



- Ask your supervisor to place your device on the active polling list.

- Is the STATUS light on or blinking?

NO



- (Normal condition)



YES



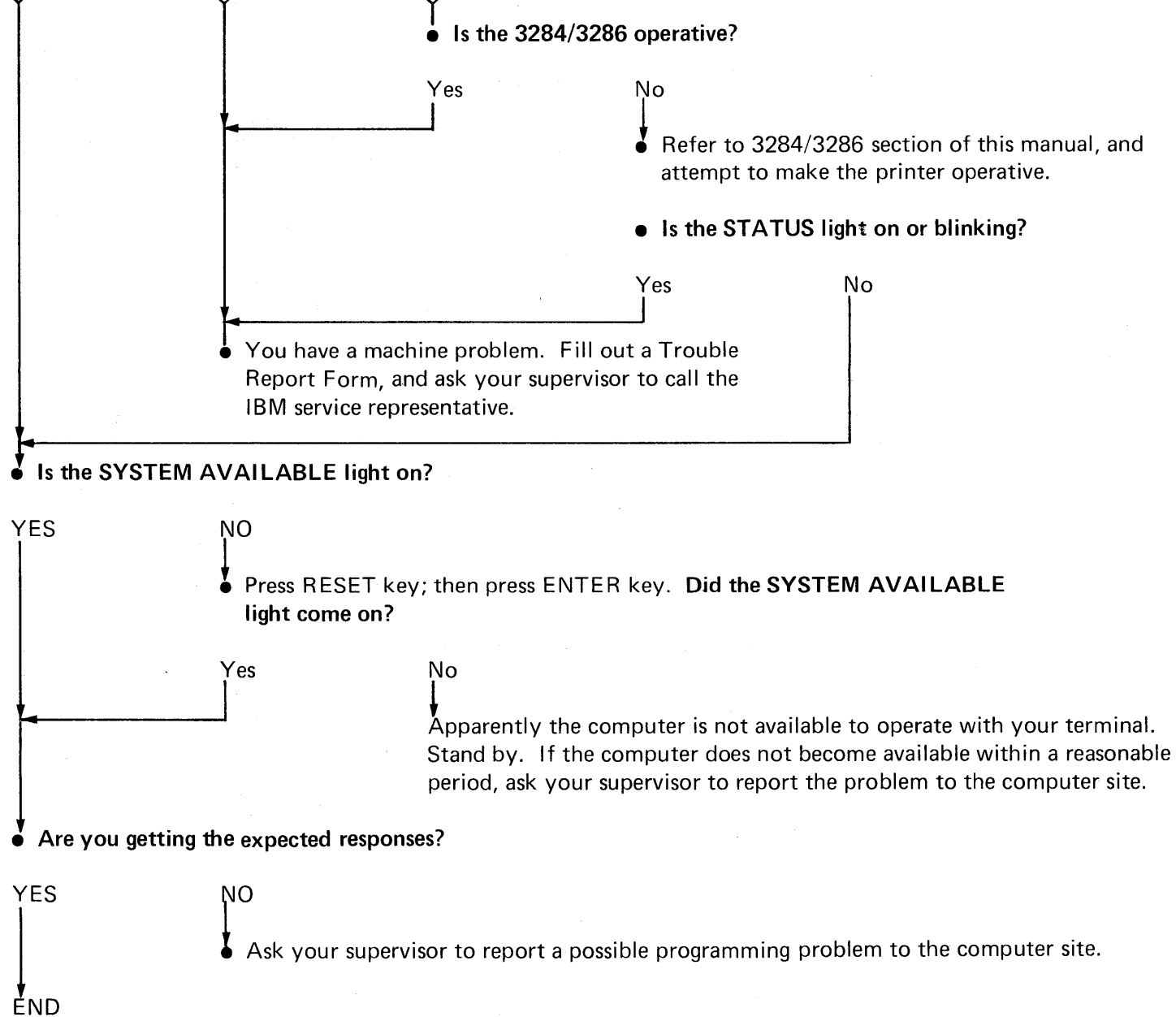
- Is the 3284/3286 attached to the 3275?

No



Yes





3271 CONTROL UNIT

- Are all the lights on the side of the control unit off?

YES



- Is the control unit plugged into a wall outlet?

YES



- Is the control unit power-on switch in the ON position?

YES



- Does the wall outlet have power?

YES



- Is the control unit a Model 11 or 12?

NO



- Are all the lights on the side of the control unit still off?

YES



- You have a machine problem. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

NO



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NO



- Plug unit into wall outlet, and try operation again.

NO



- Turn unit on, and try operation again.

NO



- Ask your supervisor to have power restored. After this is done, try your operation again.

YES



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NO



Page 35



● Is the SYSTEM READY light on?

YES



NO

● Is the modem plugged into a wall outlet?

Yes



● Does the wall outlet have power?

Yes



● Is the SYSTEM READY light on now?

Yes



No



Plug in the modem, and try again.

No



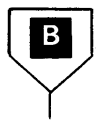
Ask your supervisor to have power restored. After this is done, make sure your modem is turned on, and try your operation again.

No



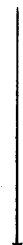
Check whether other terminals on the line (if any) are failing. Ask your supervisor to inquire whether there is any problem at the computer site. If the problem is determined to be with your 3271, fill out a Trouble Report Form and ask your supervisor to call the IBM service representative.

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- Does the SYNC SEARCH (3271 Model 1 or 2) or FLAG DETECT (3271 Model 11 or 12) light blink on and off?

YES



- Does SEL'D (3271 Model 1 or 2) or CU ACTIVE (3271 Model 11 or 12) blink on and off?

YES



- Is the STATUS light on or blinking?

NO



- (Normal condition)



- END

NO



- Ask your supervisor to check with the central computer site to determine that the computer is running, that there is an "active" polling list, and that your device is on a line on that list.

- If these checks are OK, you probably have a machine problem. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

NO



- Is your device on the "active" polling list?

Yes



- You have a machine problem. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

No



- Ask your supervisor to place your device on the active polling list.

YES



- You have a machine problem. Fill out a Trouble Report Form, and ask your supervisor to call the IBM service representative.

3272 CONTROL UNIT

- Is the control unit plugged into a wall outlet?

YES



- Does the wall outlet have power?

YES



- Is control unit turned on?

YES



- If control unit is still not functioning properly, fill out a Trouble Report Form and ask your supervisor to call the IBM service representative.

NO



- Plug unit into wall outlet, and try operation again.

NO



- Ask your supervisor to have power restored. After this is done, try your operation again.

NO



- Turn on control unit, and try operation again.



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