5280

IBM 5280 Distributed Data System

User's Setup Procedures

IBM

IBM 5280 Distributed Data System

User's Setup Procedures

Use this publication only for the purpose of setting up the IBM 5280 System.

This manual is divided into ten sections. Section 1 provides information about what should have been done prior to setup. Sections 2 through 6 provide procedures for setting up the IBM 5281, 5282, 5286, 5285, and 5288 respectively.

Section 7 provides the procedures for labeling the system. Section 8 provides a procedure for running the verification program. The program checks the devices after you have set them up. Section 9 presents the procedures for connecting the communications lines to the IBM 5280 system. Section 10 provides general instructions for disconnecting and relocating your system.

The tabs on the side of the manual indicate the name of the procedure in each section.

This manual should be used after your devices are unpacked and placed where you intend to use them. When you have finished setting up and verifying the IBM 5280 system, save one of the *User's Setup Procedures* manuals by placing it in the *Machine Verification* binder.

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Contents

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Section 1. What Must Be Done Prior to Setup

Before you start to set up your system, the following must have been completed (as defined in the *Planning and Site Preparation Guide*):

- Installed grounded outlets

- Completed system setup form and floor plan

- Labeled system cables and placed them where they will be connected to the devices

- Assigned physical addresses to the printers and diskette drives (on the setup form)

- Assigned a number to each keyboard (on the setup form)

- Placed each device where it will be set up

- Labeled the printer cables, if you have any printers

- If you have communications, the following must also have been completed:
  - Installed communications equipment
  - Completed a procedure for establishing communications with your host system

If these activities have not been completed, ask your supervisor to see the *IBM 5280 System Planning and Site Preparation Guide*, GA21-9351.

During the setup procedure you will be:

- Connecting cables

- Setting switches

- Labeling your system devices

- Inserting diskettes

- Loading programs

- Operating the keyboard

- Responding to system prompts

SOME IMPORTANT POINTS TO REMEMBER ABOUT SETUP

- Do not skip from page to page or from section to section looking for information. All the information you need to set up a device is in a section designated for that device.

- Do not attempt to set up more than one device at a time, even though they look alike. Return to the beginning of each section for like devices.

- When you start a section, read each step slowly and carefully. Be sure that you understand each step before completing it. It is unlikely that you will encounter any problems; but if you do, contact your supervisor.

- The cables and cable connectors are durable, but can be damaged if thrown or stepped on.

- Before you begin a setup procedure, look at the machine number on the device. The machine number is always your starting point. Find the machine number in this manual by looking at the Contents page or by looking at the page edge tab. The locations of the machine numbers and page edge tabs are shown in the following diagrams.

Or   Or

Machine Number   Machine   Machine Number
(5281 or 5285)   Number   (5288)
                                (5282 or 5286)

Contents Page
(machine number)

Page Edge Tab
(machine number)

2
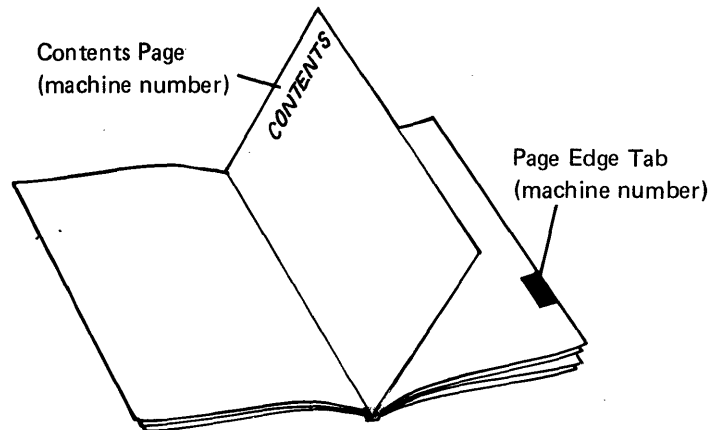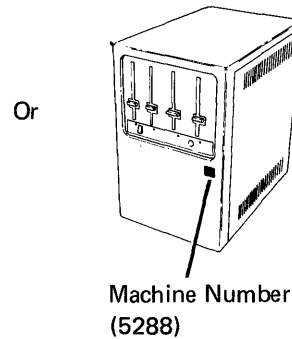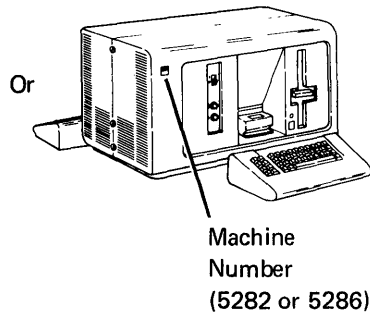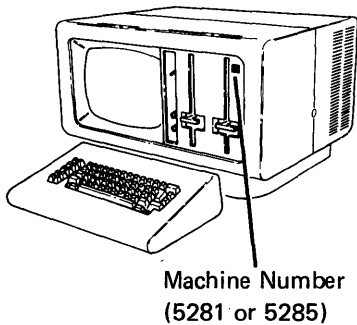
When you begin the setup procedure for your system, it is very important that you set up the devices in the following order:

1. Auxiliary devices (set up IBM 5281s first and IBM 5282s second).

2. Printer: If you have a printer(s), see the printer customer setup manual. Do not connect the printer cable(s). The printer cable(s) will be connected using this manual.

3. Controller (IBM 5286, 5285, or 5288).

Caution: An IBM device can weigh up to 90 kilograms (200 pounds). NEVER LIFT A DEVICE BY YOURSELF.

Caution: This device weighs approximately 68 kilograms (150 pounds).
NEVER LIFT IT BY YOURSELF.

1. **Check to see if you have a magnetic stripe reader taped to the front of your data station.**
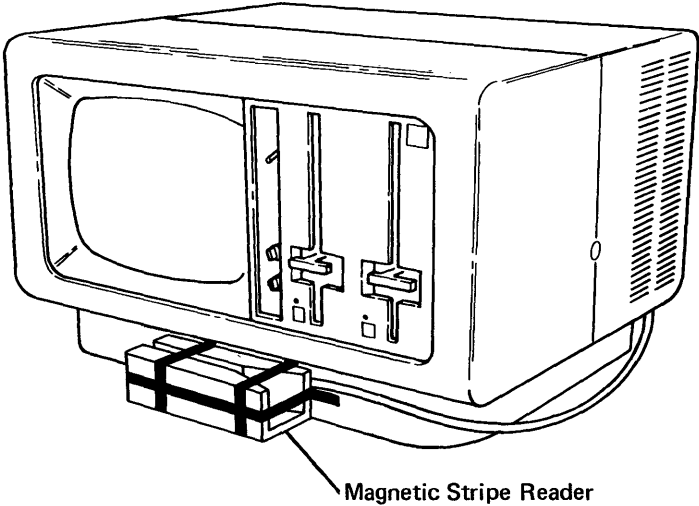
Magnetic Stripe Reader

IBM 5281 Setup

2. If you have a magnetic stripe reader, remove, unwrap, and place the reader beside the data station.

Magnetic Stripe Reader
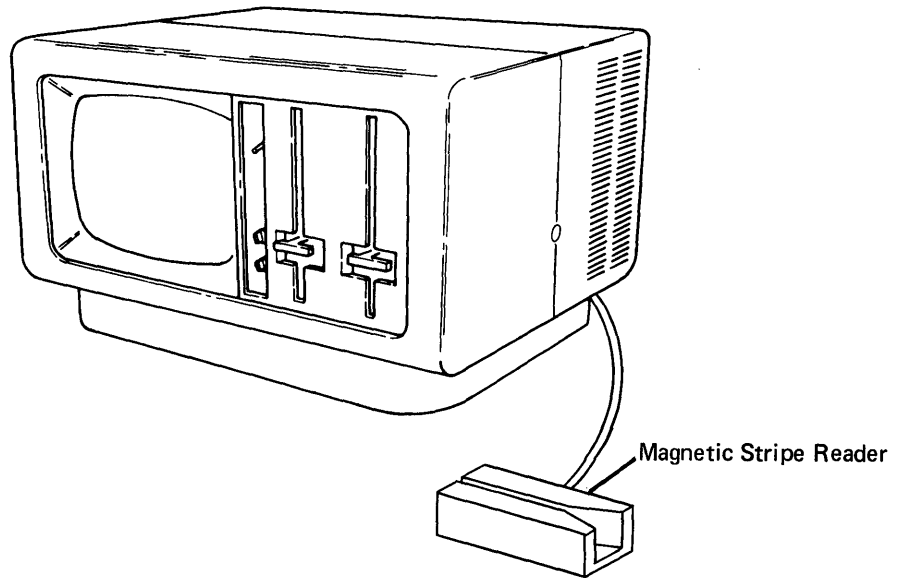
3. Place the keyboard to one side of the display screen.
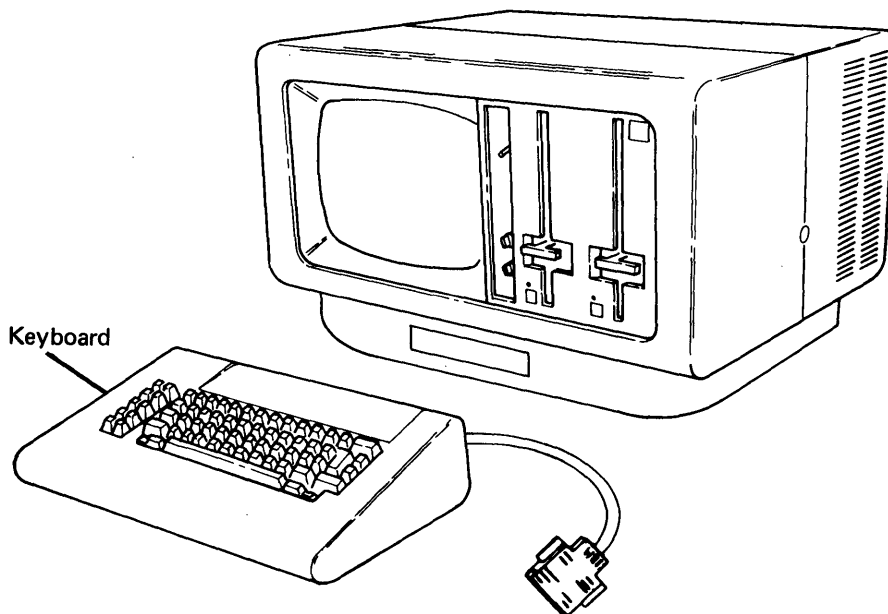
Keyboard

4. Connect the keyboard cable by positioning the connector so that the IBM logo is up; then push the connector into the socket.
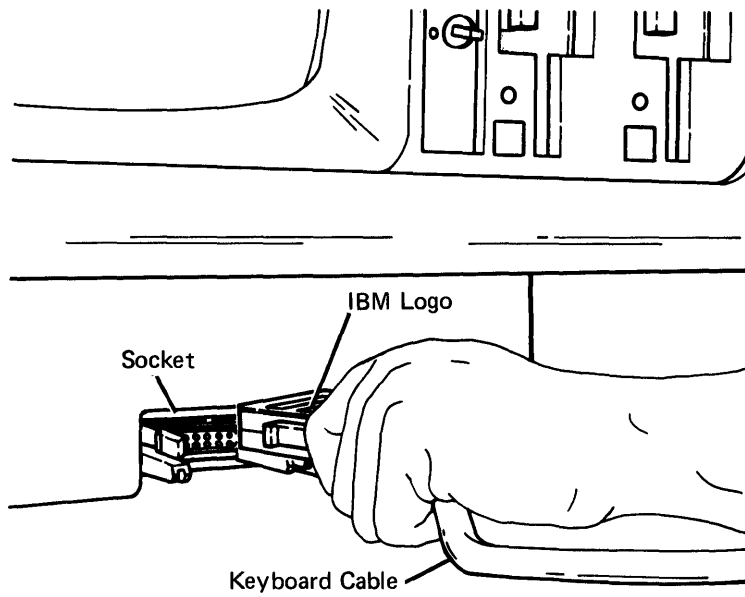
5. **Make sure that the snap-locks lock into position.**

IBM 5281 Setup
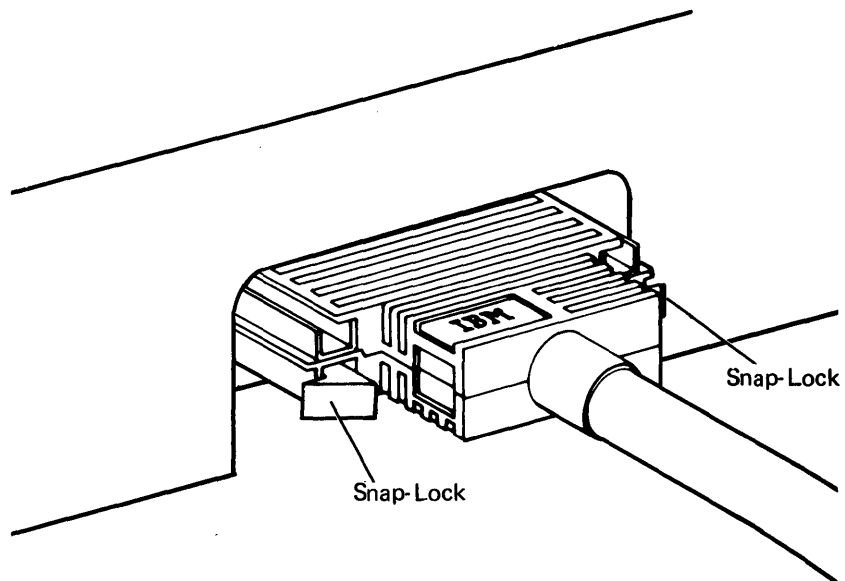
6. If you have a diskette drive(s), make sure the diskette locking lever(s) is open.
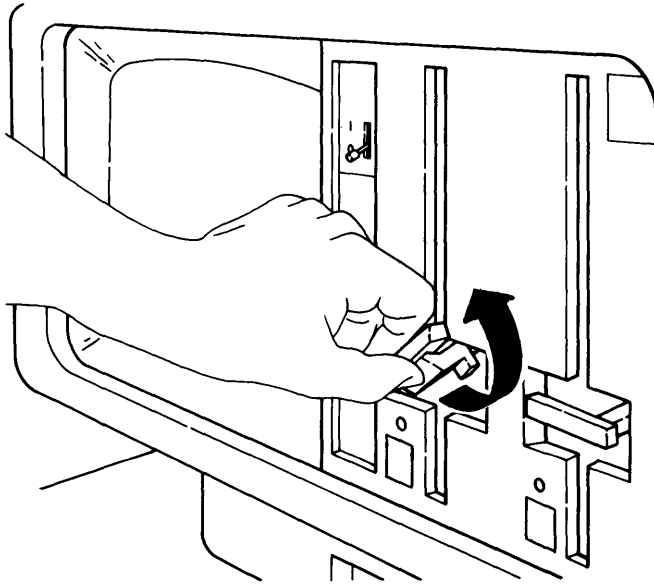
7. Make sure that the Power switch is set to the O (Off) position.
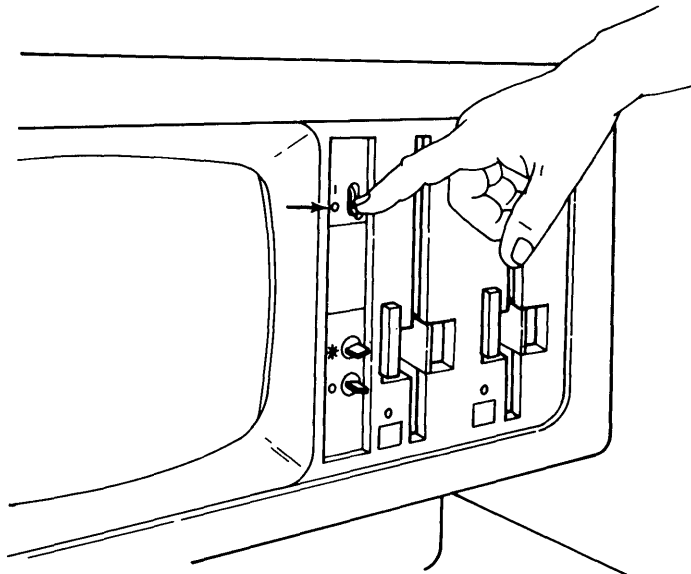
You will be connecting one or two more cables to the IBM 5281. The cables are:

- One data station cable

- One diskette drive cable (optional)

Note: Under normal conditions, the cables do not carry high voltage and there is no danger of electrical shock. However, to ensure safety, the power cord plug should always be removed from the receptacle when you connect or disconnect the cables.

Each cable connector is color coded. The data station cable connector is color coded green. The diskette drive cable is color coded yellow.

Green or Yellow Label

Each socket is also color coded. The data station socket is color coded green.
The diskette drive socket is color coded yellow.

Green Label   Yellow Label

Back View

In addition to the color-coded connectors and sockets, there should be
identification labels. If not, see the *IBM 5280 Planning and Site Preparation
Guide.* The label identifies which device the cable connects to.

Identification Label

Back View

8. **Read the following four steps (a, b, c, and d) before connecting the data station cable.**

a. **Look at the data station socket with the green label. This is where you will connect the data station cable.**

Yellow Label

Green Label

Data Station Socket

Back View of the IBM 5281

b. **Find a cable connector with a green label. Read the identification label to be sure that it connects to the IBM 5281.**

c. **Position the cable so that the IBM logo is on top; then push the cable end into the socket (make sure that the colors match).**

Socket

Cable End

Note: If you have trouble pushing in the cable, make sure that the connector guides line up with the socket guides.
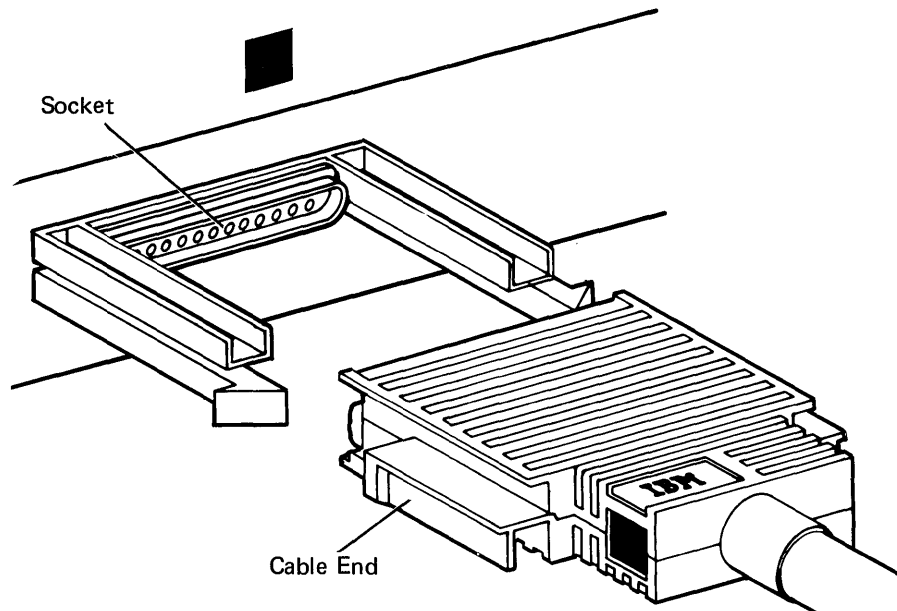
Socket
Guides

Connector
Guides

d. Make sure that the snap-locks lock into position.

Snap-Lock

Snap-Lock

9.   If the IBM 5281 has a diskette drive(s), go to step 10. If not, go to step 11.

10. **Read the following four steps (a, b, c, and d) before connecting the diskette drive cable.**

   a. **Look at the diskette drive socket (with the yellow label). This is where you will connect the diskette drive cable.**

Green Label

Yellow Label

Diskette Drive Socket
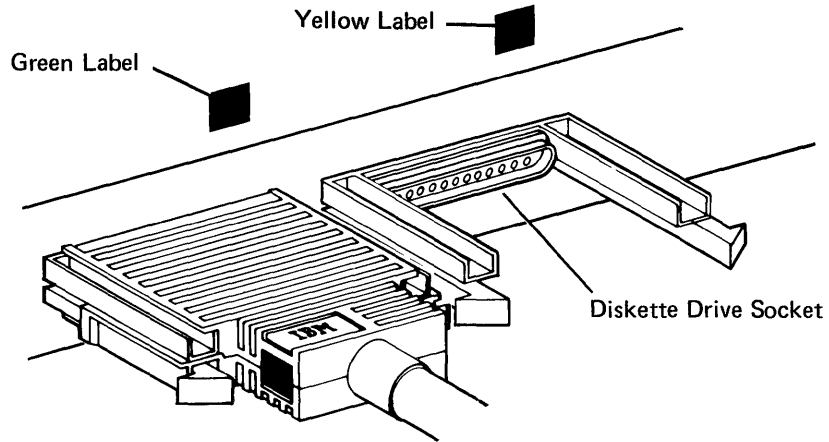
   b. **Find a cable connector with a yellow label. Read the identification label to be sure that it connects to the IBM 5281.**

   c. **Position the cable so that the IBM logo is on top; then push the cable end into the socket (make sure that the colors match).**

   Note: If you have trouble pushing the connector into the socket, make sure that the connector guides line up with the socket guides.

d. Make sure that the snap-locks lock into position.

Snap-Lock

Snap-Lock
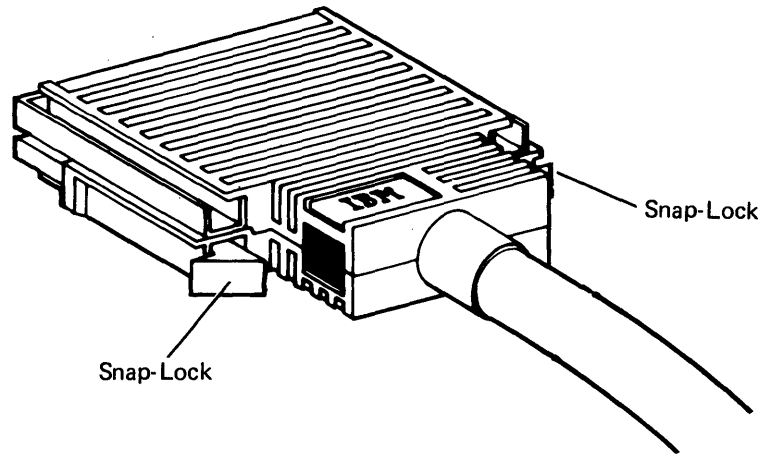
11.   Cut and remove the string from the power cord plug.
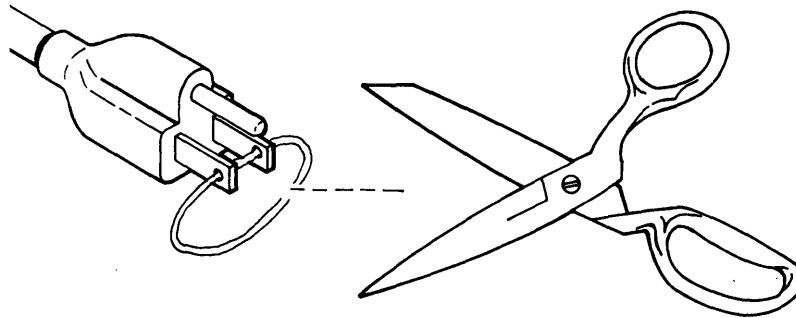
12.   Insert the power cord plug into a grounded receptacle.

13. One or more maintenance information manuals are shipped
    with each machine. Please be sure to keep these manuals
    handy. The service personnel will need these manuals to
    maintain your equipment.

    **Label the IBM binder(s) that came with your device (if they
    have not been labeled) by doing the following:**

    a. **Open an IBM binder and cut out the identification tab printed o
       the back cover of each manual.**
    b. **Fold the identification tabs (except for the first tab) in the
       following manner:**

    Note: Depending on the binder, you may only have two tabs to insert.

c. **Insert the tabs into the plastic cover found on the binder, as
   shown below:**
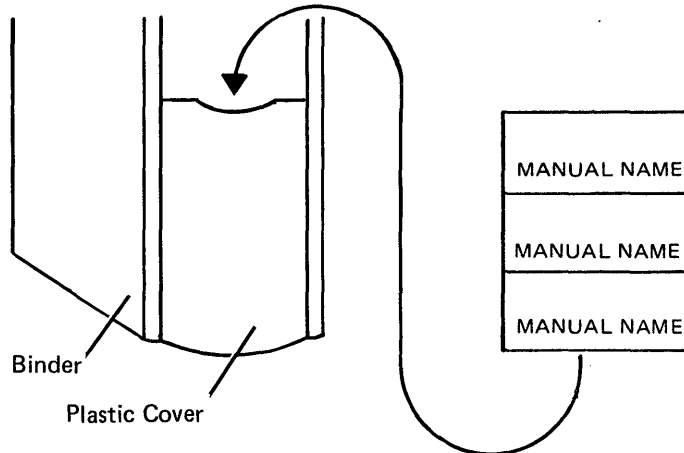
You have completed the setup procedure for the IBM 5281. The unconnected cable
ends will be connected in another section.

Do you have another IBM 5281 to set up?

Yes No

    Do you have an IBM 5282 to set up?

    Yes No

        Do you have a printer to set up?

        Yes No

            – Set up your controller (IBM 5286, 5285, or 5288).

        – Go set up the printer(s), using the customer setup manual that came with the printer. Do not connect the printer cable(s). The printer cable(s) will be connected using this manual. When you have completed the setup procedure for the printer(s), set up your controller (5285 or 5288) using this manual.

    – Go to Section 3, *IBM 5282 Setup Procedure.*

– Return to step 1 in this section.

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Caution: This device weighs approximately 68 kilograms (150 pounds).
NEVER LIFT IT BY YOURSELF.

Machine Number

IBM

5282

1.   **Find the keyboards and place them in front of the display
      screens.**

Keyboard

Keyboard

IBM 5282 Setup

2. Check to see if you have a magnetic stripe reader in each of the mirror housings on the IBM 5282.

Magnetic Stripe Reader

3. If you have magnetic stripe readers, remove, unwrap, and place the readers beside the keyboards.

Magnetic Stripe Reader

Magnetic Stripe Reader

18
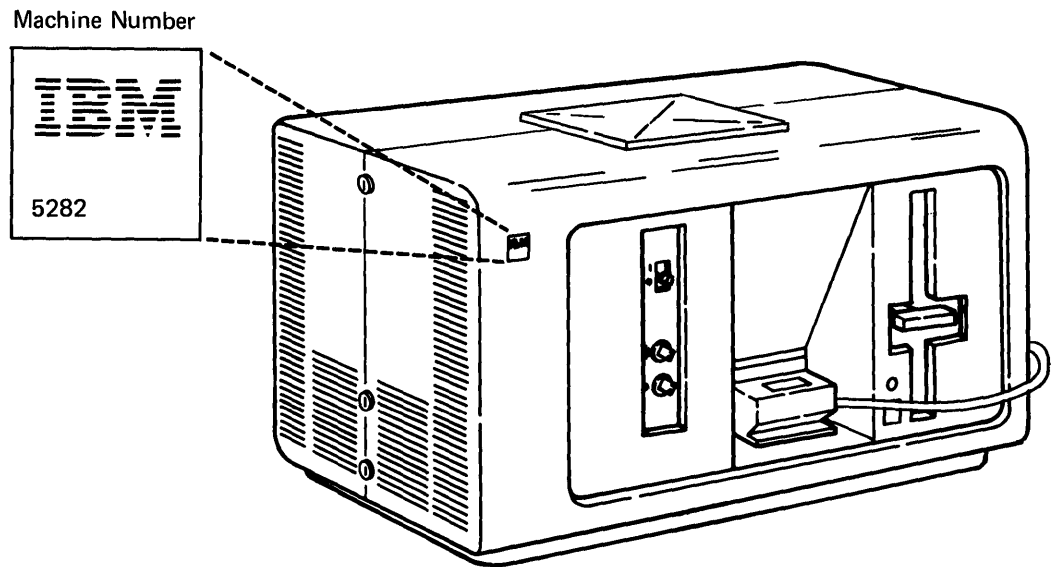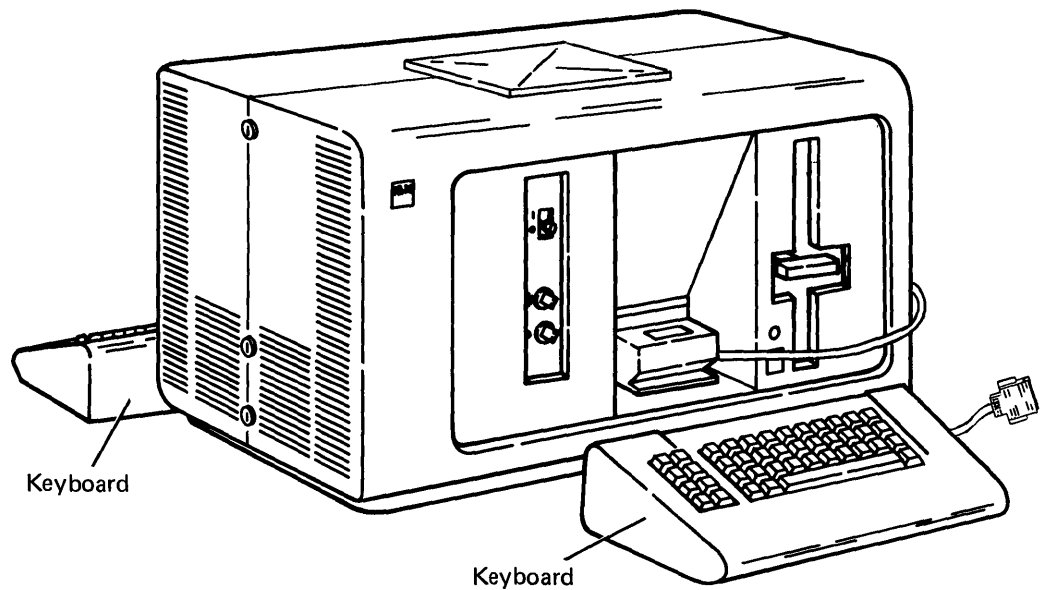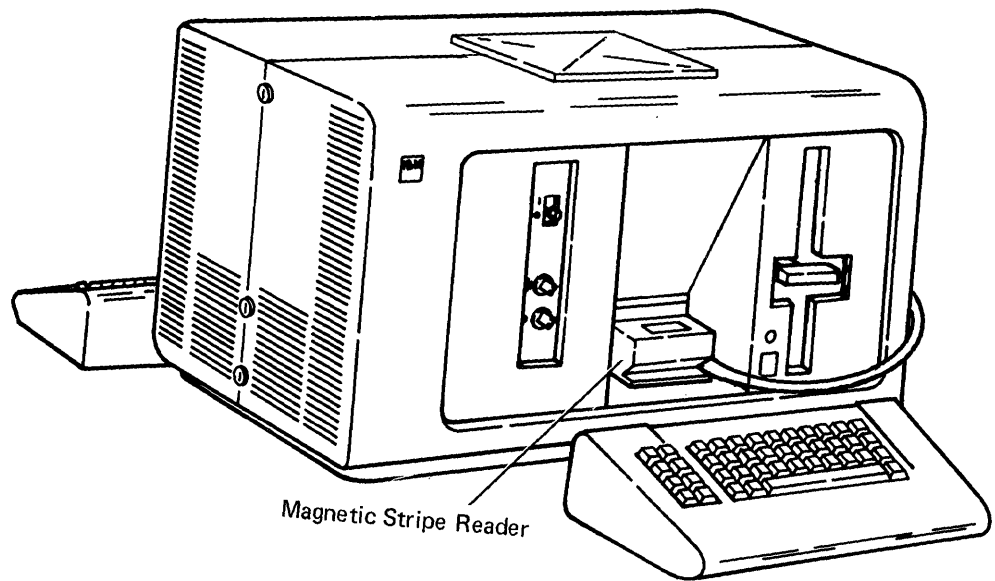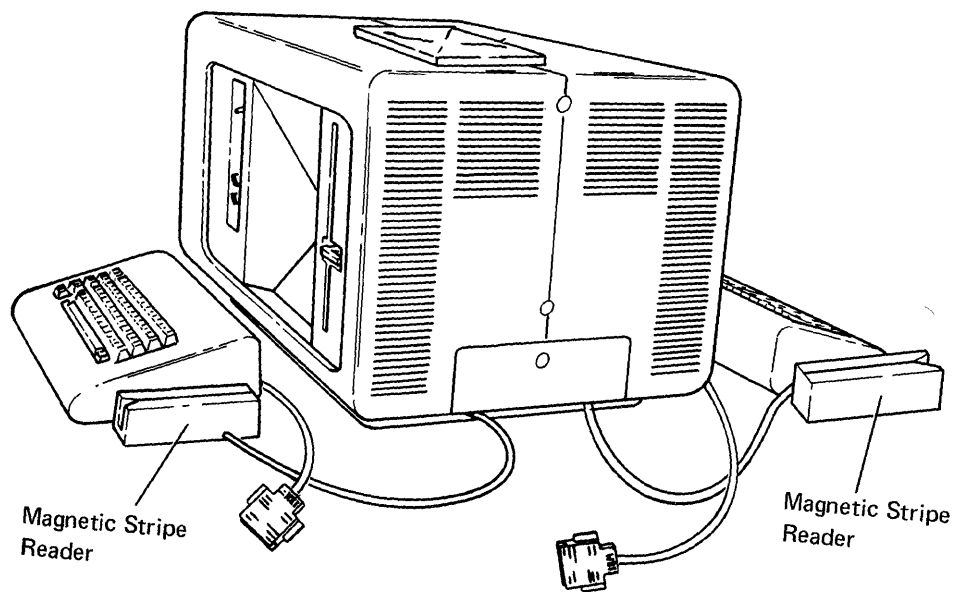
4. Remove and unwrap the two mirrors from the top of your
    data station. If the mirrors are smudged, clean the mirrors
    with glass cleaner.
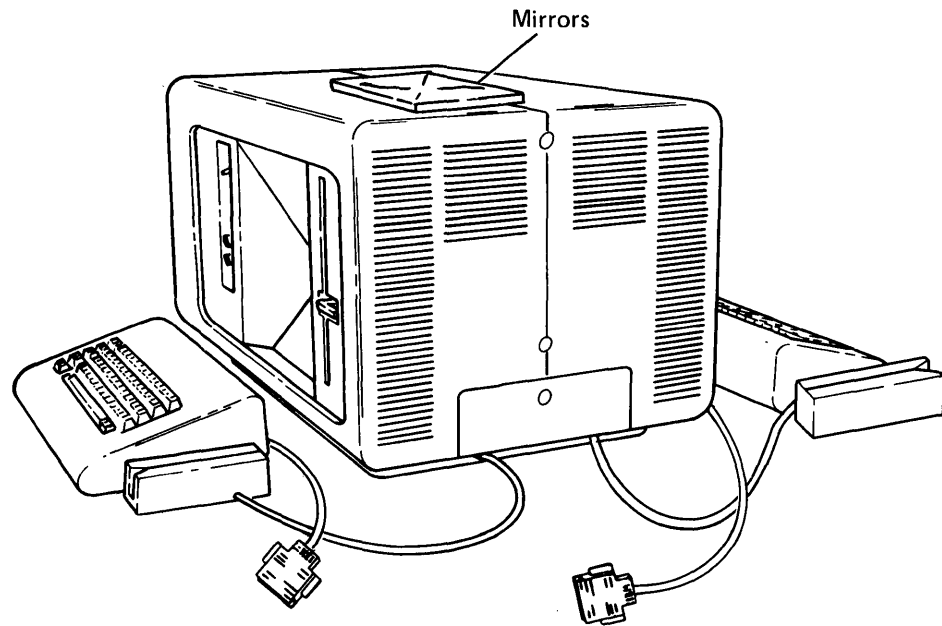
Mirrors

5. Insert a mirror on each side of the display screen as follows:

    Lay the mirror on the top or bottom ledge of the mirror housing
    (this can be adjusted for viewing convenience); then lower the
    bottom of the mirror into its position.

Top Ledge

Bottom Ledge

6. Do the following:
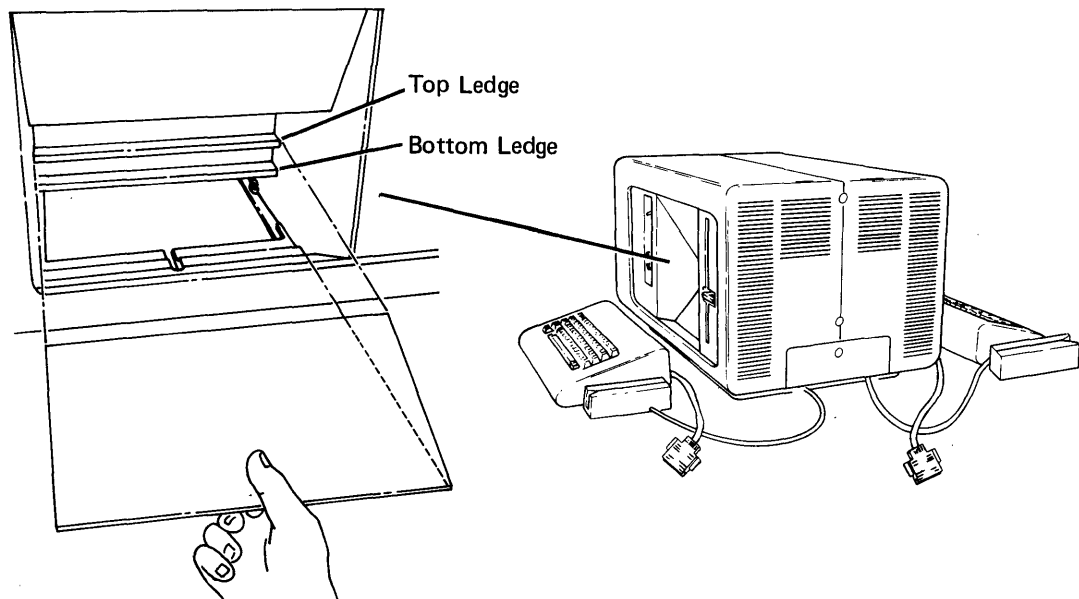
a. Make sure the diskette locking lever(s) is open.

Diskette Locking Lever
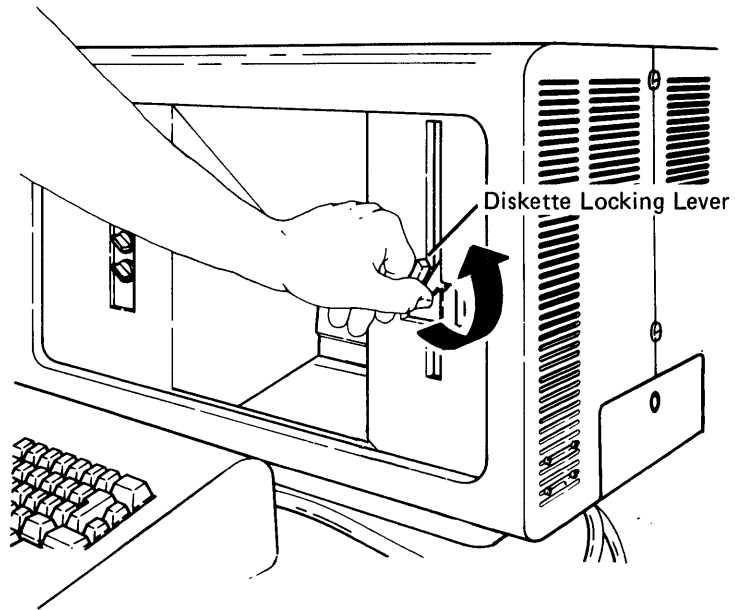
b. Make sure that the Power switch is set to the O (Off) position.
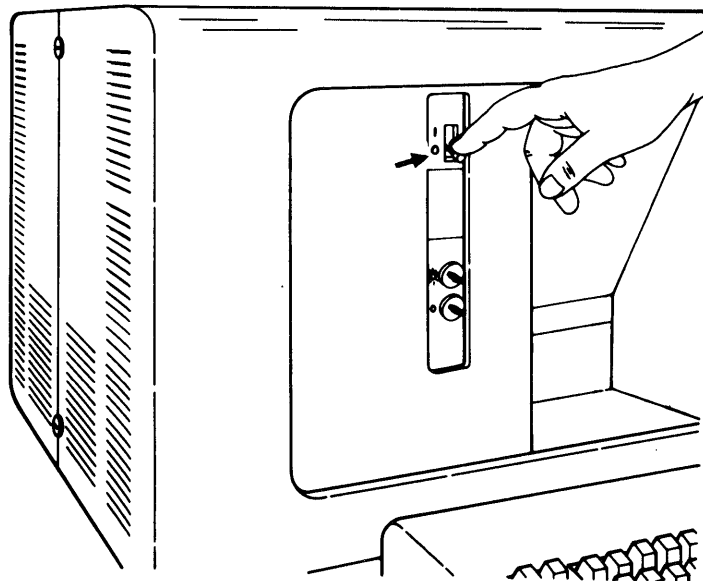
7. Remove the access cover by pressing down (with your thumb) and pulling out.

Access Cover
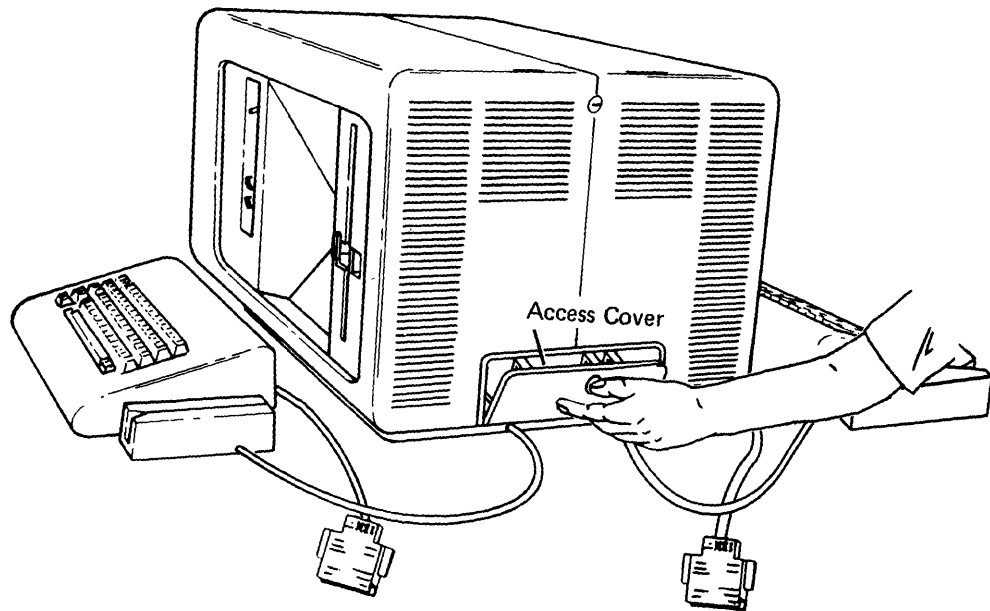
8. Connect the keyboard cables to the cable sockets.

a. **Push in the left keyboard cable, with the IBM logo facing to the right.**

Left Cable Socket

Left Keyboard Cable

IBM Logo

b. **Push in the right keyboard cable, with the IBM logo facing to the right.**

Right Cable Socket

Right Keyboard Cable

IBM Logo

Note: If the cable does not fit easily into the socket, be sure that the connector guides line up with the socket guides.

Socket
Guides
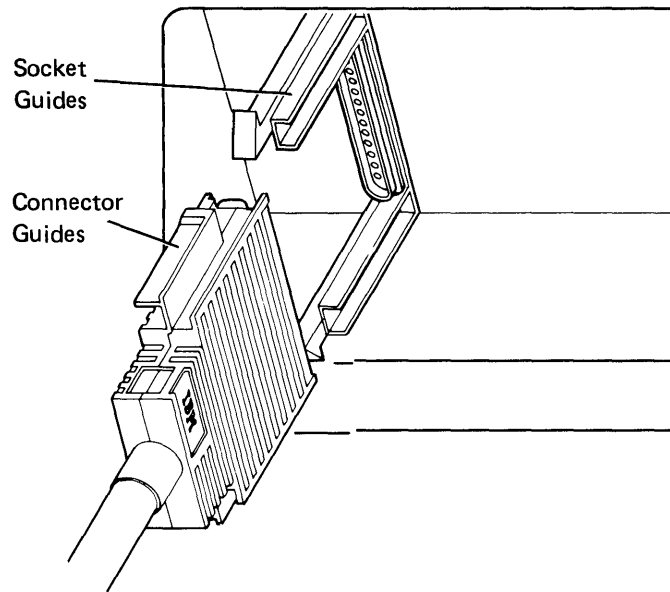
Connector
Guides

9. **Make sure that the snap-locks lock into position.**

Snap-Lock

Snap-Lock
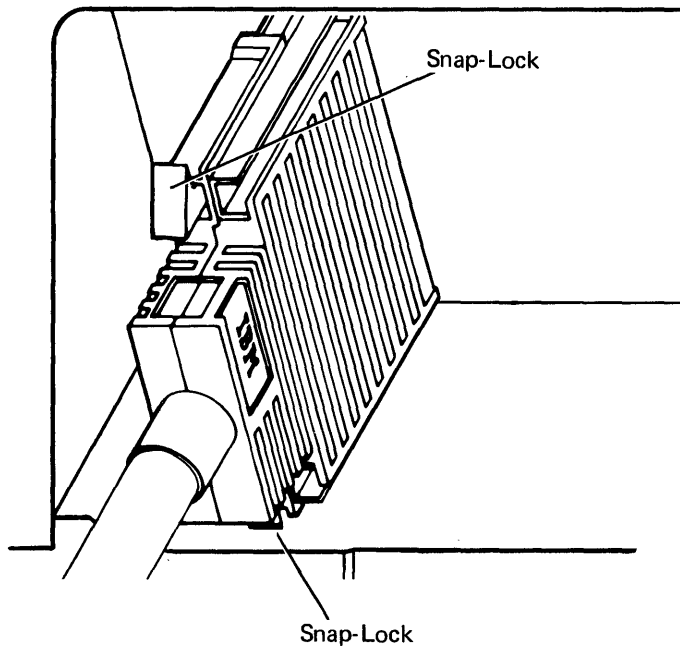
You will be connecting one or two cables to the IBM 5282. The cables are:

- One data station cable

- One diskette drive cable (optional)

Note: Under normal conditions, the cables do not carry high voltage and there is no danger of electrical shock. However, to ensure safety, the power cord plug should always be removed from the receptacle when you connect or disconnect the cables.

Each cable connector is color coded. The data station cable connector is color coded green. The diskette drive cable is color coded yellow.

Each socket is also color coded. The data station socket is color coded green. The diskette drive socket is color coded yellow.
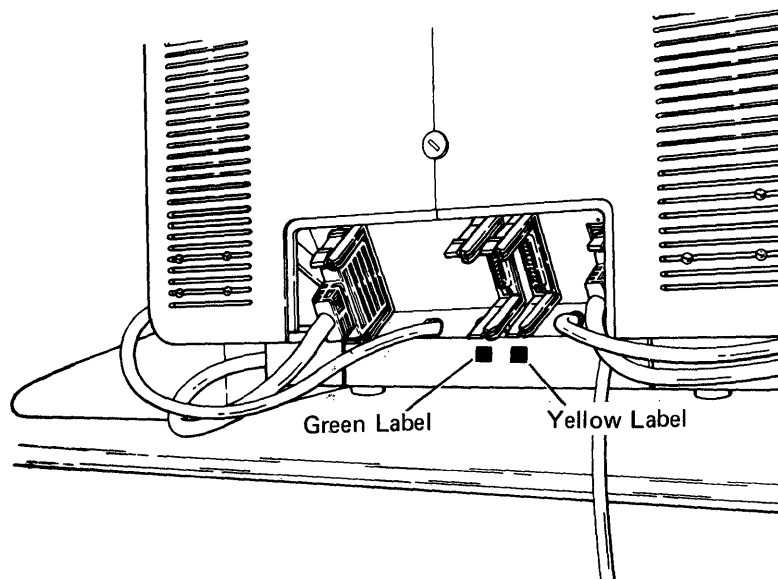
In addition to the color-coded connectors and sockets, there should be cable labels. If not, see the *IBM Planning and Site Preparation Guide.* The label identifies which device the cable connects to.

Identification Label

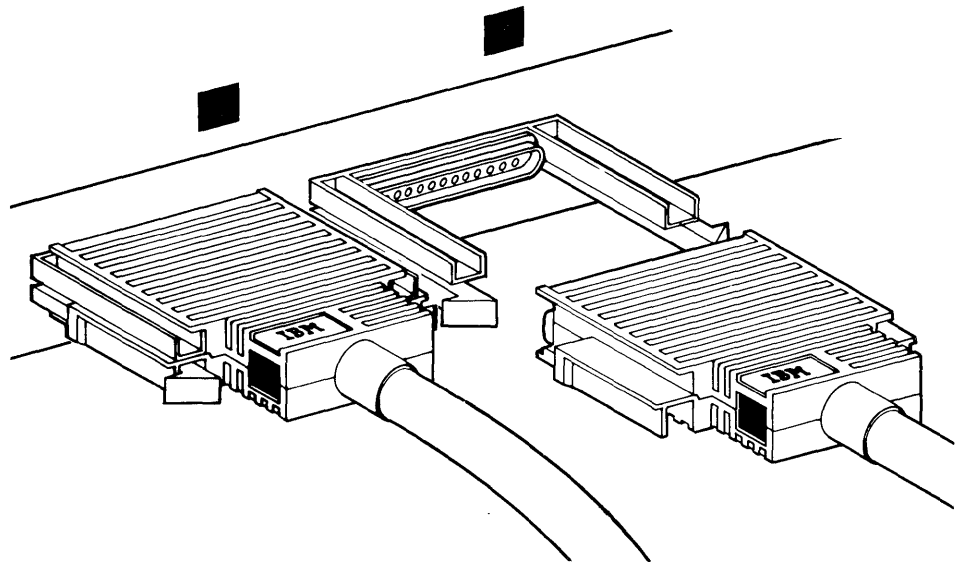10. **Read the following four steps (a, b, c, and d) before connecting the data station cable.**

   a. **Look at the data station socket with the green label. This is where you will connect the data station cable.**
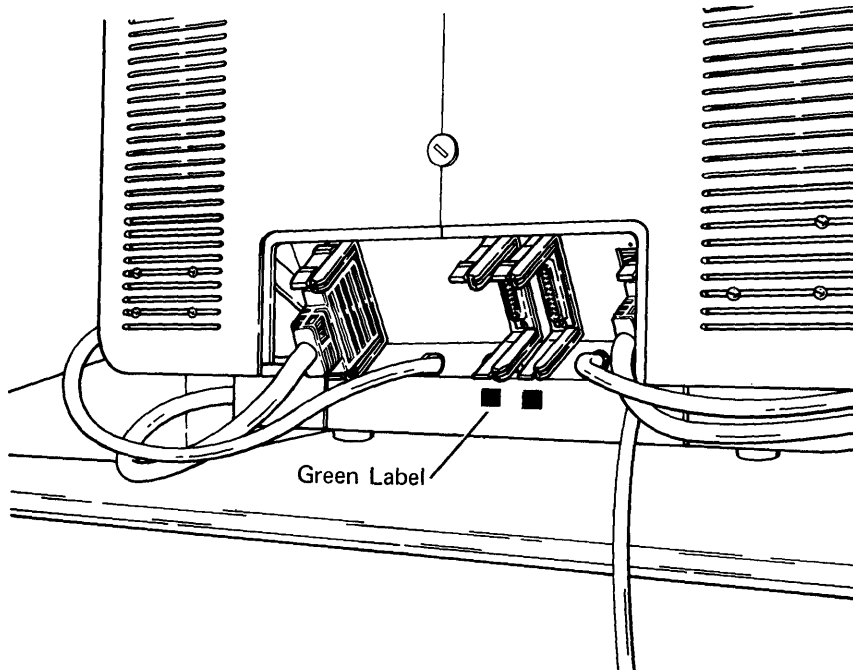
Green Label

b. Find a cable connector with a green label. Read the identification label to be sure that it connects to the IBM 5282.

c. Position the cable so that the green label is on top; then push the cable end into the socket (make sure that the colors match).


Note: If the cable does not fit easily into the socket, be sure that the connector guides line up with the socket guides.

d. **Make sure that the snap-locks lock into position.**
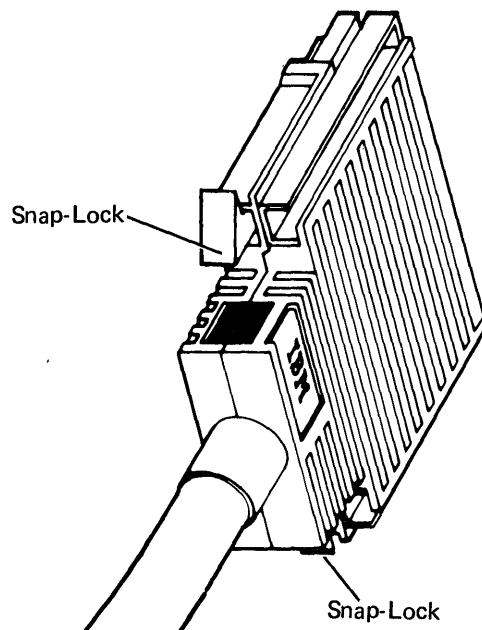
11. If the IBM 5282 has a diskette drive(s), go to step 12. If not, go to step 14.

12. Read the following four steps (a, b, c, and d) before connecting the diskette drive cable.

a. Look at the diskette drive socket with the yellow label. This is where you will connect the diskette drive cable.

Yellow Label

b. Find a cable connector with a yellow label. Read the identification label to be sure that it connects to the IBM 5282.

c. Position the cable so that the yellow label is on top; then push the cable end into the socket.

Note: If the cable end does not fit easily into the socket, be sure that the connector guides line up with the socket guides.

d. Make sure that the snap-locks lock into position.

13. Replace the cable access cover.

14. Cut and remove the string from the power cord plug.

15. Insert the power cord plug into a grounded receptacle.

16. One or more maintenance information manuals are shipped with each machine. Please be sure to keep these manuals handy. The service personnel will need these manuals to maintain your equipment.

   Label the IBM binder(s) that came with your device (if they have not been labeled) by doing the following:

   a. **Open an IBM binder and cut out the identification tab printed on the back cover of each manual.**
   b. **Fold the identification tabs (except for the first tab) in the following manner:**

   Note: Depending on the binder, you may only have two tabs to insert.

   c. **Insert the tabs into the plastic cover found on the binder, as shown below:**

   You have completed the setup procedure for the IBM 5282. The unconnected cable ends will be connected in another procedure.

Do you have another IBM 5282 to set up?

Yes No

   Do you have a printer to set up?

   Yes   No

      –   Set up your controller (IBM 5286, 5285, or 5288).

   –   Go set up the printer(s), using the customer setup manual that came with the printer. Do not connect the printer cable(s). The printer cable(s) will be connected using this manual. When you have completed the setup procedure for the printer(s), set up your controller (IBM 5285 or 5288) using this manual.

–   Return to step 1 in this section.

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Caution: This device weighs approximately 68 kilograms (150 pounds).
NEVER LIFT IT BY YOURSELF.

Machine Number

IBM

5286

1. **Find the keyboards and place them in front of the display screens.**

Keyboard
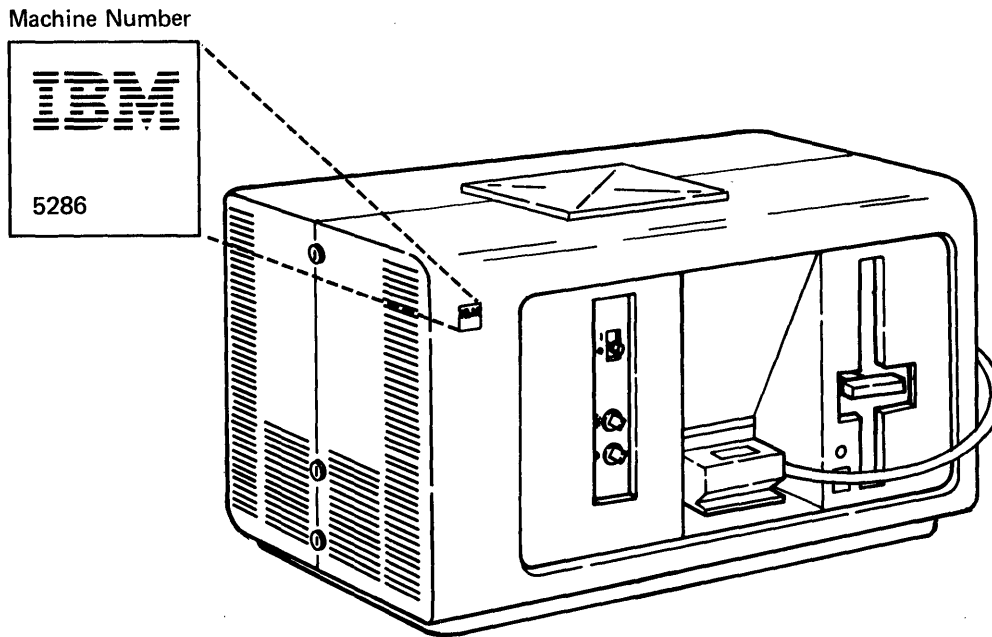
Keyboard

2. Check to see if you have a magnetic stripe reader in each of the mirror housings on the IBM 5286.
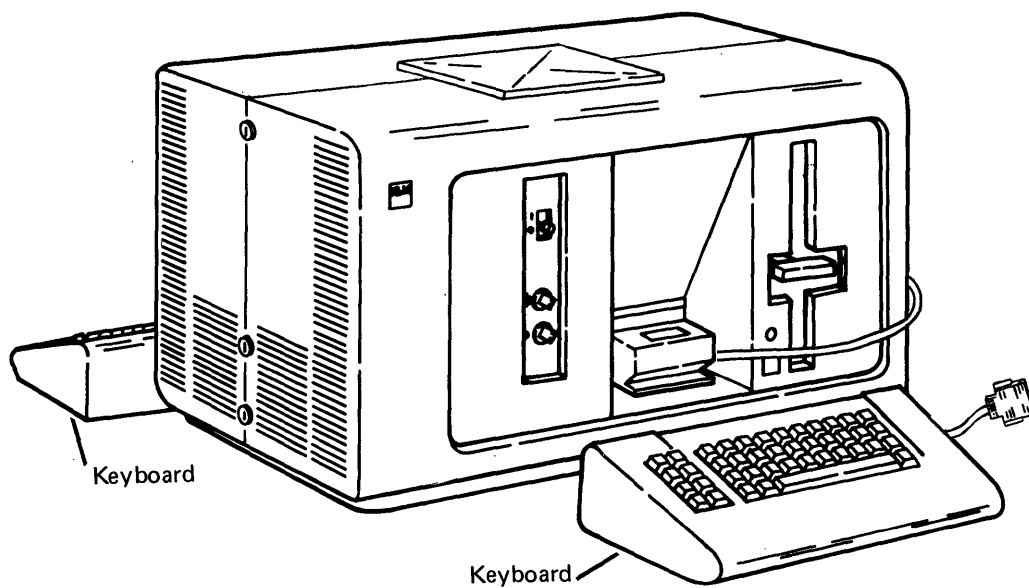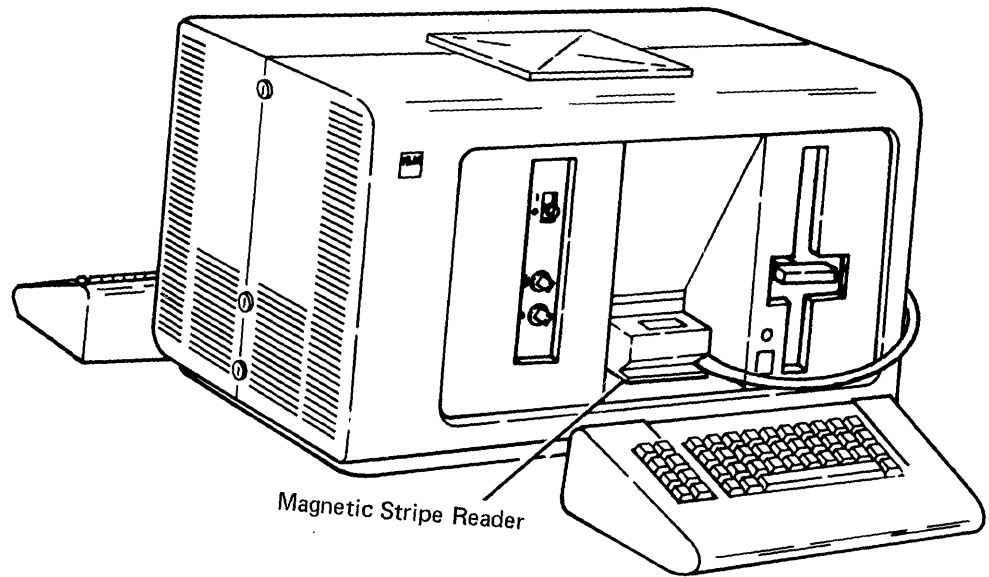
Magnetic Stripe Reader

3. If you have magnetic stripe readers, remove, unwrap, and place the readers beside the keyboards.


Magnetic Stripe Reader

Magnetic Stripe Reader
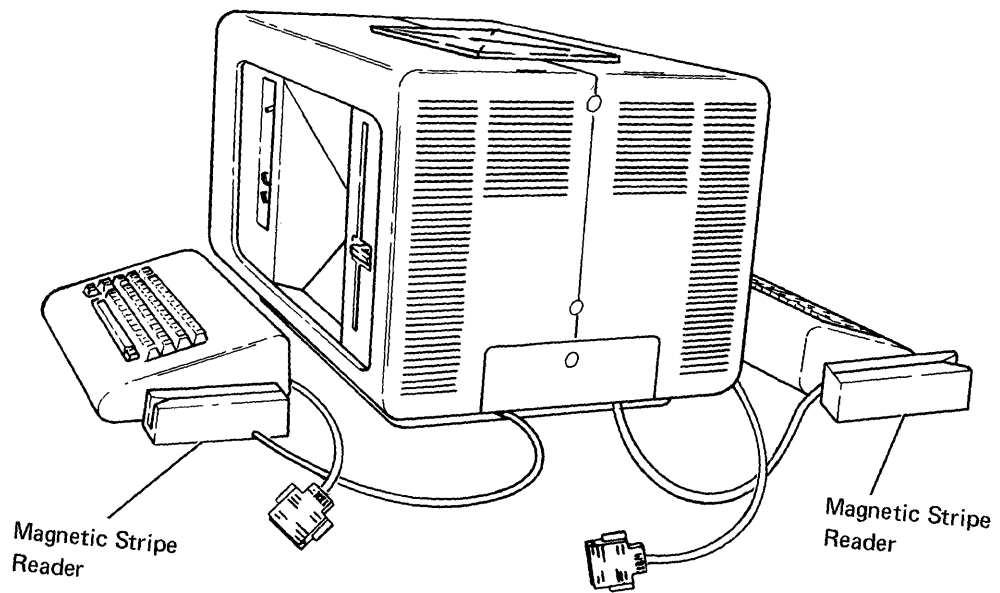
4. **Remove and unwrap the two mirrors from the top of your display station. If the mirrors are smudged, clean the mirrors with glass cleaner.**
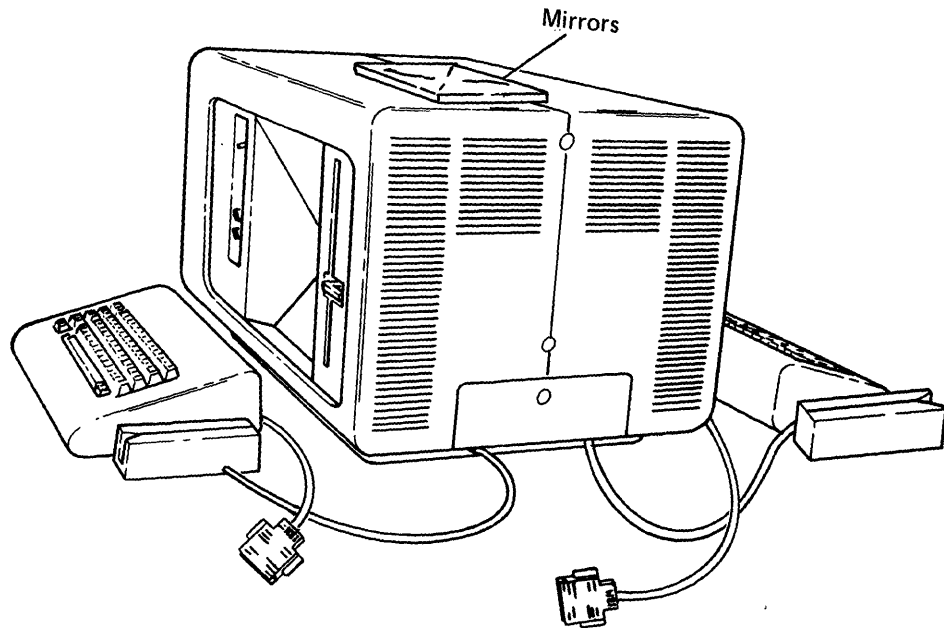
Mirrors

5. **Insert a mirror on each side of the display screen as follows:**

Lay the mirror on the top or bottom ledge of the mirror housing (this can be adjusted for viewing convenience); then lower the bottom of the mirror into its position.

Top Ledge

Bottom Ledge

6. Do the following:
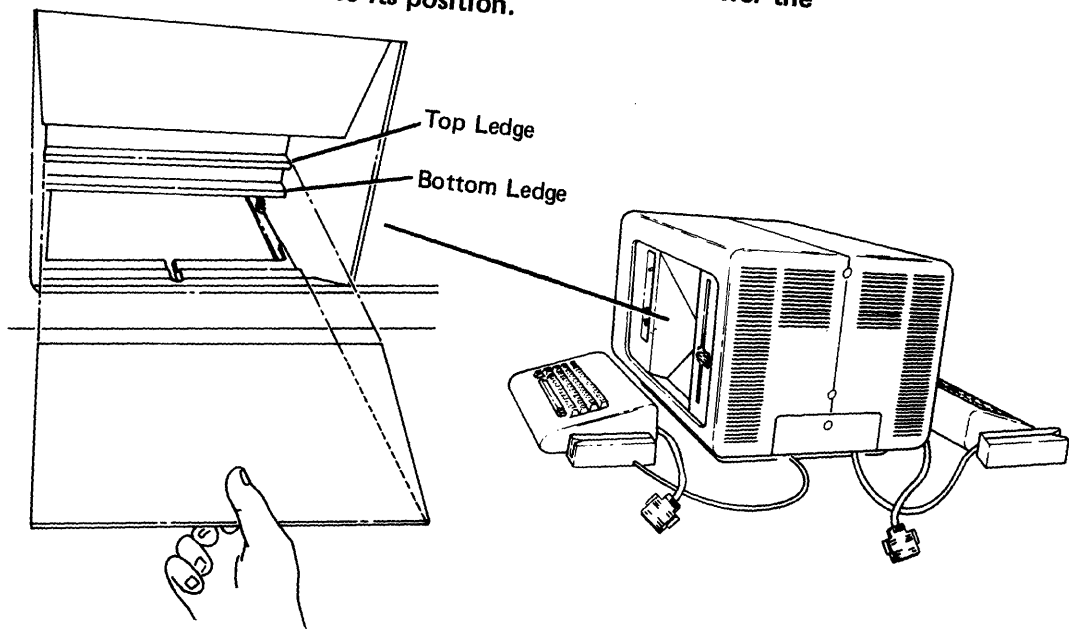
a. Make sure the diskette locking lever(s) is open.

Diskette Locking Lever
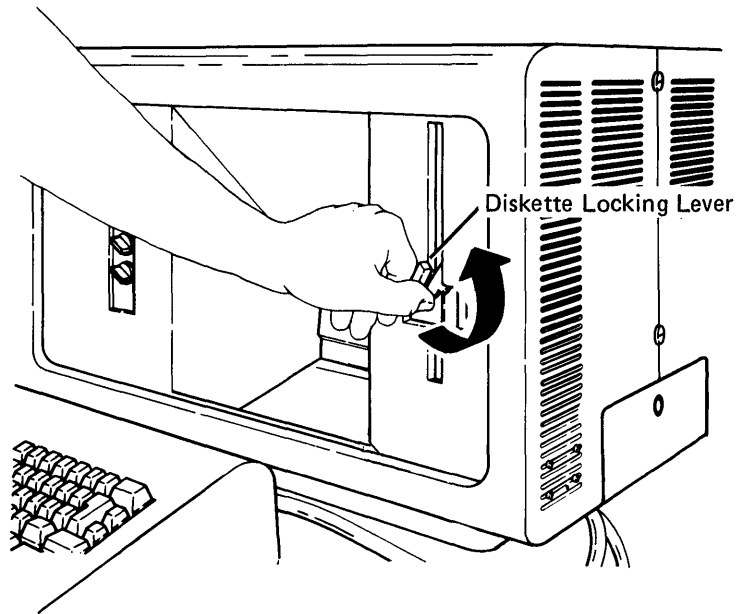
b. Make sure that the Power switch is set to the O (Off) position.
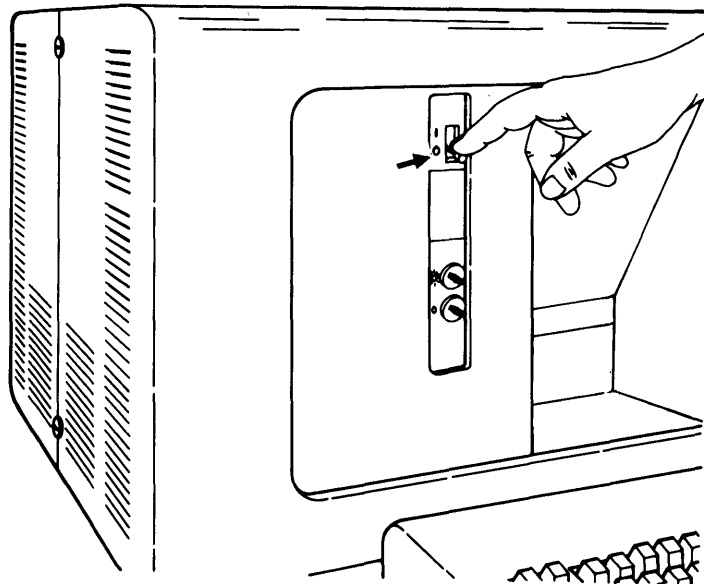
7. If your device has the Keylock feature, read and do the following:

   a. The keys for the Keylock feature are packaged in the customer setup envelope. The envelope looks like this:
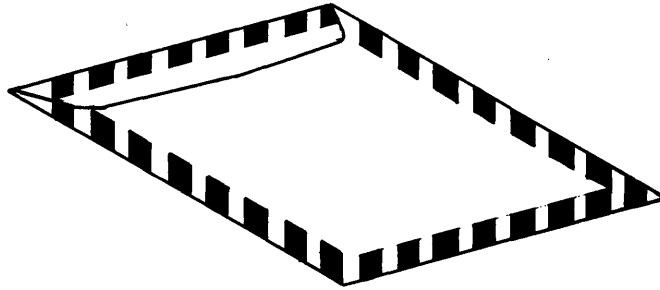
   b. Record the identification number of the keys.

   c. Insert the key and turn it to the right. If the key does not turn to the right, try the other key.

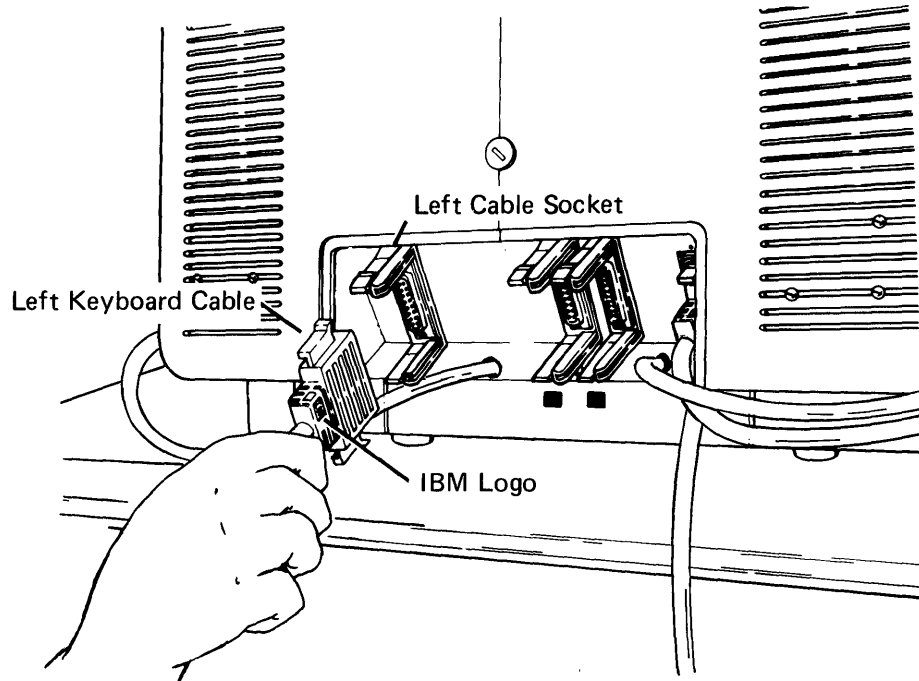

   Locked Position

IBM 5286 Setup
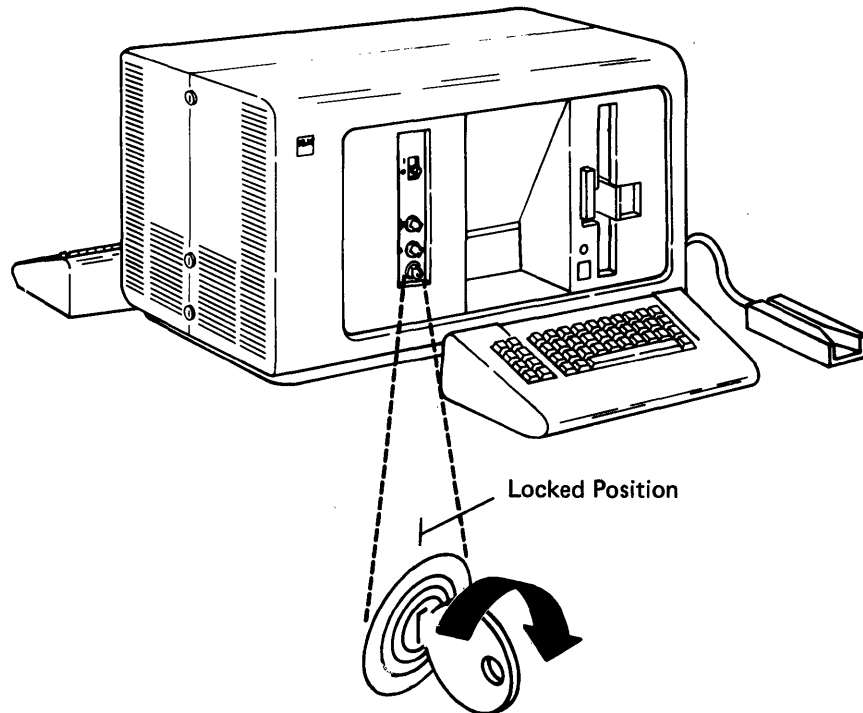
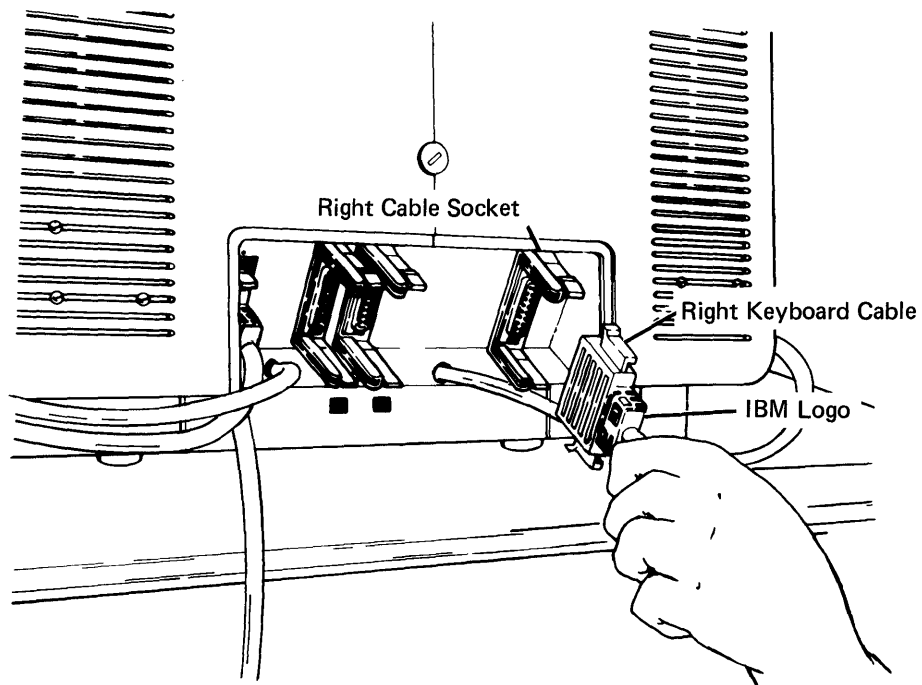8. Remove the access cover by pressing down (with your thumb) and pulling out.

Access Cover
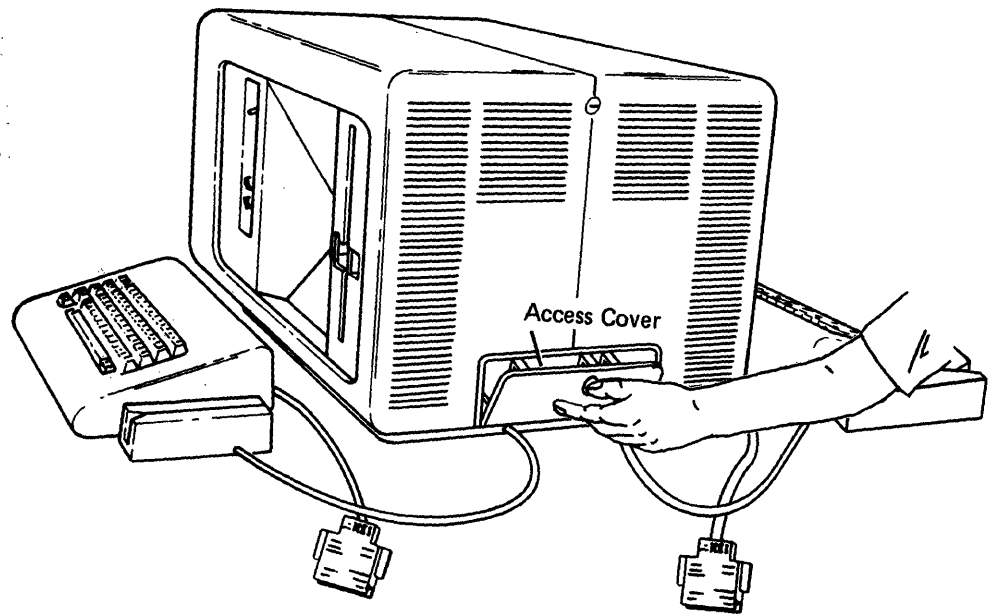
9. Connect the keyboard cables to the cable socket.

a. Push in the left keyboard cable, with the IBM logo facing to the right.
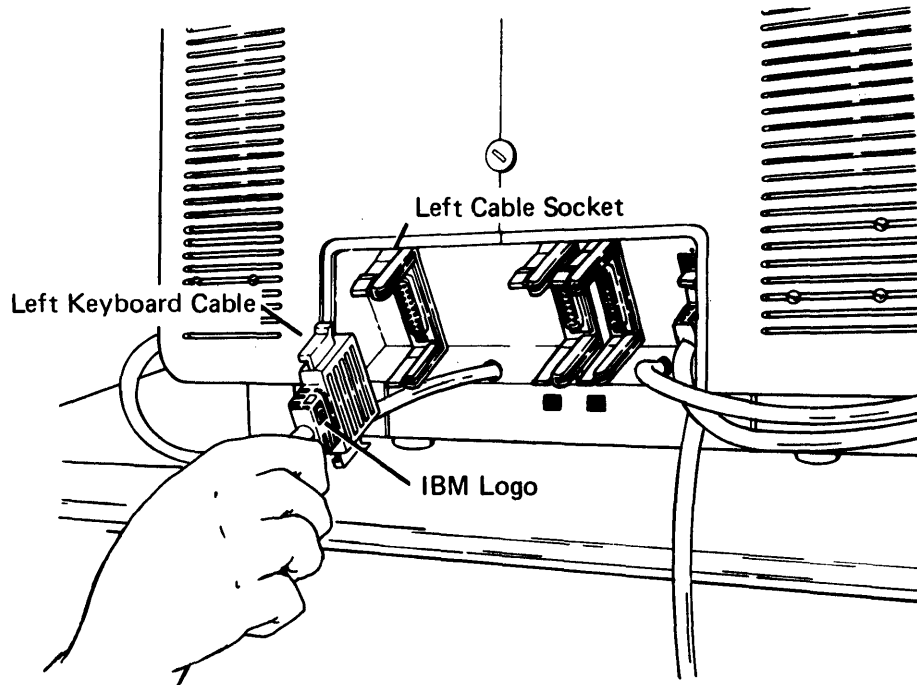
Left Cable Socket

Left Keyboard Cable

IBM Logo

b. Push in the right keyboard cable, with the IBM logo facing to the right.

Right Cable Socket

Right Keyboard Cable

IBM Logo

Note: If the cable does not fit easily into the socket, be sure that the connector guides line up with the socket guides.
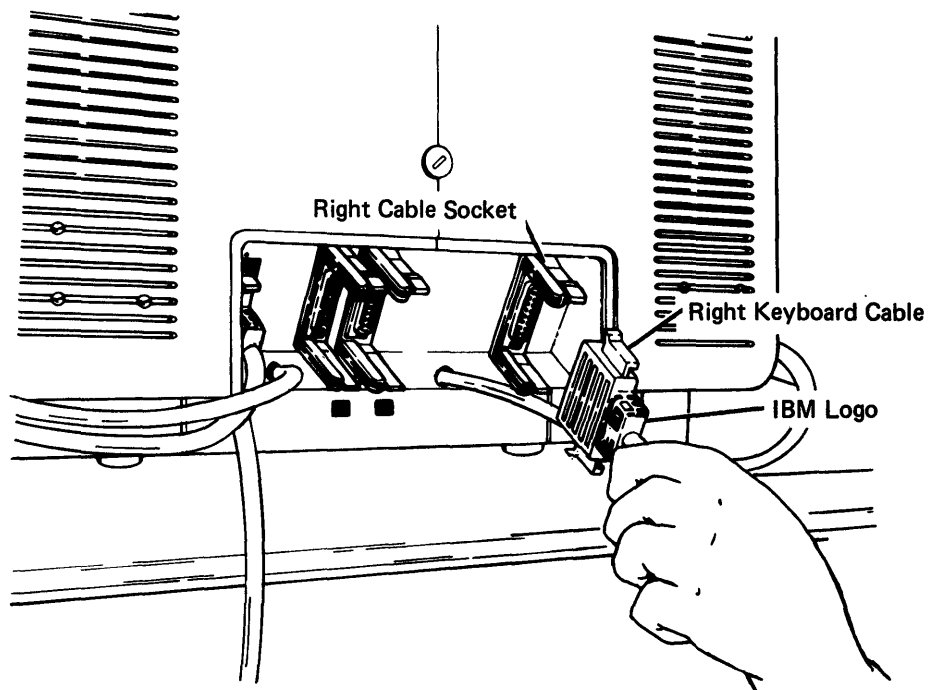
Socket Guide

Connector Guide
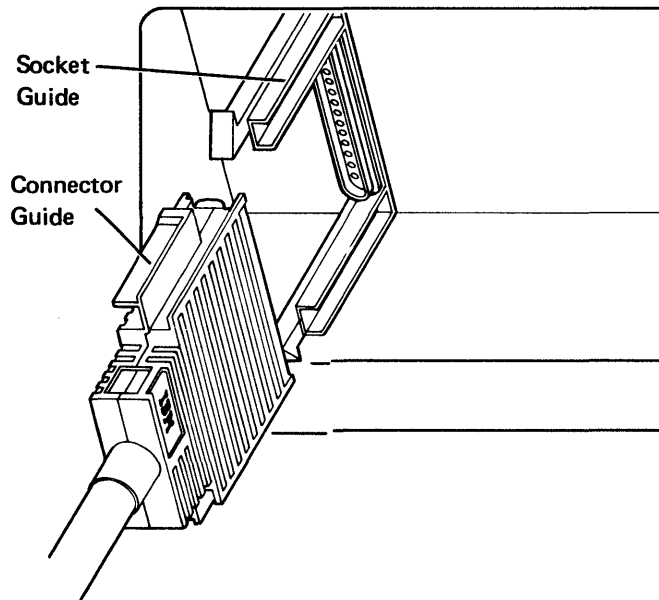
10. Make sure that the snap-locks lock into position.

Snap-Lock

Snap-Lock
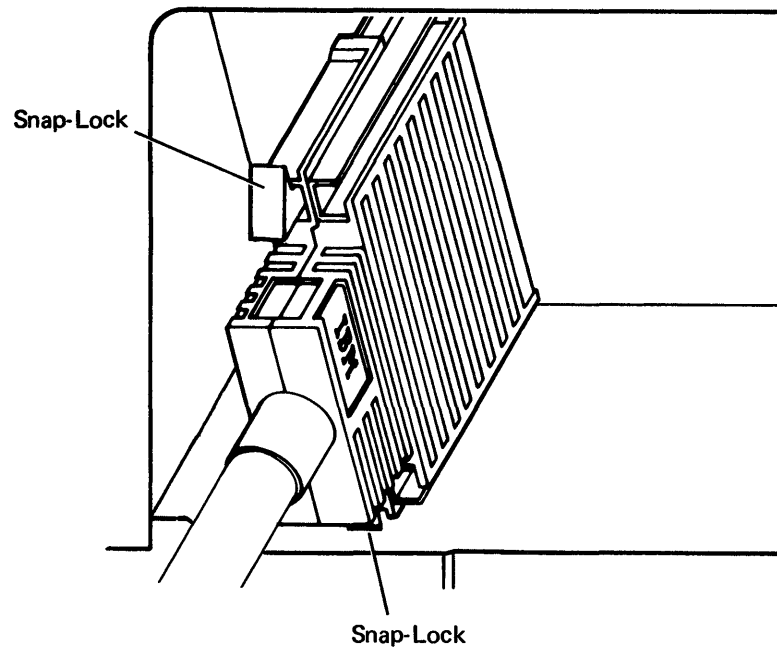
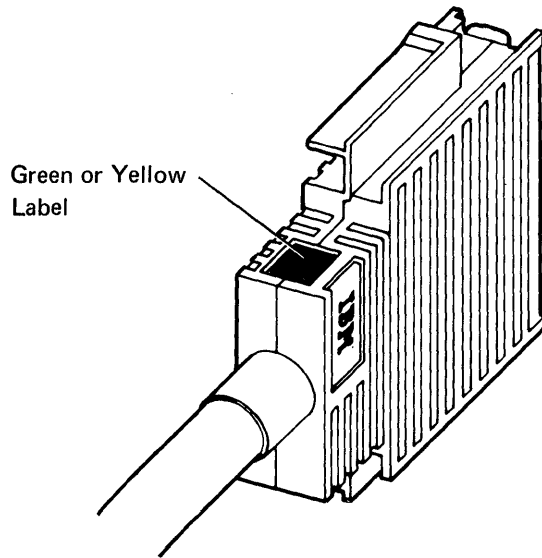If you are not attaching an auxiliary data station to the IBM 5286, go to step 13. If you are, you will be connecting up to two more cables. The cables are:

- The data station cable

- The diskette drive cable (optional)

Note: Under normal conditions, the cables do not carry high voltage and there is no danger of electrical shock. However, to ensure safety, the power cord plug should always be removed from the receptacle when you connect or disconnect the cables.
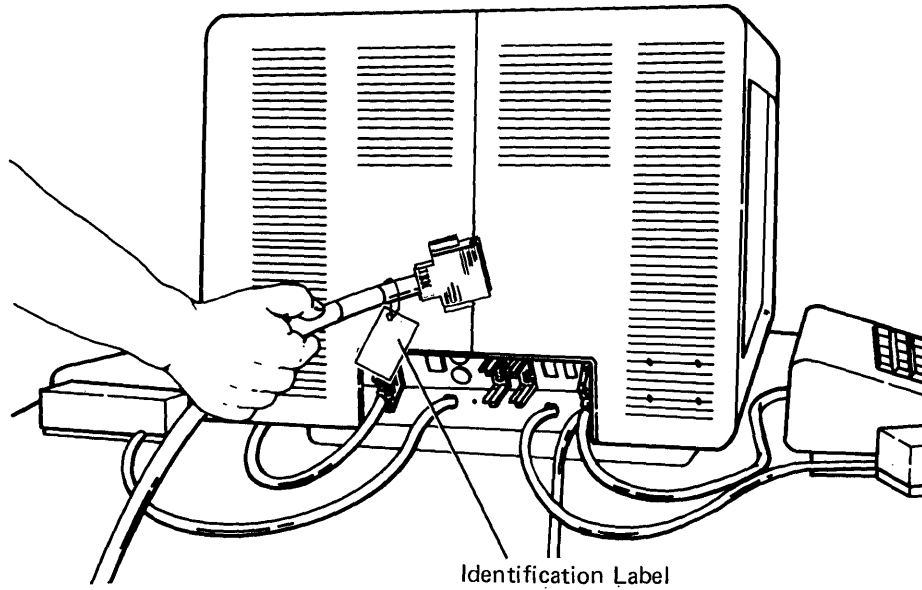
Each cable connector is color coded. The data station cable connector is color coded green. The diskette drive cable is color coded yellow.

Each socket is also color coded. The data station socket is color coded green. The diskette drive socket is color coded yellow.

In addition to the color-coded connectors and sockets, there should be identification labels. If not, see the *Planning and Site Preparation Guide*. The label identifies which device the cable connects to.
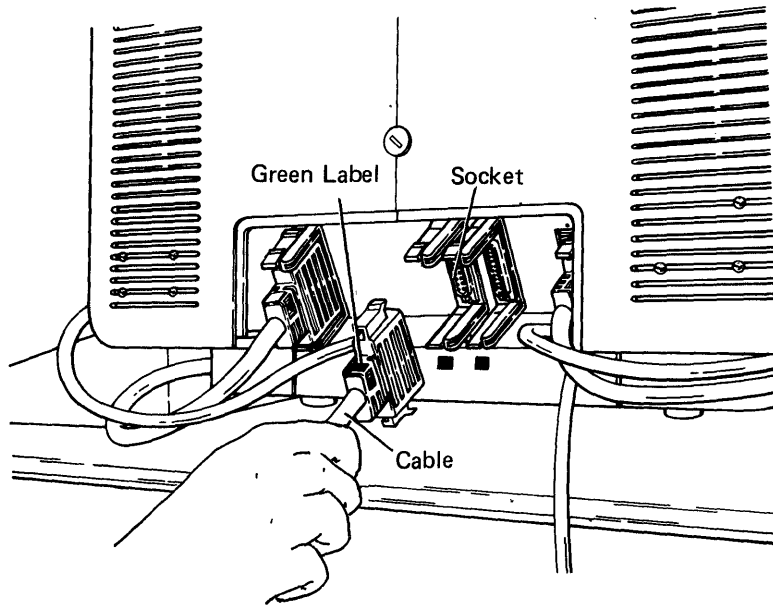
Identification Label

11. **Read the following four steps (a, b, c, and d) before connecting the data station cable.**

a. **Look at the data station socket with the green label. This is where you will connect the data station cable from an auxiliary device.**

Green Label
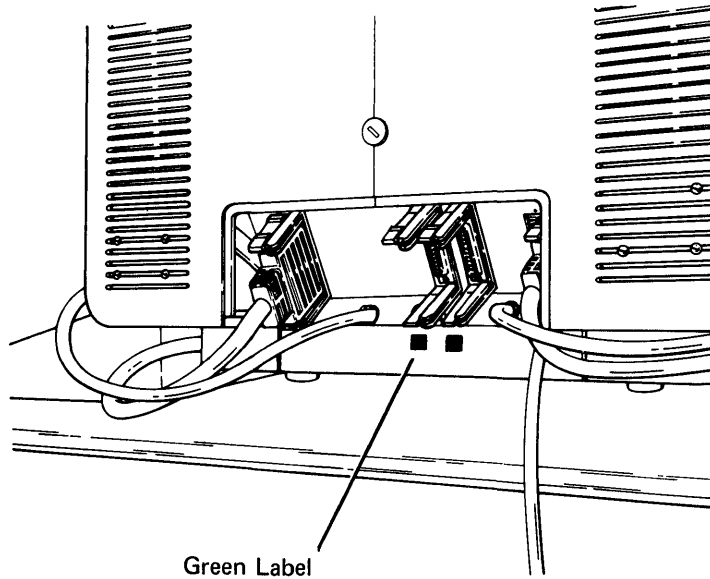
b. **Find a cable connector with a green label.**

c. **Position the cable so that the green label is on top; then push the cable end into the socket (make sure that the colors match).**

Green Label

Cable

Note: If the cable does not fit easily into the socket, be sure that the connector guides line up with the socket guides.

d. **Make sure that the snap-locks lock into position.**

12. **If you are not attaching a diskette drive cable, go to step 13. If you are, read the following four steps (a, b, c, and d) before connecting the diskette drive cable.**

a. **Look at the diskette drive socket with the yellow label. This is where you will connect the diskette drive cable.**

Socket

Yellow Label

b. **Find a cable connector with a yellow label.**

c. **Position the cable so that the yellow label is on top; then push the cable end into the socket.**
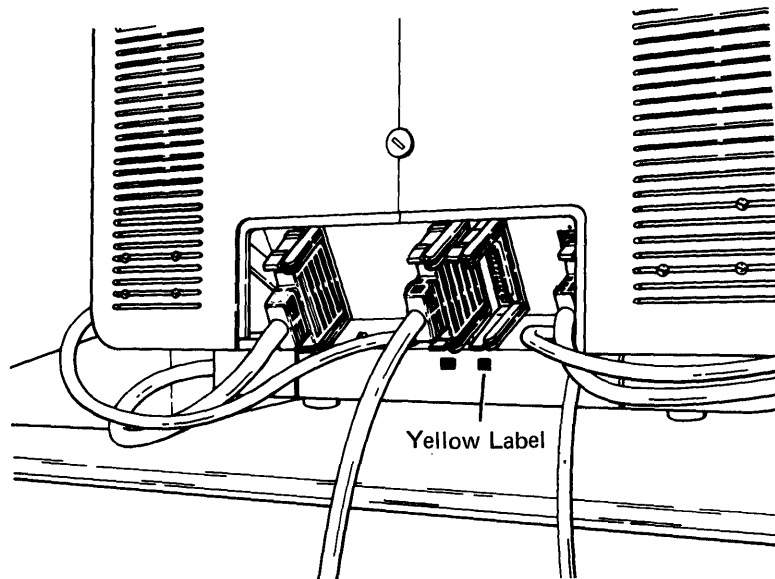

Yellow Label

Cable

Note: If the cable end does not fit easily into the socket, be sure that the connector guides line up with the socket guides.

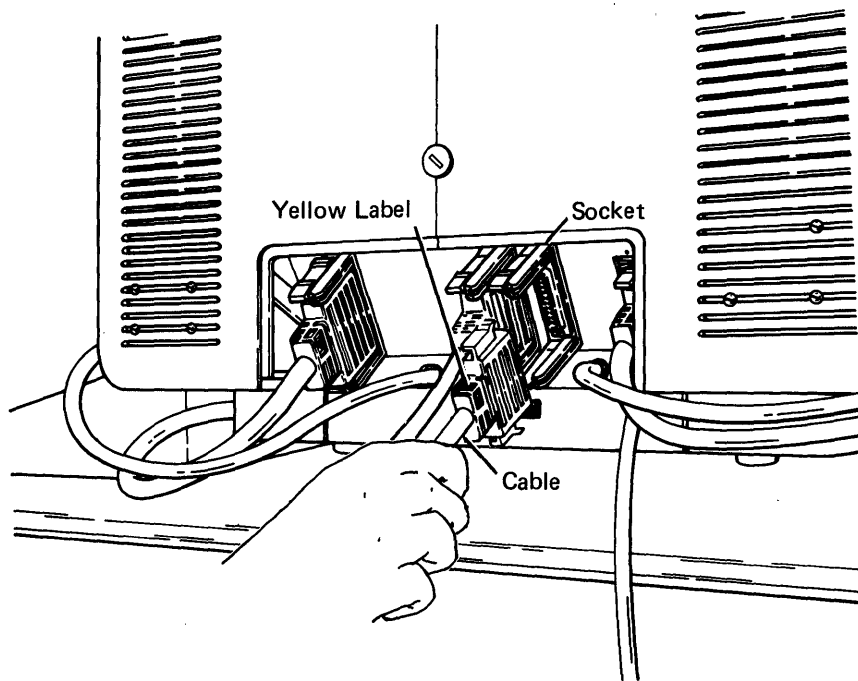d. **Make sure that the snap-locks lock into position.**

13. Replace the cable access cover.

14. Cut and remove the string from the power cord plug.

15. Insert the power cord plug into a grounded receptacle.

16. One or more maintenance information manuals are shipped
    with each machine. Please be sure to keep these manuals
    handy. The service personnel will need these manuals to
    maintain your equipment.

    **Label the IBM binder(s) that came with your device (if they
    have not been labeled) by doing the following:**

    a. **Open an IBM binder and cut out the identification tab printed on
       the back cover of each manual.**
    b. **Fold the identification tabs (except for the first tab) in the
       following manner:**

    Note: Depending on the binder, you may only have two tabs to insert.

    c. **Insert the tabs into the plastic cover found on the binder, as
       shown below:**

    You have completed the setup procedure for the IBM 5286. Go to Section 7,
    Labeling Your System. After you have completed the labeling procedures, you
    will be sent to Section 8, *Verification Procedure.*

Caution: This device weighs approximately 68 kilograms (150 pounds).
NEVER LIFT IT BY YOURSELF.

Machine Number

IBM

5285
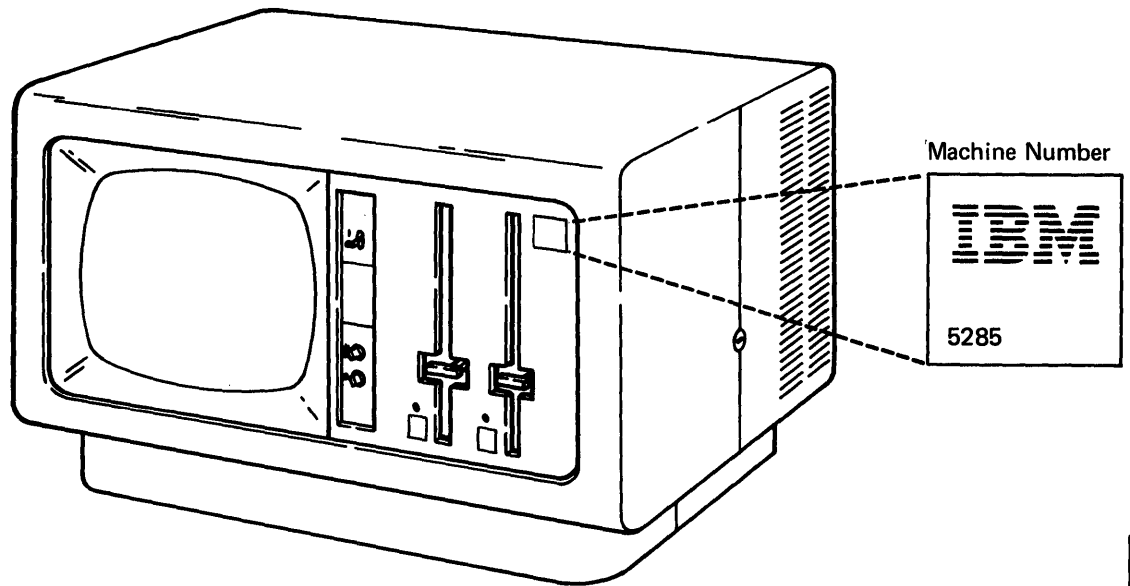
1. Check to see if you have a magnetic stripe reader taped to the
   front of your data station. If you have a magnetic stripe reader,
   remove, unwrap, and place the reader beside the data station.

Magnetic Stripe Reader

IBM 5285 Setup
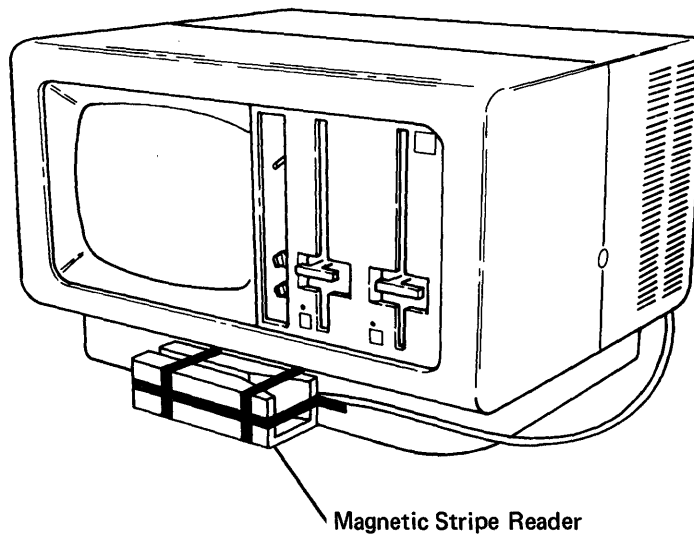
2. Place the keyboard to one side of the display screen.
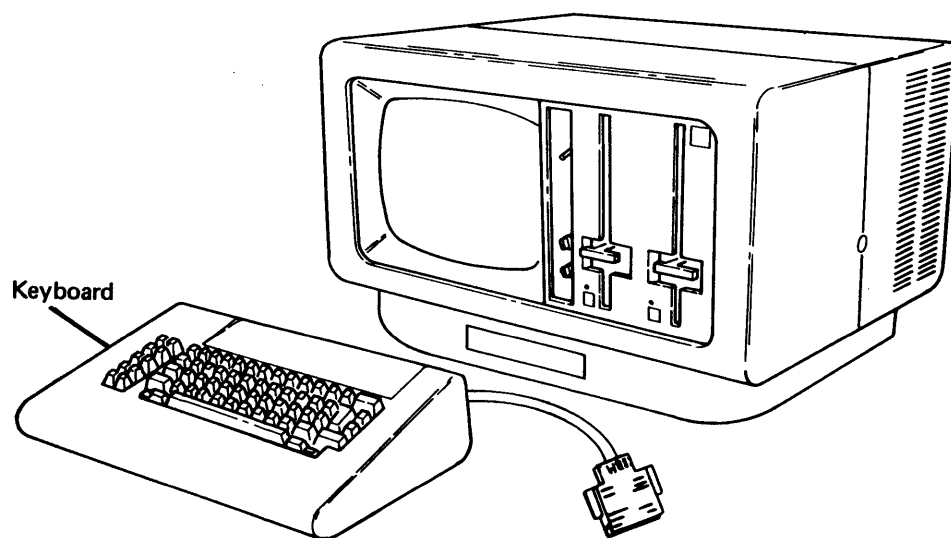
Keyboard

3. Connect the keyboard cable by positioning the connector so that the IBM logo is up; and then push the connector into the socket.

IBM Logo

Socket

Keyboard Cable
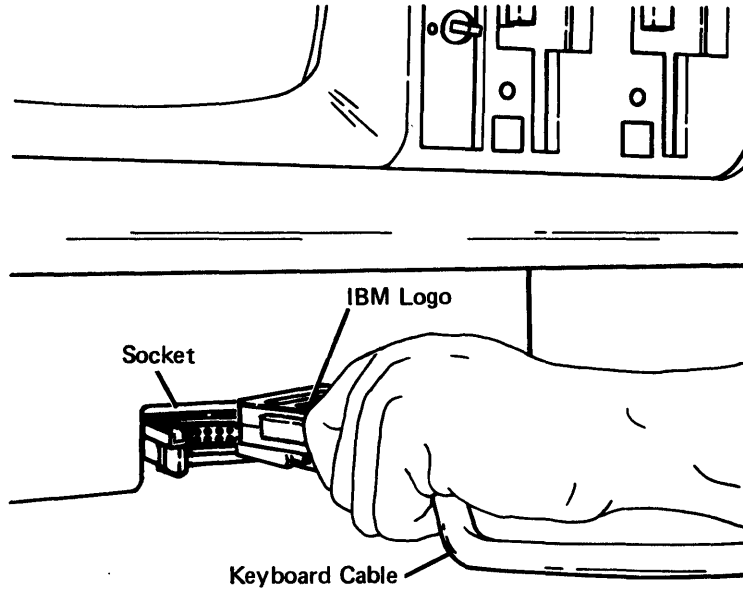
4. Make sure that the snap-locks lock into position.

Snap-Lock

Snap-Lock
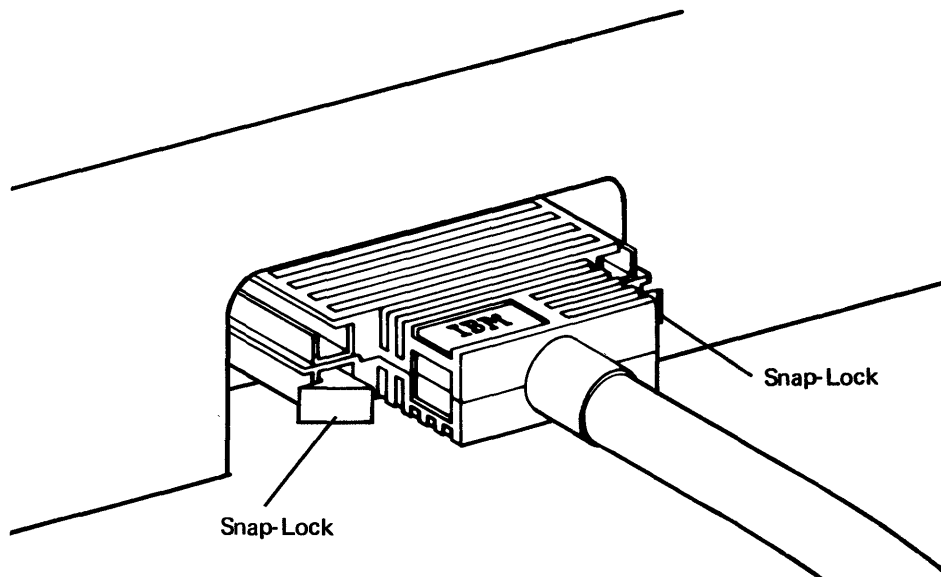
5. If you have a diskette drive(s), make sure the diskette locking lever(s) is open.
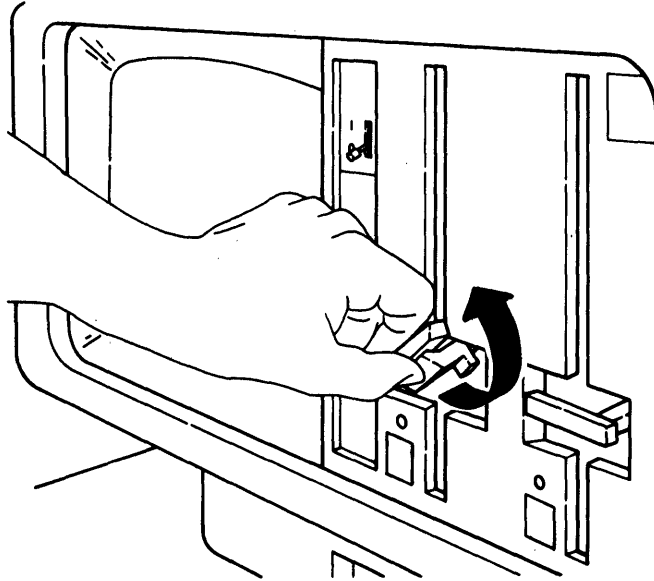
6. Make sure that the Power switch is set to the O (Off) position.
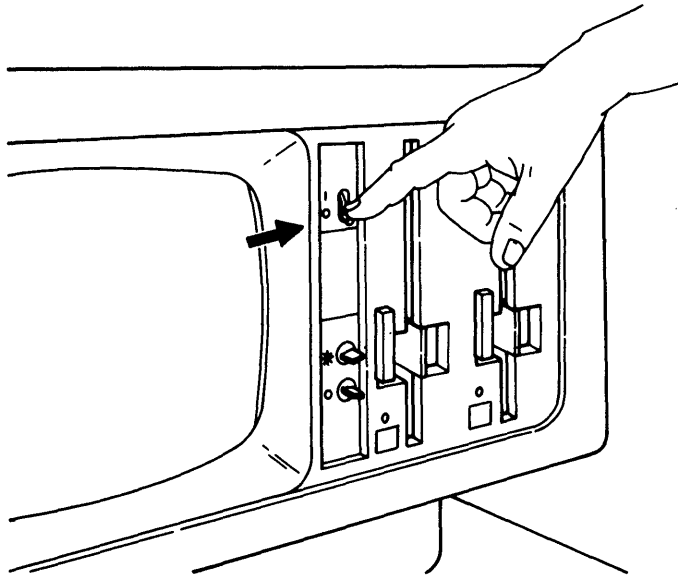
7. If your device has the Keylock feature, read and do the following. If not, go to step 8.

   a. The keys for the Keylock feature are packaged in the customer setup envelope. The envelope looks like this:
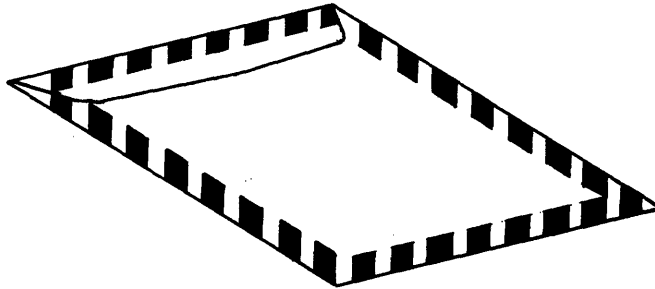
   b. Record the identification number of the keys.

   c. Insert a key and turn it to the right. If the key does not turn to the right, use the other key.

Locked Position
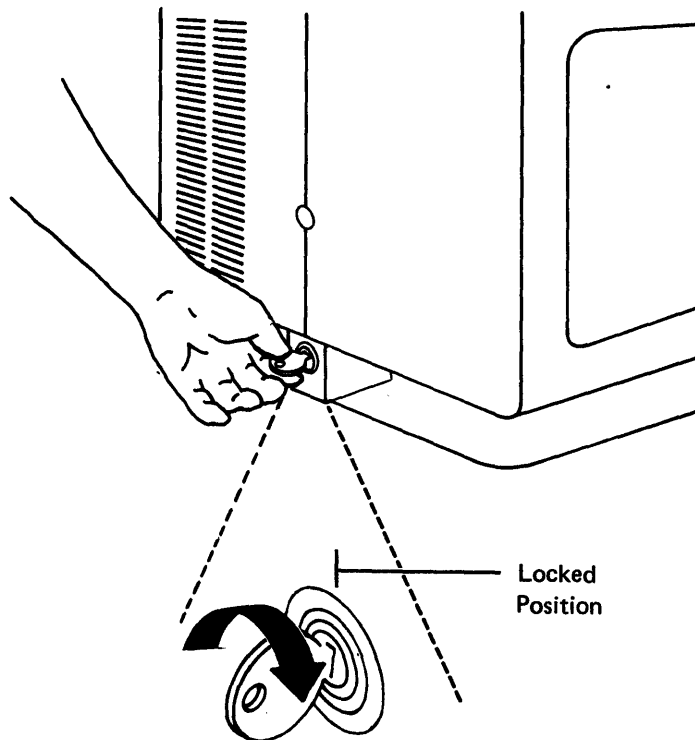
8. **If you are not attaching an auxiliary data station to the IBM 5285, go to step 12.**

If you are, you will be connecting up to two more cables. The cables are:

• The data station cable

• The diskette drive cable (optional)

Note: Under normal conditions, the cables do not carry high voltage and there is no danger of electrical shock. However, to ensure safety, the power cord plug should always be removed from the receptacle when you connect or disconnect the cables.

Each cable connector is color coded. The data station cable connector is color coded green. The diskette drive cable is color coded yellow.

Green or Yellow
Label

Each socket is also color coded. The data station socket is color coded green. The diskette drive socket is color coded yellow. When you plug in a cable connector, make sure that the colors match.
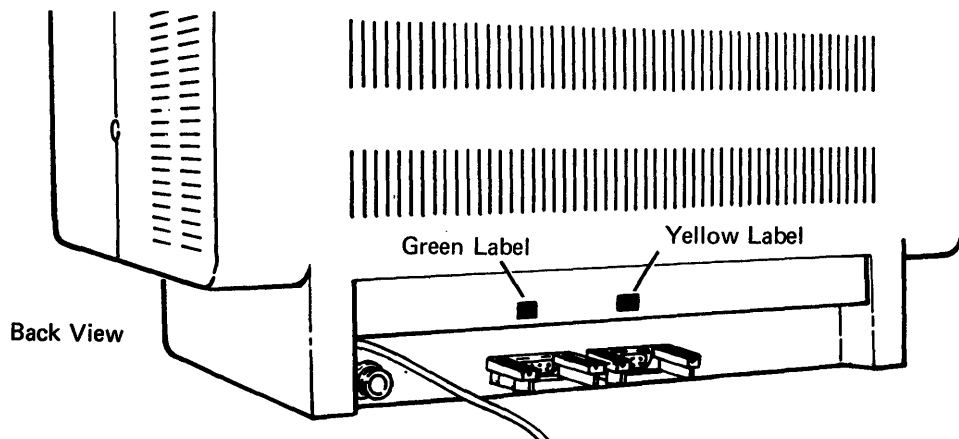
Green Label   Yellow Label

Back View

In addition to the color-coded connectors and sockets, there should be identification
labels. If not, see the *IBM 5280 Planning and Site Preparation Guide.* The label
identifies which device the cable connects to.

Identification Label

9. **Read the following four steps (a, b, c, and d) before connecting the data station cable.**
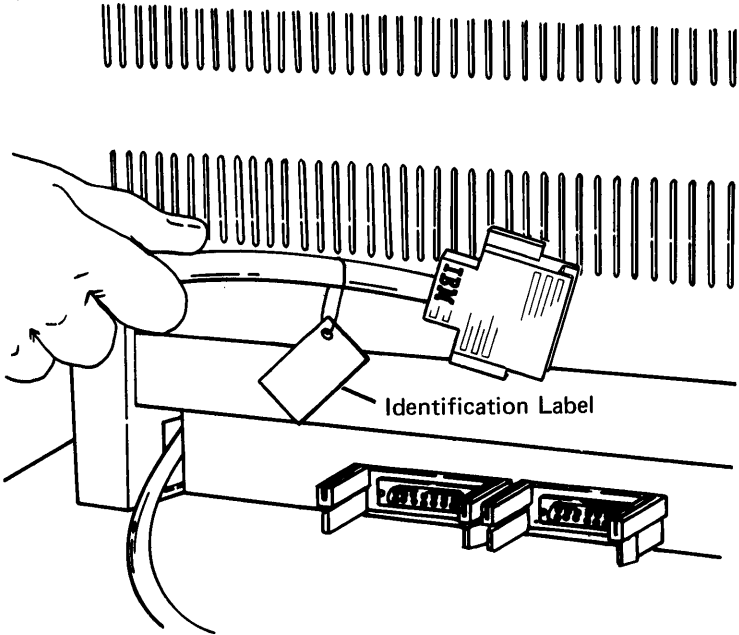
   a. Look at the data station socket with the green label. This is where you will connect the data station cable from an auxiliary device.

Green Label

Data Station
Socket
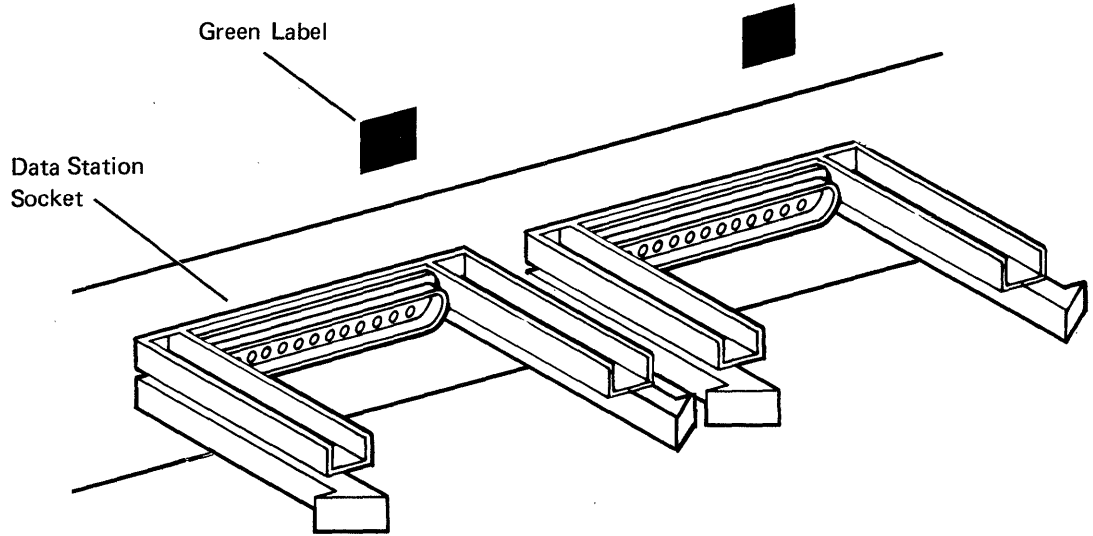
   b. Find a cable connector with a green label.

   c. Position the cable so that the green label is to your left; then push the cable end into the socket.
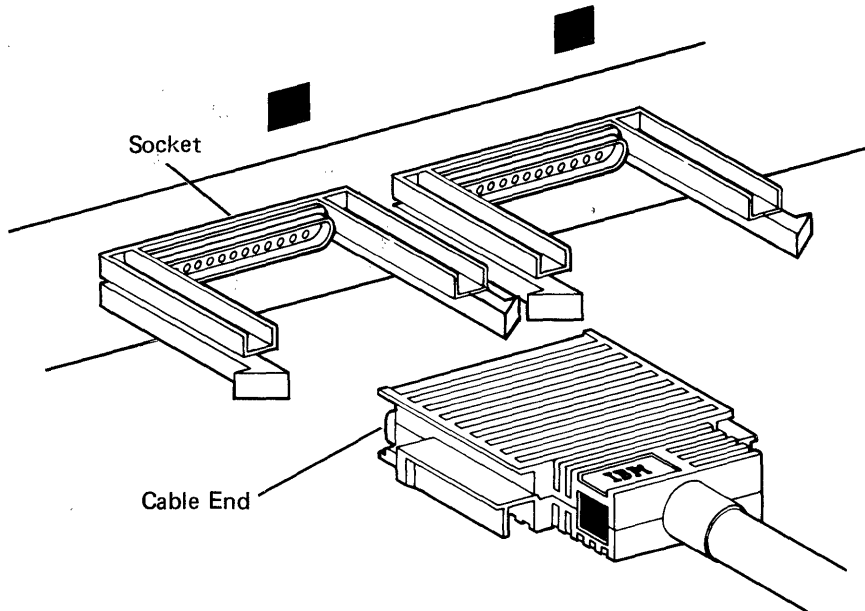
Socket

Cable End

Note: If you have trouble pushing in the cable, make sure that the connector guides line up with the socket guides.

Socket
Guides

Connector
Guides
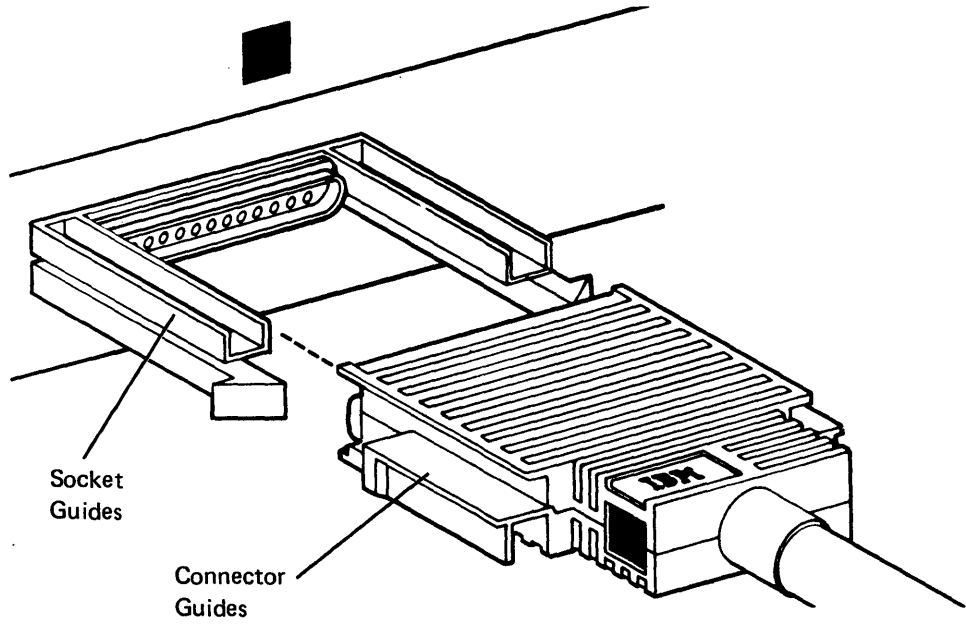
d. Make sure that the snap-locks lock into position.

Snap-Lock

Snap-Lock
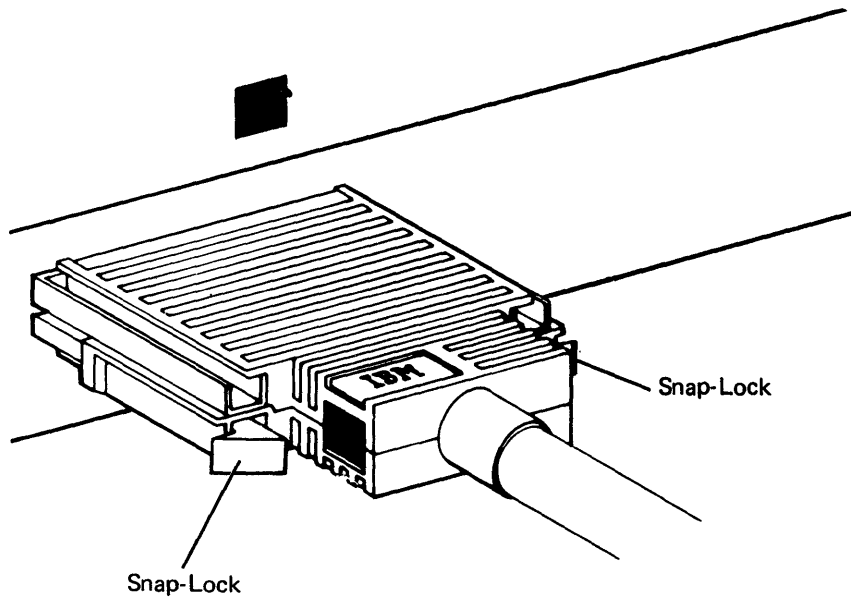
10. If the auxiliary data station has a diskette drive(s), go to step 11. If not, go to step 12.

11. Read the following four steps (a, b, c, and d) before connecting the diskette drive cable.

   a. Look at the diskette drive socket with the yellow label. This is where you will connect the diskette drive cable from an auxiliary device.

Yellow Label

Diskette Drive Socket
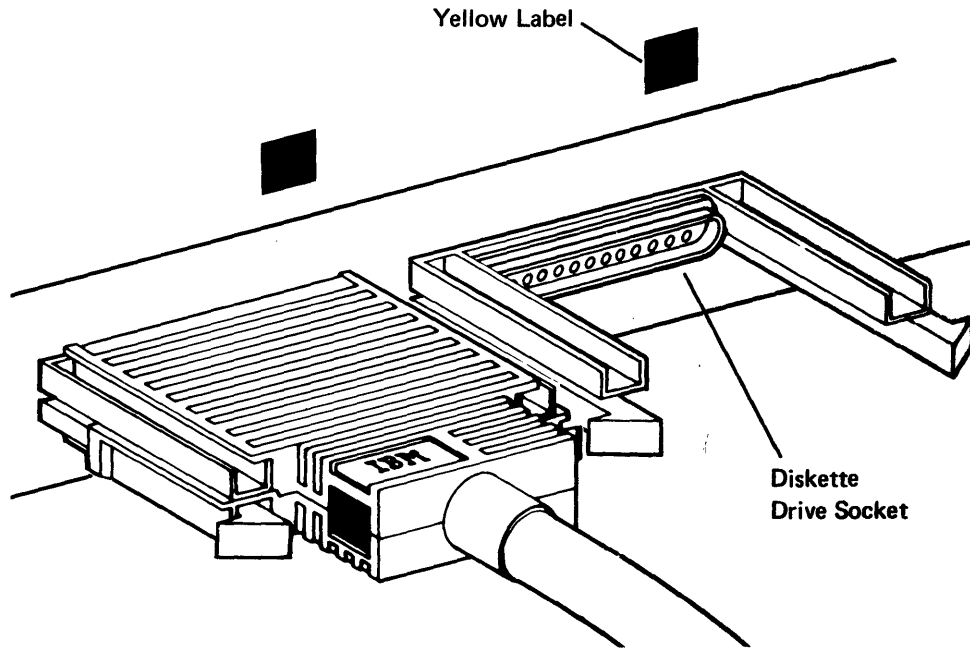
   b. Find a cable connector with a yellow label.

c. Position the cable so that the yellow label is to your left; then push the cable end into the socket.
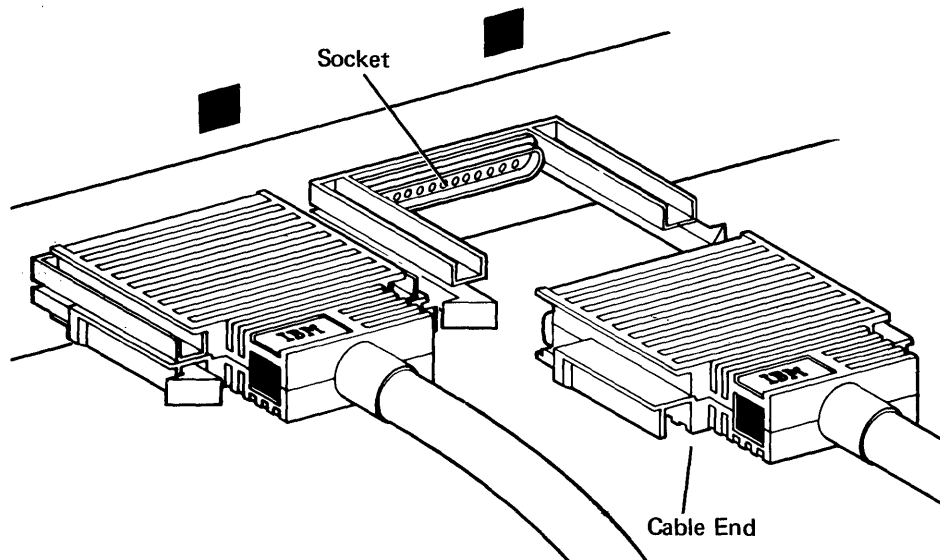
Socket

Cable End

Note: If you have trouble pushing the connector into the socket, make sure that the connector guides line up with the socket guides.

d. Make sure that the snap-locks lock into position.

Snap-Lock

Snap-Lock
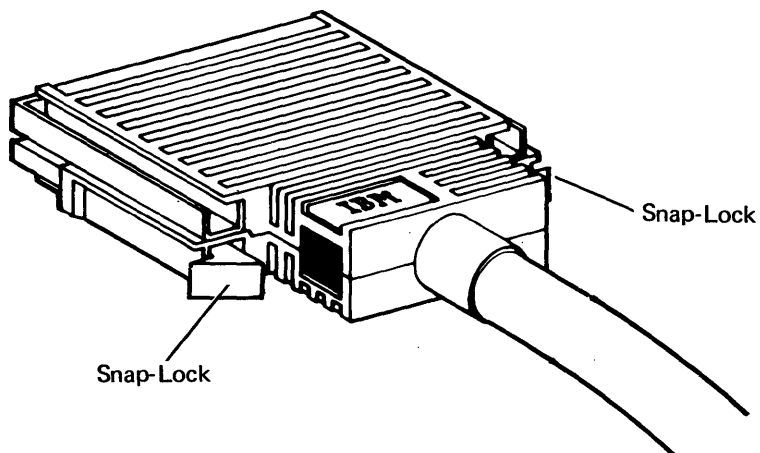
12. If you have a printer, continue with this step. If not, go to step 13.

If you have an IBM 5225 printer, an IBM 5224 printer, or an IBM 5256 printer, go to step 12.1. If you have an IBM 5217 printer, an IBM 5222 printer, or an IBM 5242 printer, connect the cable as follows:

a. Locate the printer socket (Number 21).
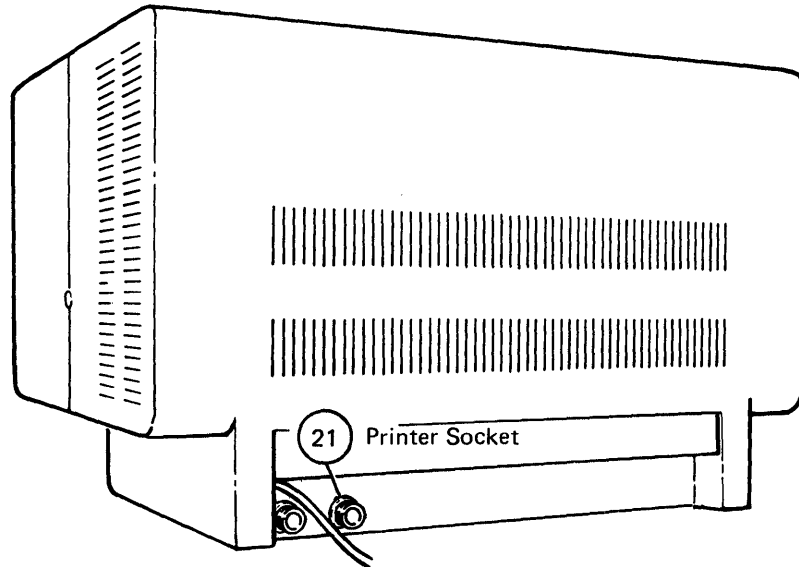
Back View (IBM 5285)

b. Find the printer cable attached to the back of the printer.

Back View (IBM 5222)

Printer Cable

Back View (IBM 5217)

Printer Cable
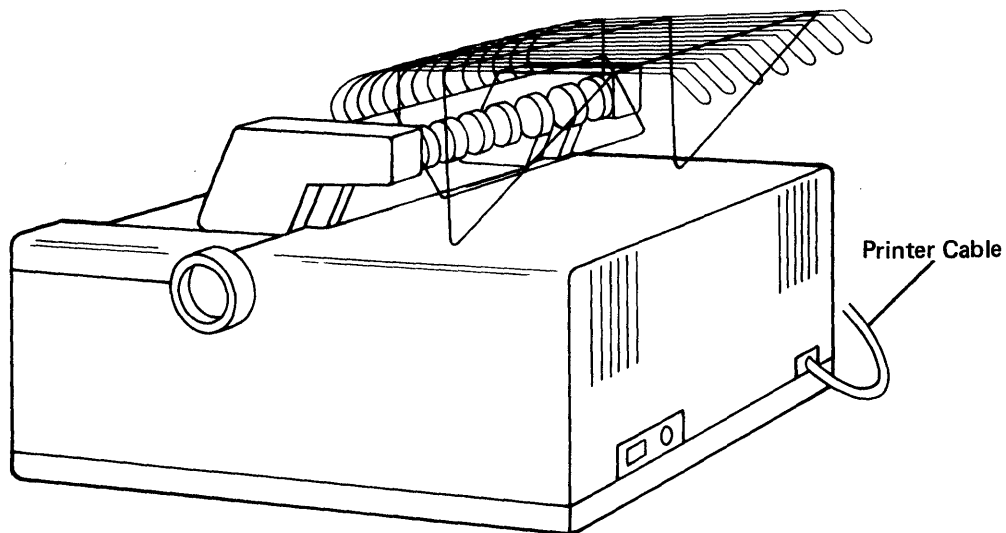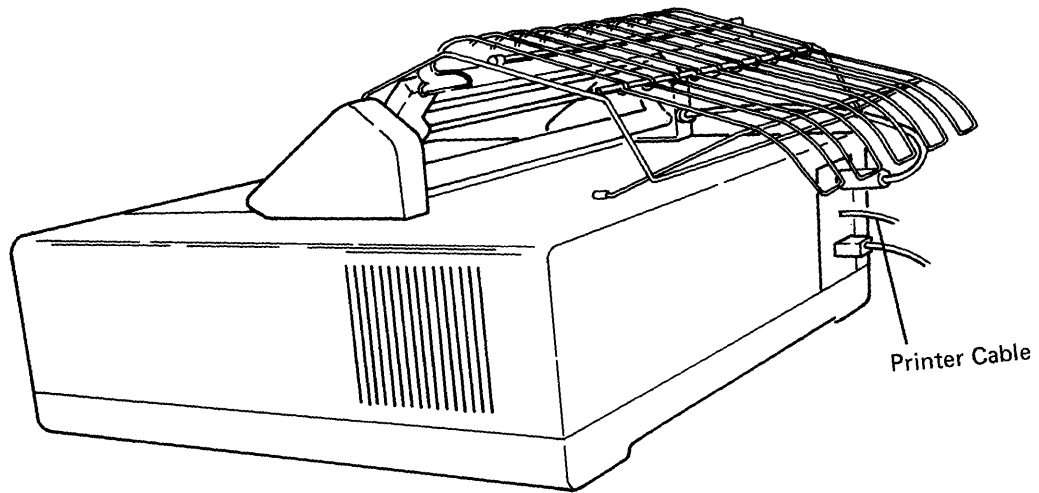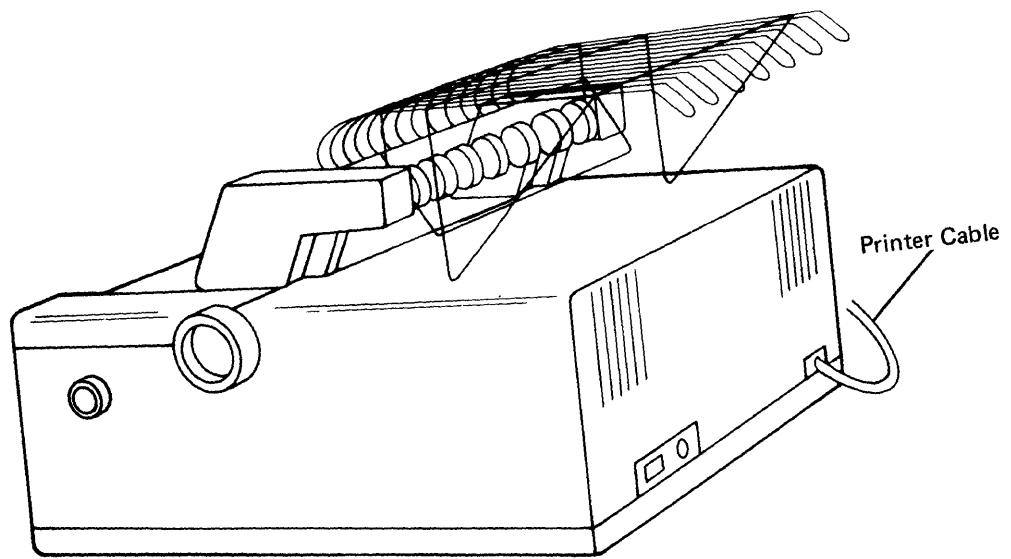
Back View (IBM 5242)

c. Line up the corresponding cable key slots with the key slots of the device socket.

Printer Cable
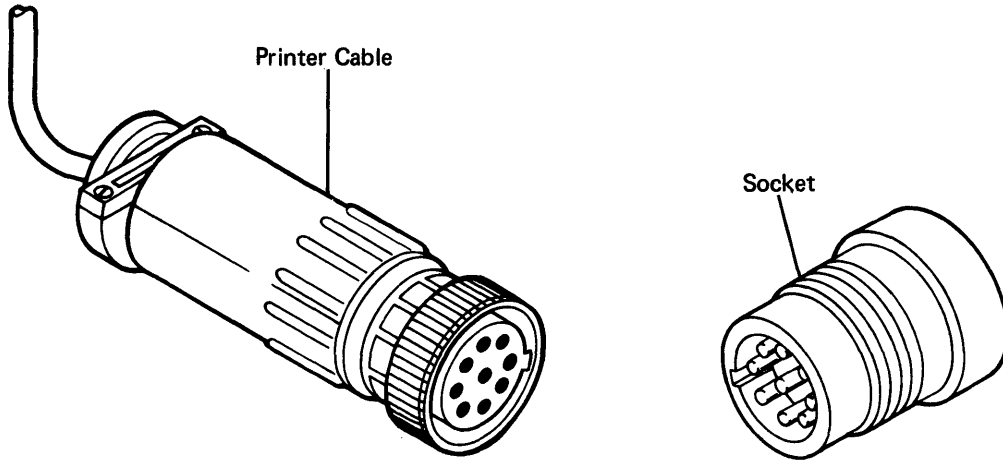
Socket

d. Insert the connector into the socket approximately 6.35 mm (1/4 inch) and turn the retaining ring clockwise until the ring is tight.

Socket

Retaining Ring
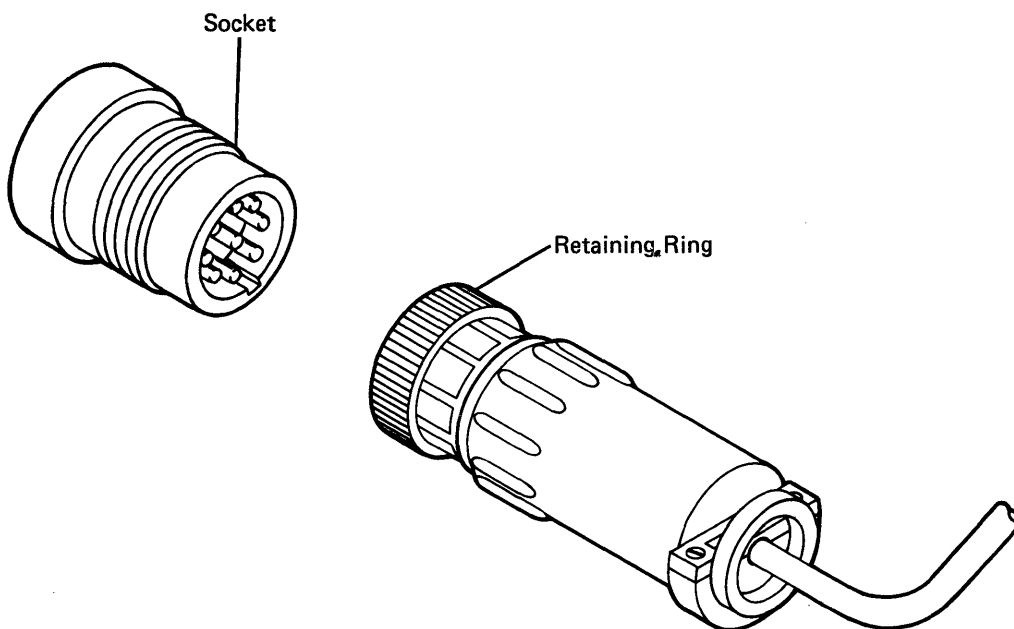
e. Go to step 13.

12.1 To connect the printer cable for an IBM 5256 printer, an IBM 5224 printer, or an IBM 5225 printer, do the following:

a. Locate the printer socket (Number 20).
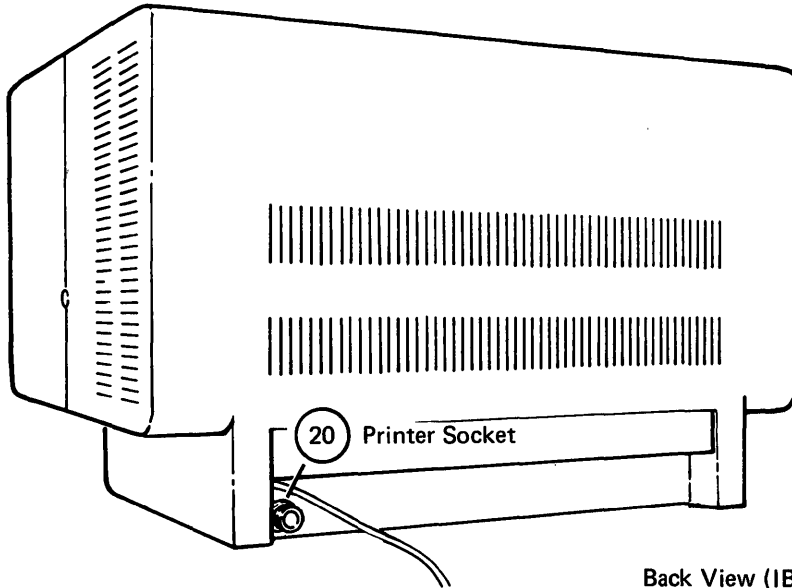
Back View (IBM 5285)

b. Find the printer cable.

c. Line up the widest slot in the cable connector with the key in the device socket.
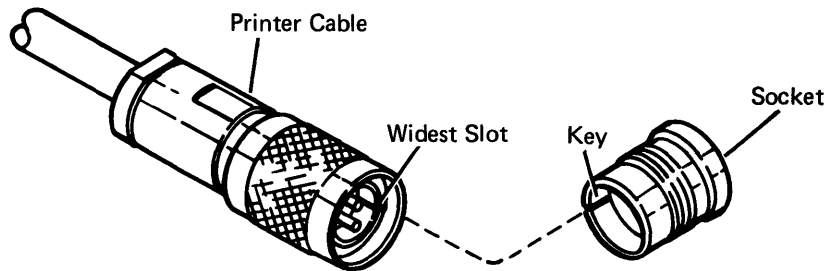
d. Insert the connector into the socket and turn the retaining ring clockwise until the ring is tight.

Socket 1

Retaining Ring
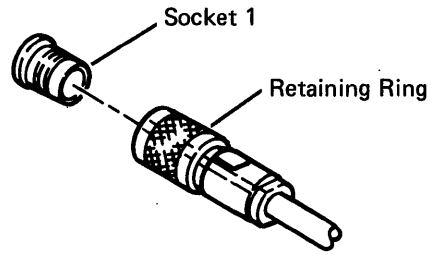
e. Go to the printer and look at the access panel (on the back of the printer).

Access Panel
(IBM 5256)

Access Panel
(IBM 5225)

Access Panel
(IBM 5224)
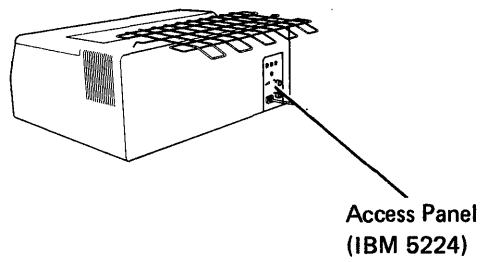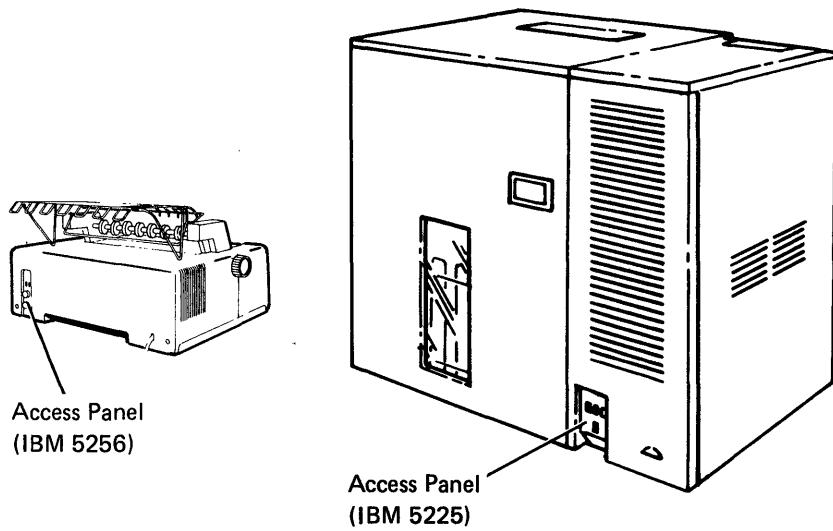
f. Connect the printer cable from the IBM 5285 to the printer socket.

From
IBM 5285

OR

OR

IBM 5256   IBM 5224   IBM 5225

Printer Socket
(input)
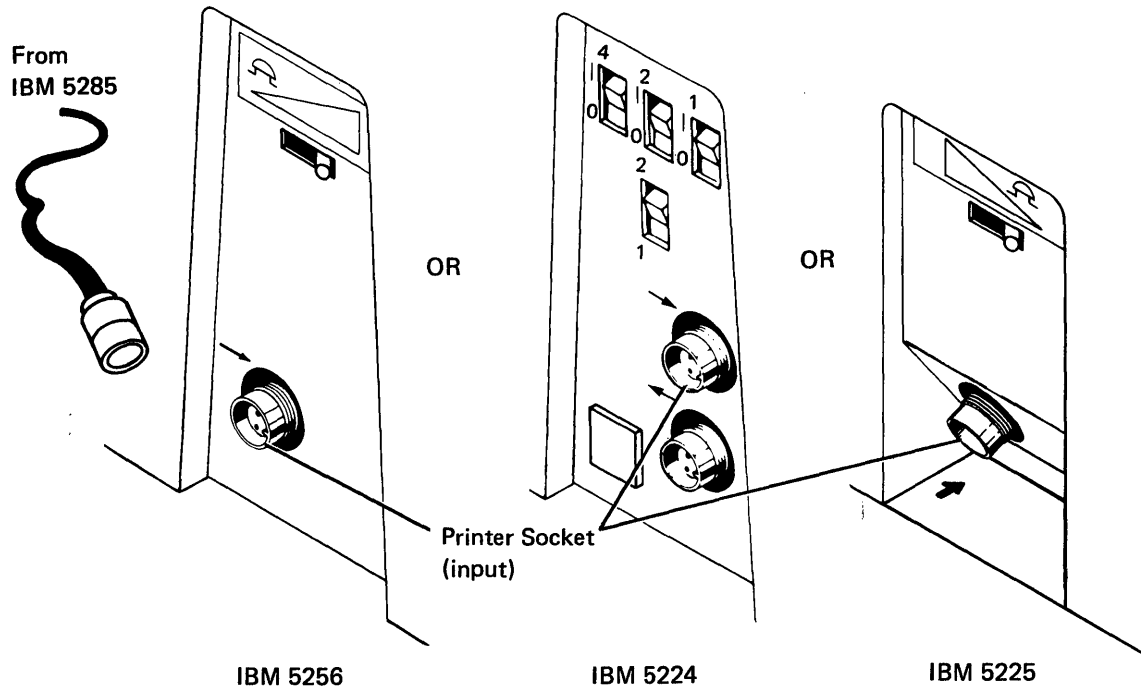
Note: If the printer access panel has the Terminator and Address switches, connect the cable and set the switches as shown in the following example:

From IBM 5285

OR

OR

Set the Address switches to 000.

Set the Terminator Switch to 1.

Connect cable here

Set the Address switches to 000.

Set the Terminator switch to 1.

Connect cable here

IBM 5256   IBM 5224   IBM 5225
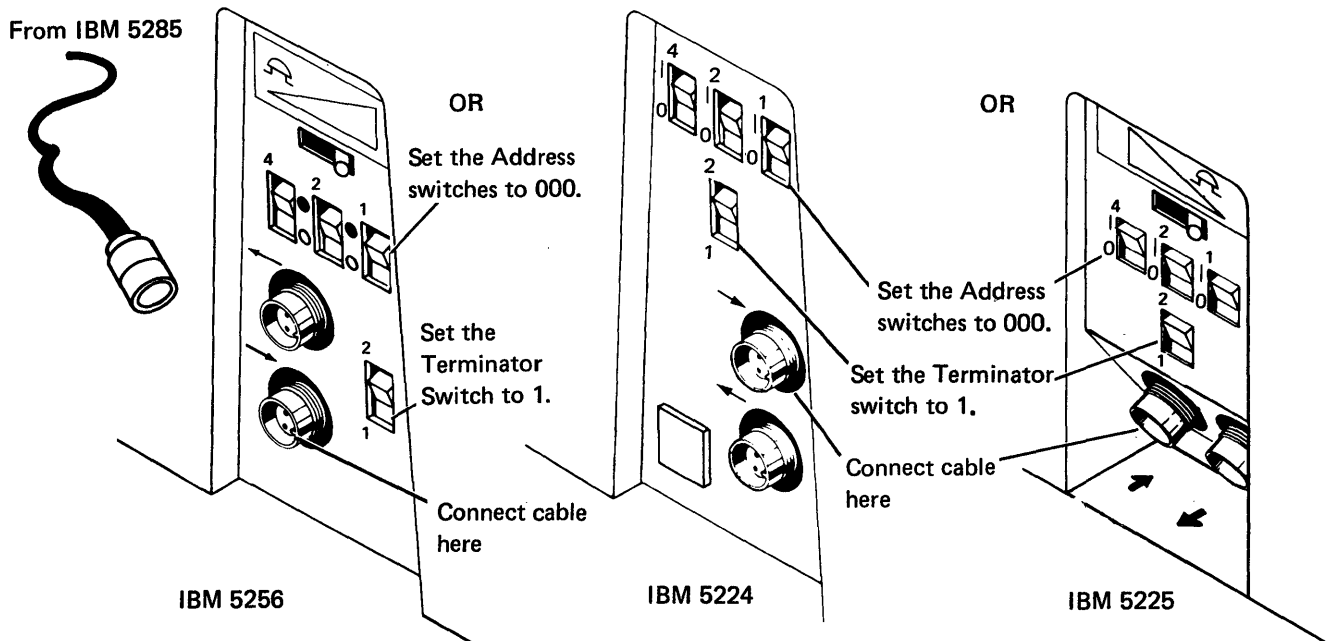
13. **If you have communications, go to step 14. If you do not have communications, go to step 15.**

IBM 5285 Setup

14. Connect the communications cable as follows.

a. Look at the communications socket (Number [14]).

Communications Socket
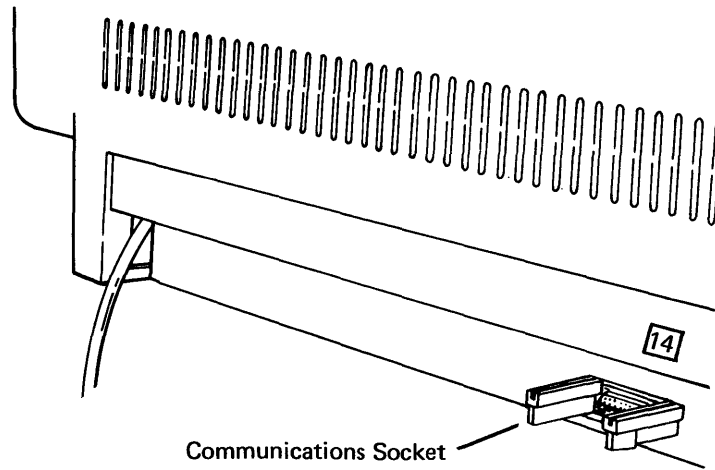
b. Locate the communications cable.

c. Push the cable into the socket.

Socket Guide
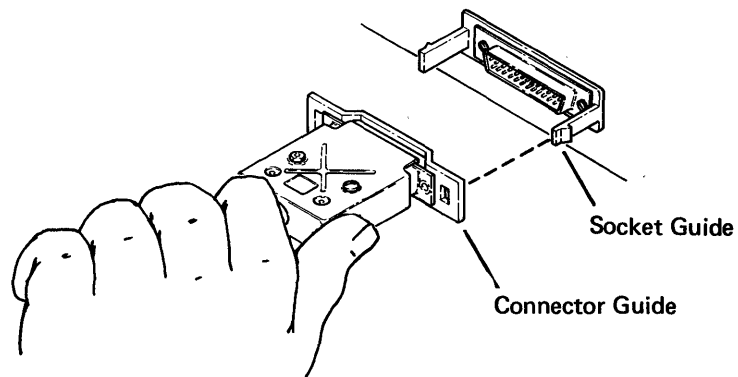
Connector Guide

Note: If the cable does not fit easily into the socket, make sure that the connector guides line up with the socket guides.
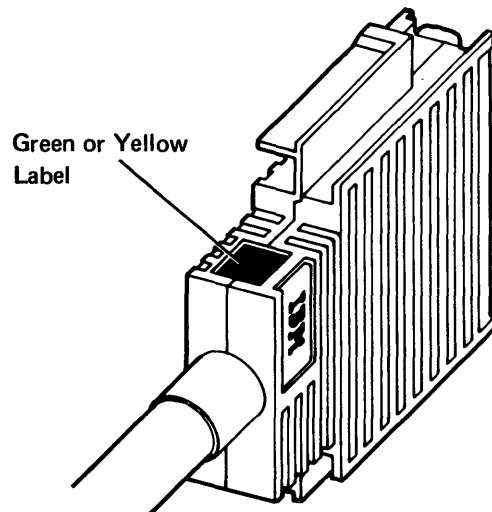
d. Make sure that the snap-locks lock into position. The other end of the communications cable will be connected later, in Section 9.

15. Cut the string from the power cord plug and insert the plug into a grounded outlet.
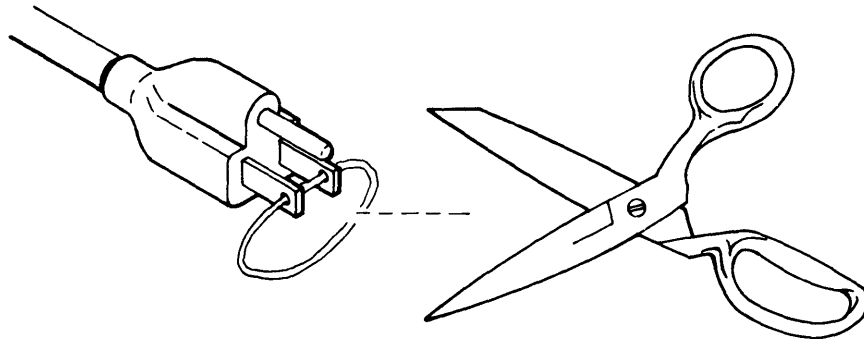
16. One or more maintenance information manuals are shipped with each machine. Please be sure to keep these manuals handy. The service personnel will need these manuals to maintain your equipment.

Label the IBM binder(s) that came with your device (if they have not been labeled) by doing the following:

a. **Open an IBM binder and cut out the identification tab printed on the back cover of each manual.**
b. **Fold the identification tabs (except for the first tab) in the following manner:**

Note: Depending on the binder, you may only have two tabs to insert.
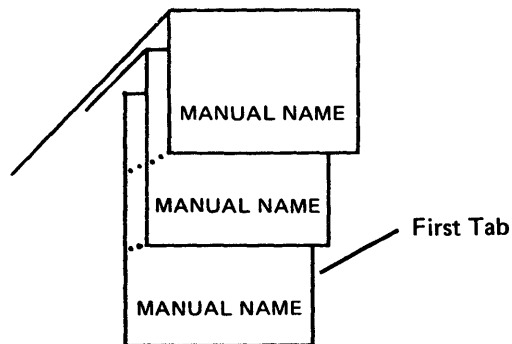
c. Insert the tabs into the plastic cover found on the binder, as shown below:
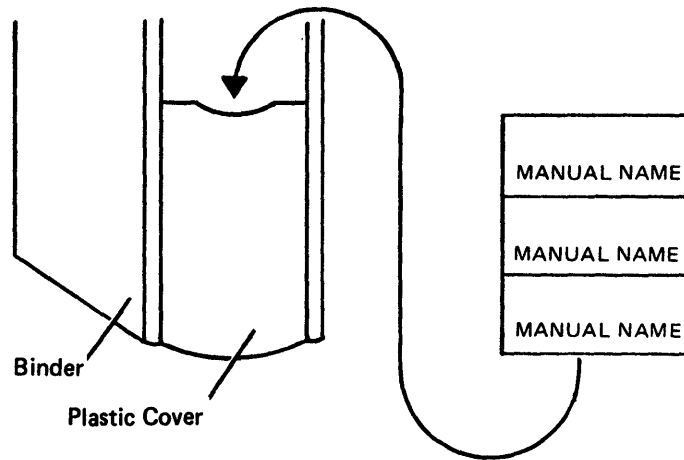
Go to Section 7, *Labeling Your System.* After you complete the labeling procedures, you will be sent to Section 8, *Verification Procedure.*

Caution: This device weighs approximately 90 kilograms (200 pounds). NEVER ATTEMPT TO LIFT IT BY YOURSELF.

Machine Number

IBM

5288
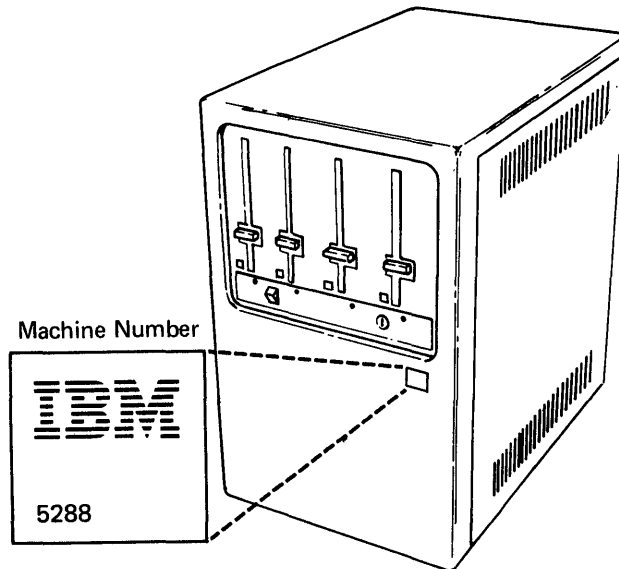
1. Do the following:

a. Make sure the diskette locking levers are open.

Diskette Locking Lever
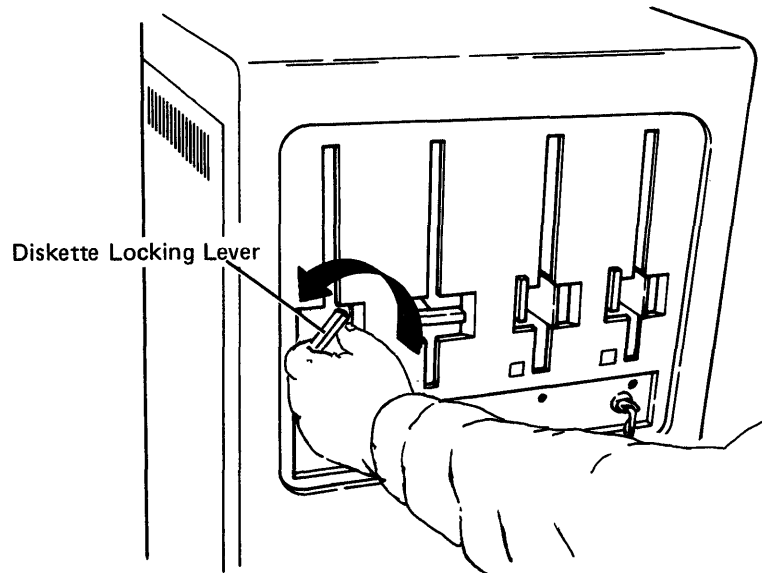
b. Make sure that the Power switch is set to the O (Off) position.
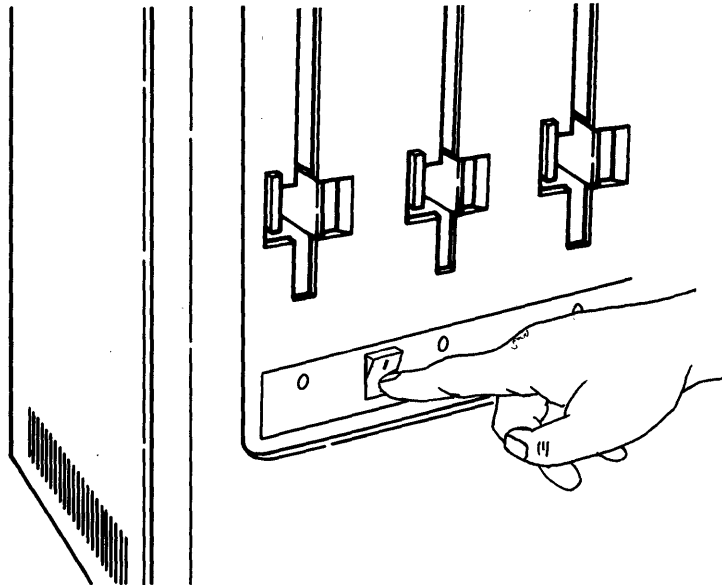
2. If your device has the Keylock feature, read and do the
    following. If not, go to step 4.
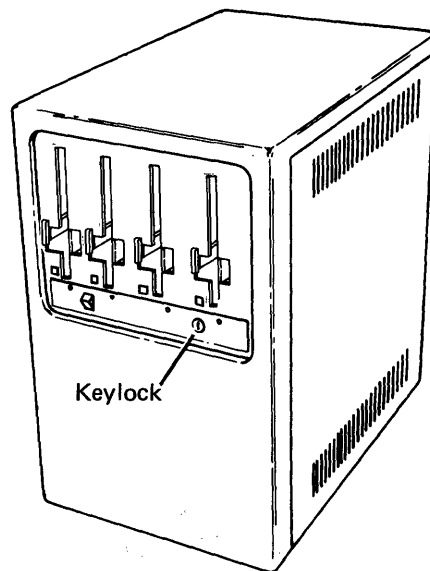
Keylock

a. The keys for the Keylock feature are packaged in the customer setup envelope. The envelope looks like this:
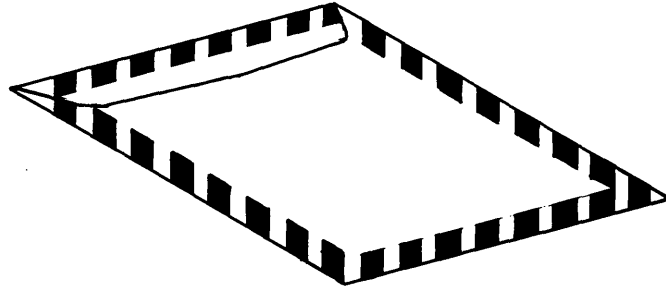
b. Record the identification number of the keys.

3. **Insert a key and turn it to the right. If it does not turn to the right, use the other key.**

Locked
Position
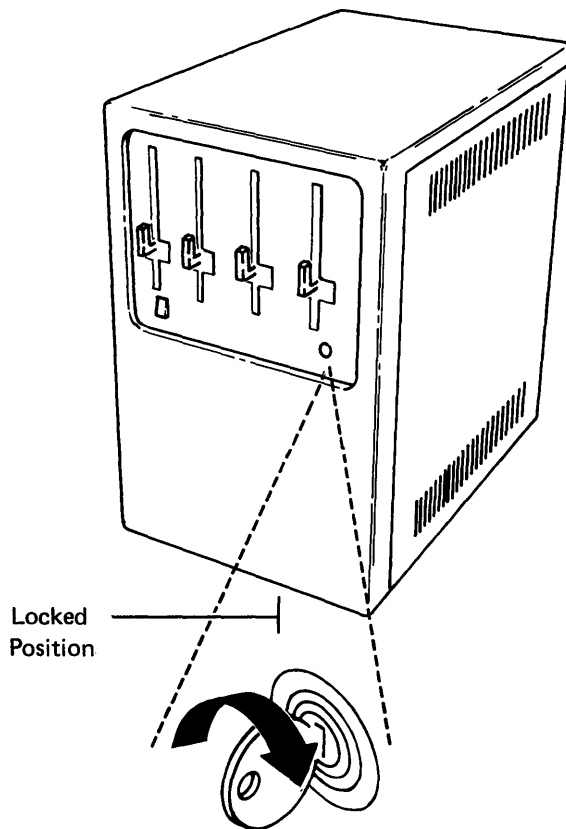
4. The auxiliary data station and diskette drive cables attach to the IBM 5288. The IBM 5288 data station sockets are color coded green and numbered. The IBM 5288 diskette drive sockets are color coded yellow and numbered.

Data Station Socket(s)

Printer Sockets

					⑳		㉑		㉒		㉓		㉔	
				4800 4C00	4800	4C00	5000 5400	5000	5400	5800 5C00	5800	5C00		
0/1 0	1/2 1	2/3 2	3	5	6	7	8	9	10	11	12	13	14	

Data Station Sockets (green)   Diskette Drive Sockets (yellow)   Communication Socket
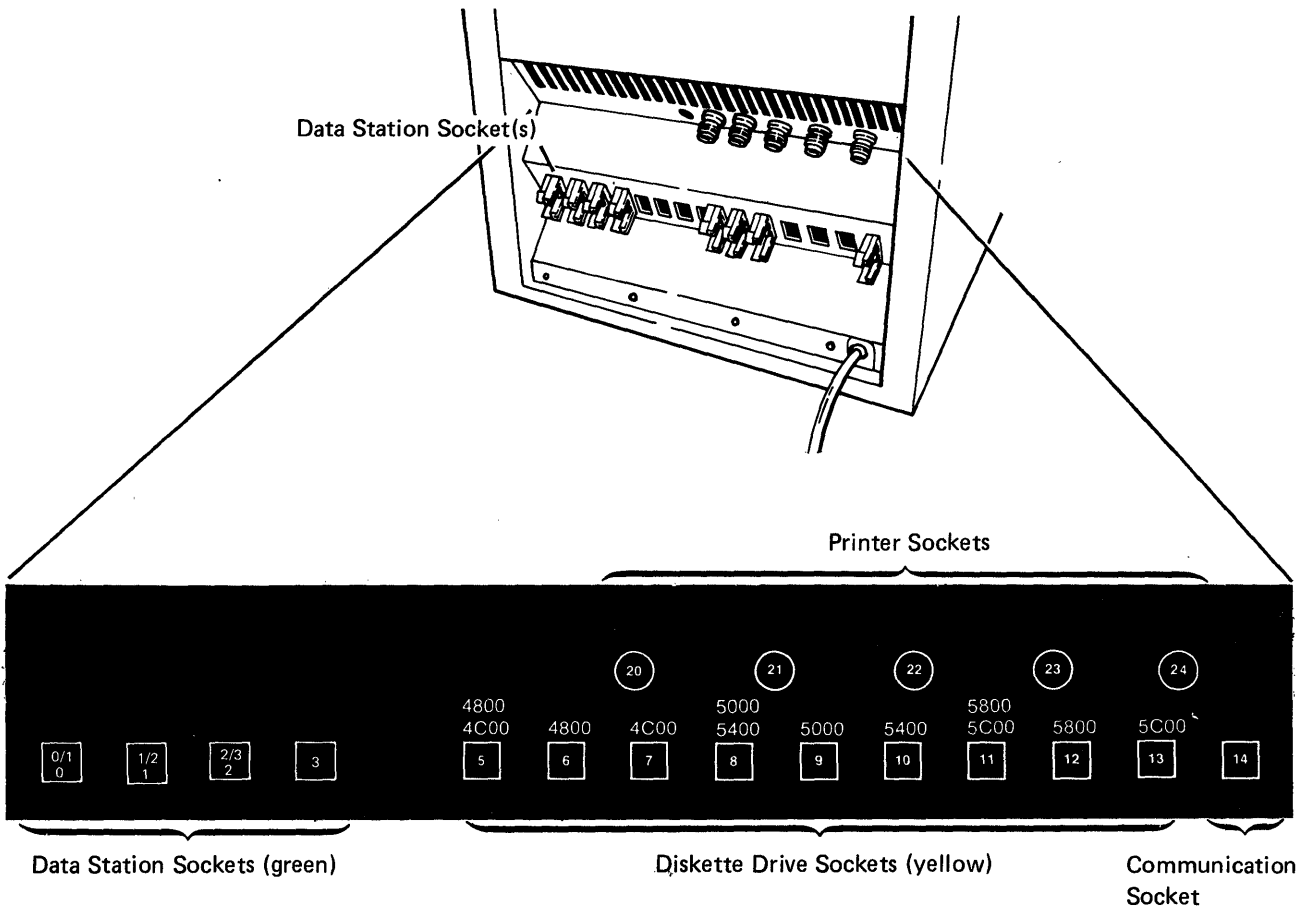
In this procedure you will be connecting several cables. The cables are:

- Up to four data station cables (color coded green)

- Up to four diskette drive cables (color coded yellow)

- Up to five printer cables (optional)

- One communication cable (optional)

Note: Under normal conditions, the cables do not carry high voltage and there is no danger of electrical shock. However, to ensure safety, the power cord plug should always be removed from the receptacle when you connect or disconnect the cables.

a. **Each IBM 5288 data station socket has a green label.**

   - A single digit on the label means it is a connection for a data station device with one keyboard, such as the IBM 5281.
   - Two digits on the label means it is a connection for a data station device with two keyboards, such as the IBM 5282.

b. **Each IBM 5288 diskette drive socket has a yellow label. Above each label is a single four-digit hexadecimal address, or two four-digit hexadecimal addresses.**

   - A data station with one diskette drive is connected to a socket labeled with a single address.

   - A data station with two diskette drives is connected to a socket labeled with two hexadecimal addresses.

   - If a socket with two addresses is used, neither of the two adjacent single address sockets with the same addresses may be used.

Printer Sockets

Communication Socket

IBM 5288 Setup

IBM 5281 or IBM 5282
IBM 5281 or IBM 5282
IBM 5281 or IBM 5282
IBM 5281

Data Station Sockets (green)

If socket 12 or 13 is used, socket 11 cannot be used.

If socket 11 is used, neither socket 12 or 13 can be used.

If socket 9 or 10 is used, socket 8 cannot be used.

If socket 8 is used, neither socket 9 or 10 can be used.

If socket 6 or 7 is used, socket 5 cannot be used.

If socket 5 is used, neither socket 6 or 7 can be used.

Diskette Drive Sockets (yellow)

5.   The auxiliary data station cables attach to the IBM 5288. The IBM
     5288 data station sockets are color coded green and numbered 0
     through 3. Read the following three steps (a, b, and c) before con-
     necting the data station cable.

   a. Find a cable connector with a green label. Read the identification
      label.

   For example, if you find a cable with the following label, this cable
   connects to socket 0 on the IBM 5288.
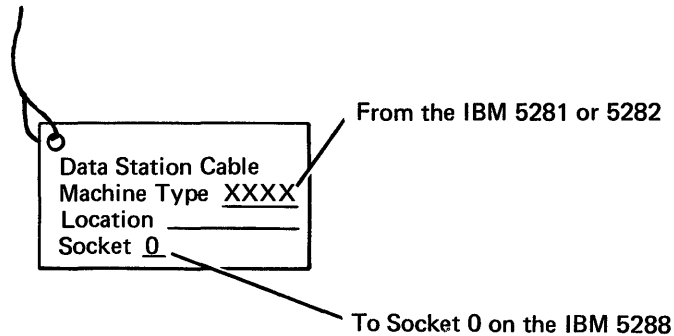
   From the IBM 5281 or 5282

   Data Station Cable
   Machine Type XXXX
   Location _____
   Socket 0

   To Socket 0 on the IBM 5288

   b. Position the cable so that the green label is on top; then push
      the cable into the socket.

   Socket

   Green Label

   Cable

   IBM Logo
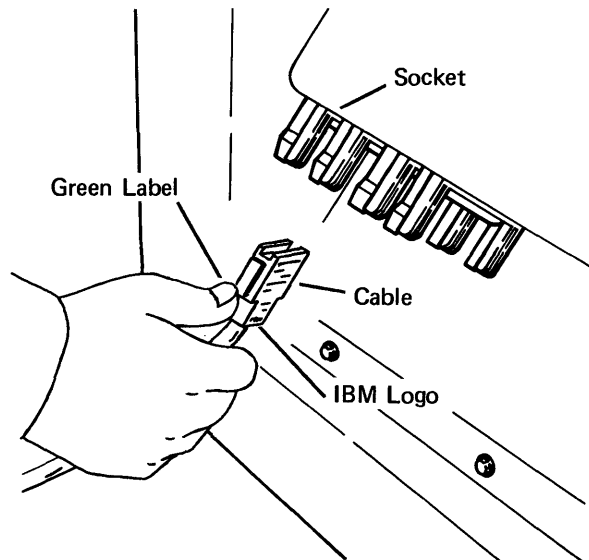
   Note: If the cable end does not fit easily into the socket, be sure that
   the connector guides line up with the socket guides.

   c. Make sure that the snap-locks lock into position.

5.1 Repeat this procedure for the remaining data station cables. The remaining socket numbers may be combinations of 1, 1/2, 2, 2/3, or 3.

6. The auxiliary diskette drive cables attach to the IBM 5288. The IBM 5288 diskette drive sockets are color coded yellow and numbered 5 through 13.

Diskette Drive Sockets
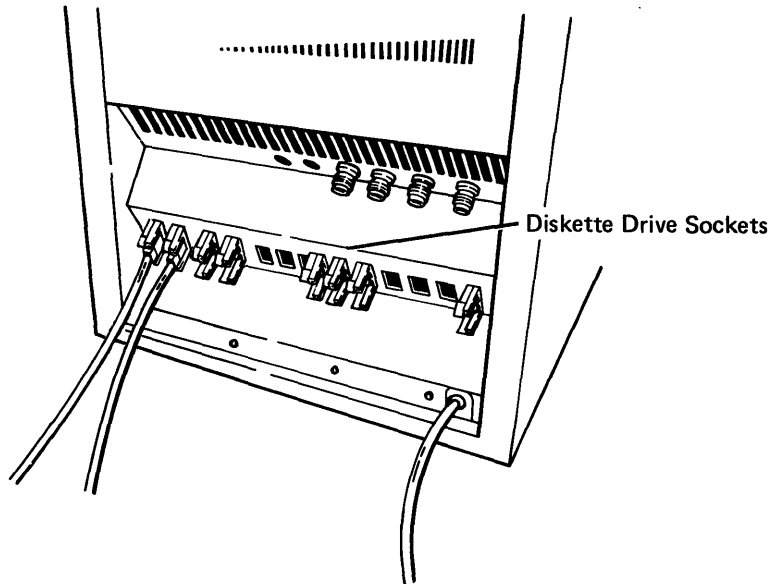
7. If you do not have a diskette drive cable(s) to attach to the IBM 5288, go to step 8. If you do, read and do the following three steps before connecting the cable.

a. Find a cable with a yellow label. Read the identification label. For example, if you find a cable with the following label, this cable connects to socket 8 on the IBM 5288.
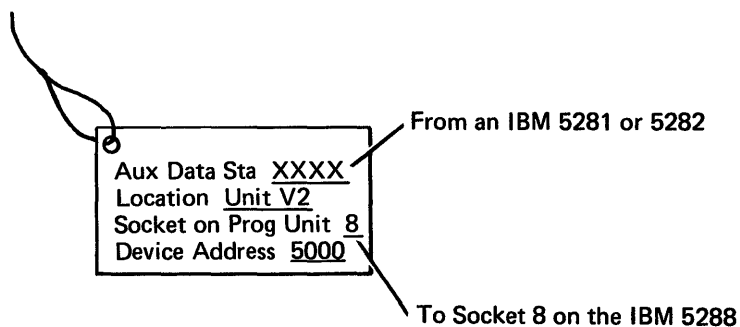
From an IBM 5281 or 5282

Aux Data Sta XXXX
Location Unit V2
Socket on Prog Unit 8
Device Address 5000

To Socket 8 on the IBM 5288

b. Position the cable so that the yellow label is on top; then push the cable end into the socket.

Yellow Label
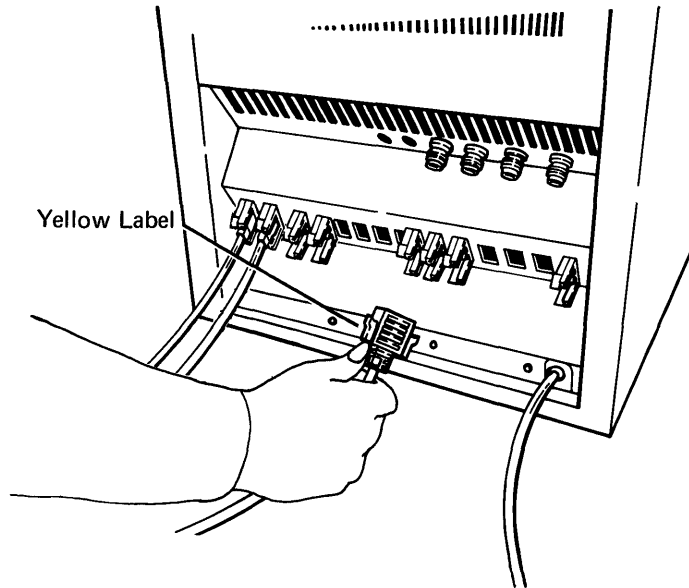
Note: If the cable end does not fit easily into the socket, be sure that the connector guides line up with the socket guides.

c. Make sure that the snap-locks lock into position.

7.1 Repeat this procedure for the remaining diskette drive cables.

Note: Not all sockets (both data station and diskette drives) will be used.

8. If you have a printer(s), continue with this step. If not, go to step 20.

    a. If you have one or more IBM 5217, IBM 5222, and/or IBM 5242 printer(s) to attach, go to step 8.1.
    b. Otherwise, go to step 8.3 to attach the IBM 5256, IBM 5224, and/or IBM 5225 printer(s).

8.1 Connect the IBM 5217, IBM 5222, or IBM 5242 printer as follows:

    a. Your IBM 5288 has one printer socket (number 21) or five printer sockets (numbers 20, 21, 22, 23, and 24).
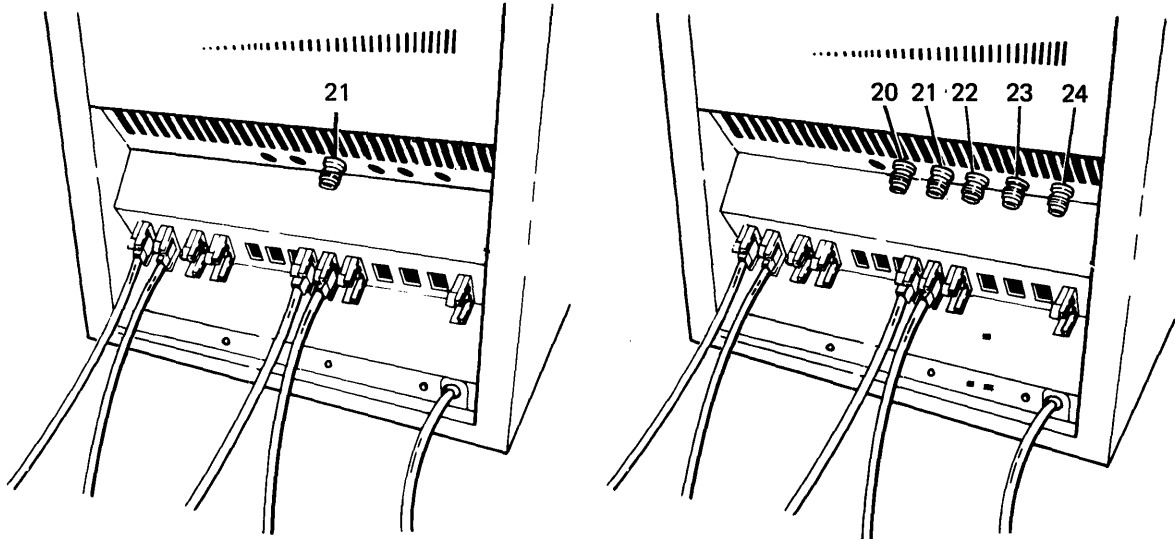
Back View (IBM 5288)

You will connect the IBM 5217, IBM 5222, or IBM 5242 printer cables to socket numbers 21, 22, 23, or 24. Socket number 20 is only used to connect an IBM 5256, IBM 5224, or IBM 5225 printer.

b. Find the printer cable attached to the back of the IBM 5217, IBM 5222, or IBM 5242 printer. Read the label to determine which socket to connect the cable to.

Printer Cable

Back View (IBM 5217)
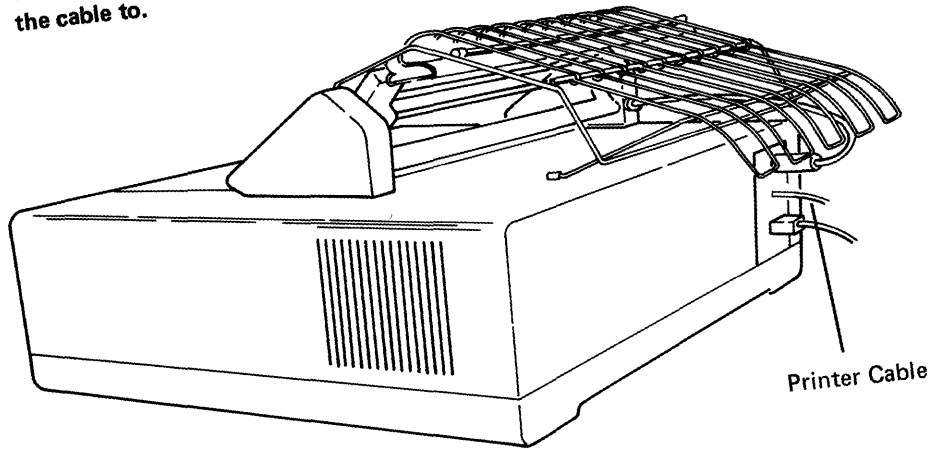
Printer Cable
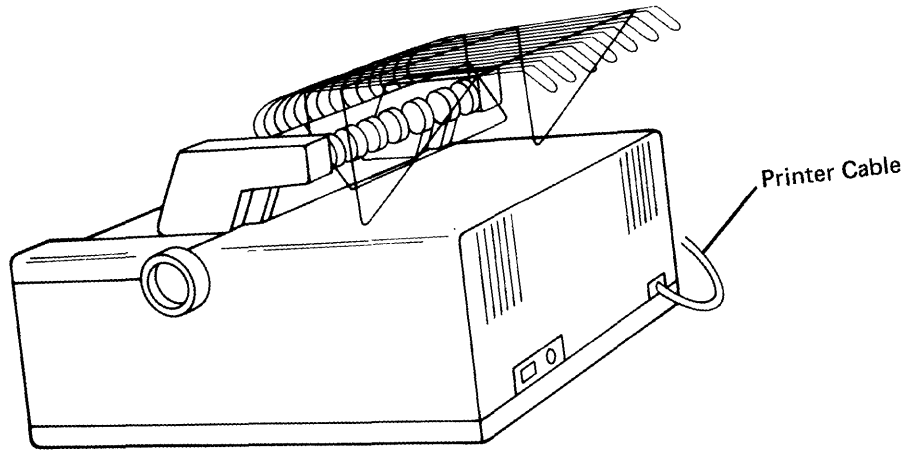
Back View (IBM 5222)
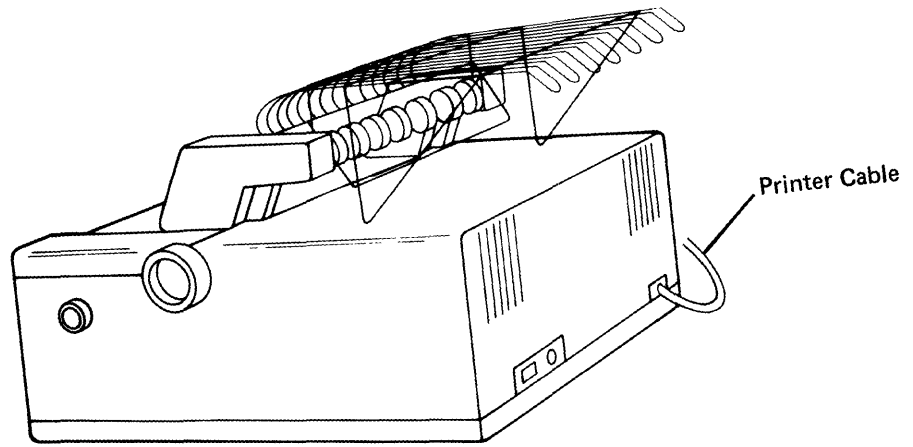
Printer Cable

Back View (IBM 5242)

c. Line up the printer cable connector key with the corresponding key slot of the IBM 5288 socket.
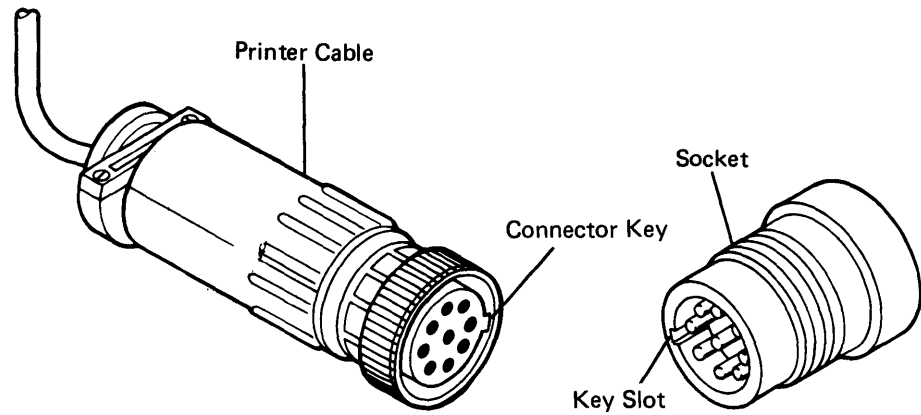
Printer Cable

Socket

Connector Key

Key Slot

d. Insert the connector into the socket and turn the retaining ring clockwise until the ring is tight.

Socket

Retaining Ring
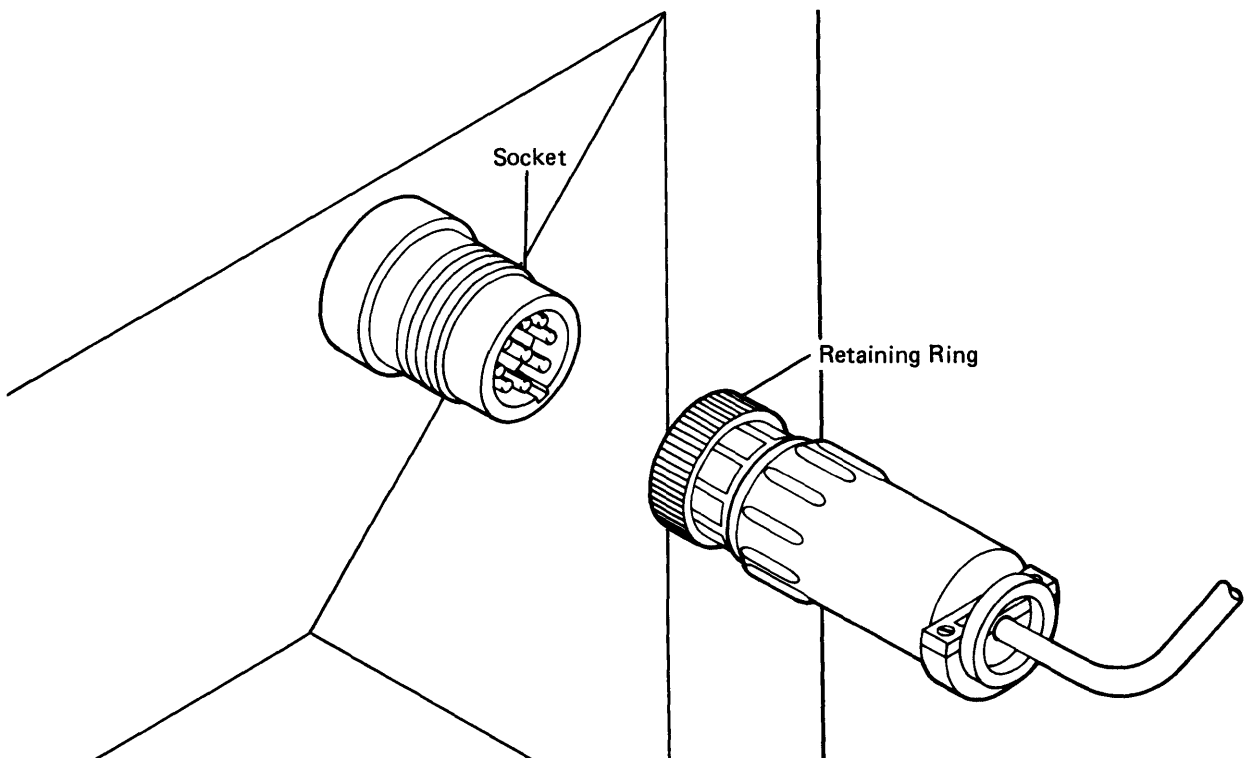
8.2. If you have more than one IBM 5217, IBM 5222, or IBM 5242 printer to attach, repeat step 8.1. Then:

a. If you have an IBM 5256, IBM 5224, or IBM 5225 printer to attach, go to step 8.3.
b. Otherwise, go to step 20.

8.3. Connect the IBM 5256, IBM 5224, and /or IBM 5225 printer(s) as follows:

a. Your IBM 5288 has one printer socket (number 20), four printer sockets (numbers 20, 21, 22, and 23), or five printer sockets (numbers 20, 21, 22, 23, and 24).
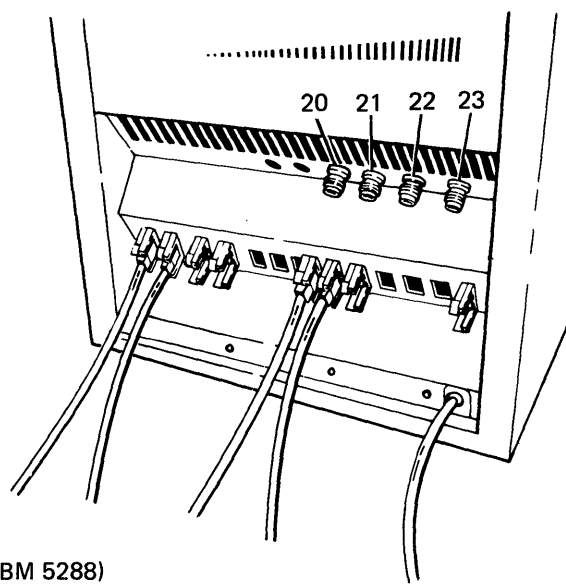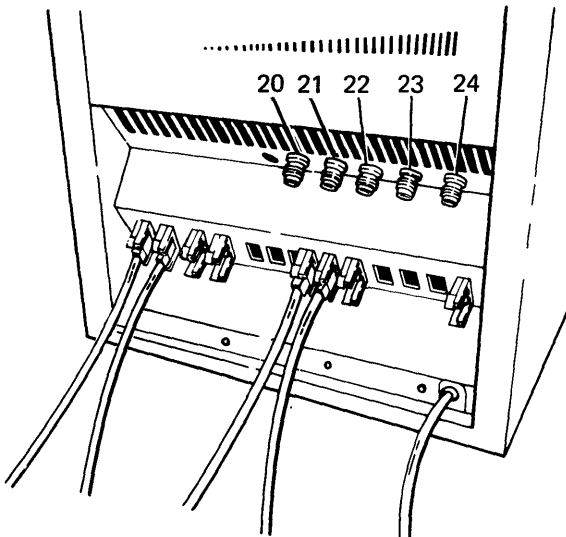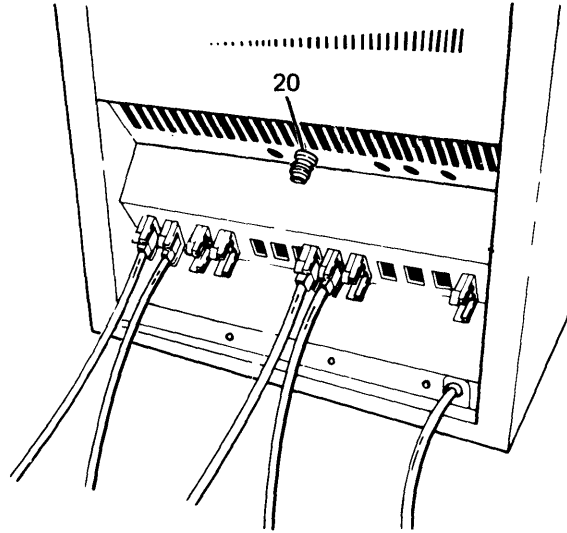
Back View (IBM 5288)

If your IBM 5288 has one or five printer sockets, you will connect the cable from your printer to socket 20. If your IBM 5288 has four printer sockets, one or more of them will be used to connect the printers.

b. Find the printer cable. Read the label to determine which socket to connect the cable to.

c. Line up the widest slot in the cable connector with the key in the IBM 5288 socket.
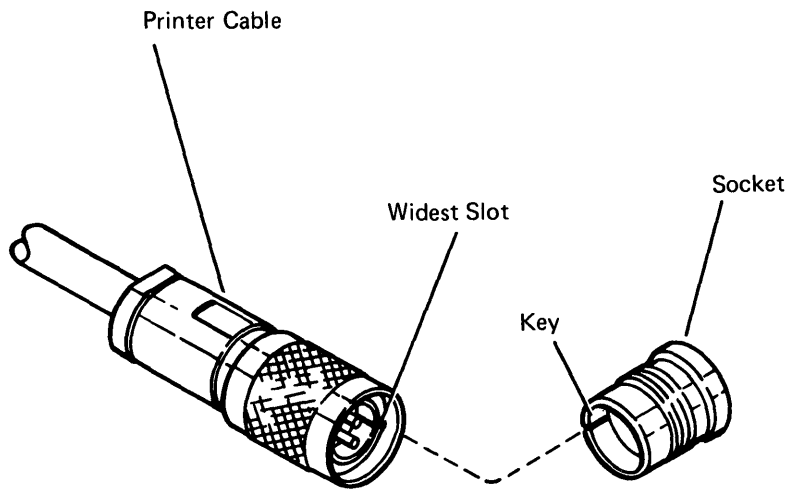
Printer Cable

Socket

Widest Slot

Key

d. Insert the connector into the socket and turn the retaining ring clockwise until the ring is tight.

Socket (20, 21, 22, or 23)

Retaining Ring
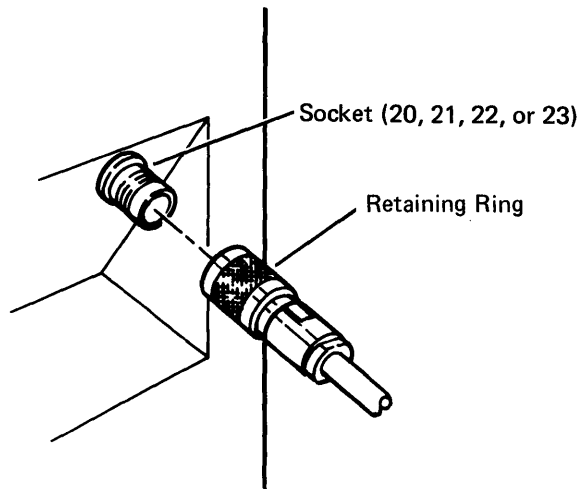
8.4. If you have more than one IBM 5256, 5224, or 5225 printer to attach directly to the IBM 5288, repeat step 8.3.

9. Go to the printer and find the access panel on the back of the printer.
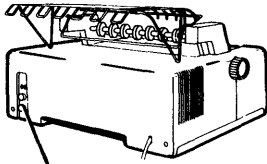
Access Panel
(IBM 5256)
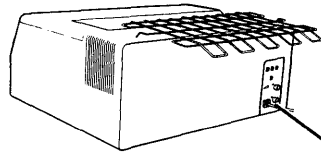
Access Panel
(IBM 5224)
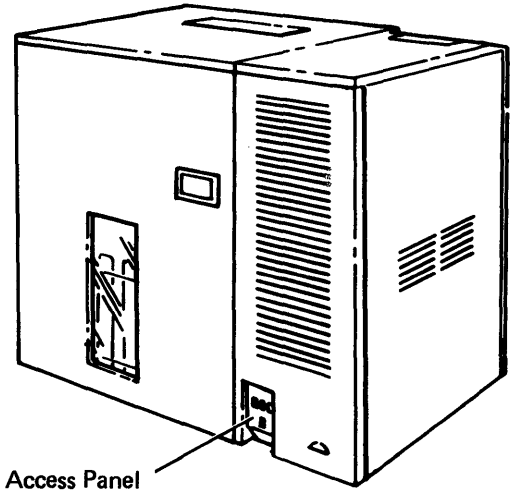
Access Panel
(IBM 5225)

10. Printers that have two sockets and several switches (as shown in the following illustrations) have the Cable Thru feature. The Cable Thru feature lets you connect two or more printers to one IBM 5288 socket.

IBM 5256   OR   IBM 5224   OR   IBM 5225
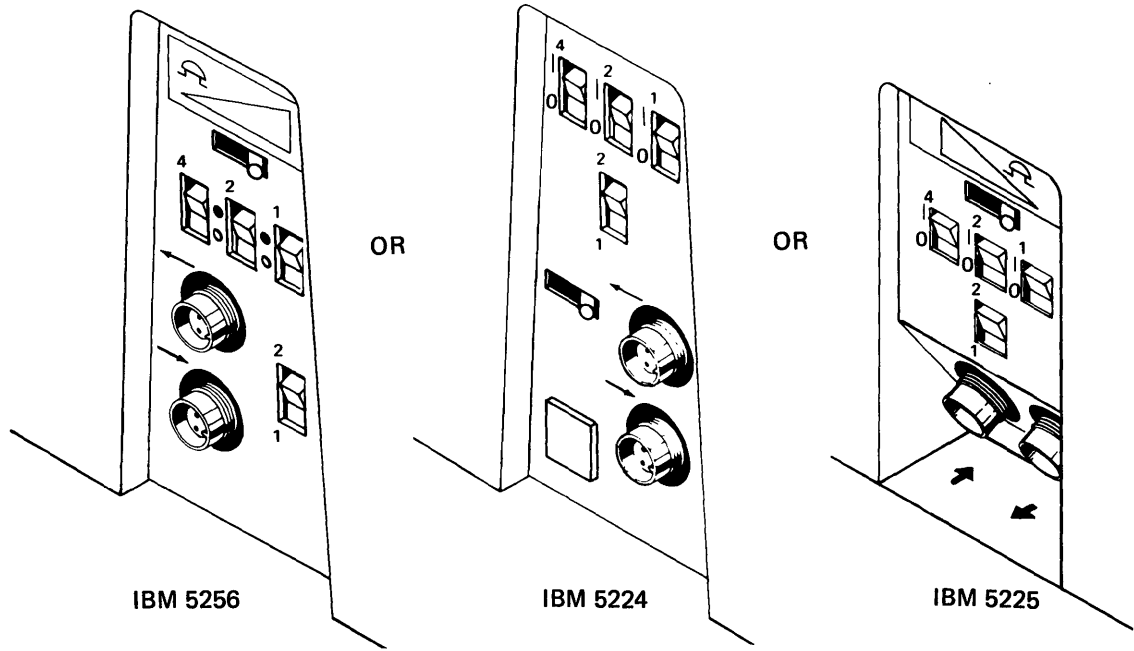
Note: The IBM 5224 always has the Cable Thru feature.

   a. If you are connecting only one printer to one IBM socket, go to step 11.
   b. If you are connecting two or more printers to one IBM 5288 socket, go to step 13.

11. Connect the printer cable from the IBM 5288 to the socket indicated in the following illustrations.

Connect the
cable here

IBM 5256

OR

Connect the
cable here

IBM 5256

OR

Connect the
cable here

IBM 5224

Connect the
cable here

IBM 5225

OR

Connect the
cable here

IBM 5225
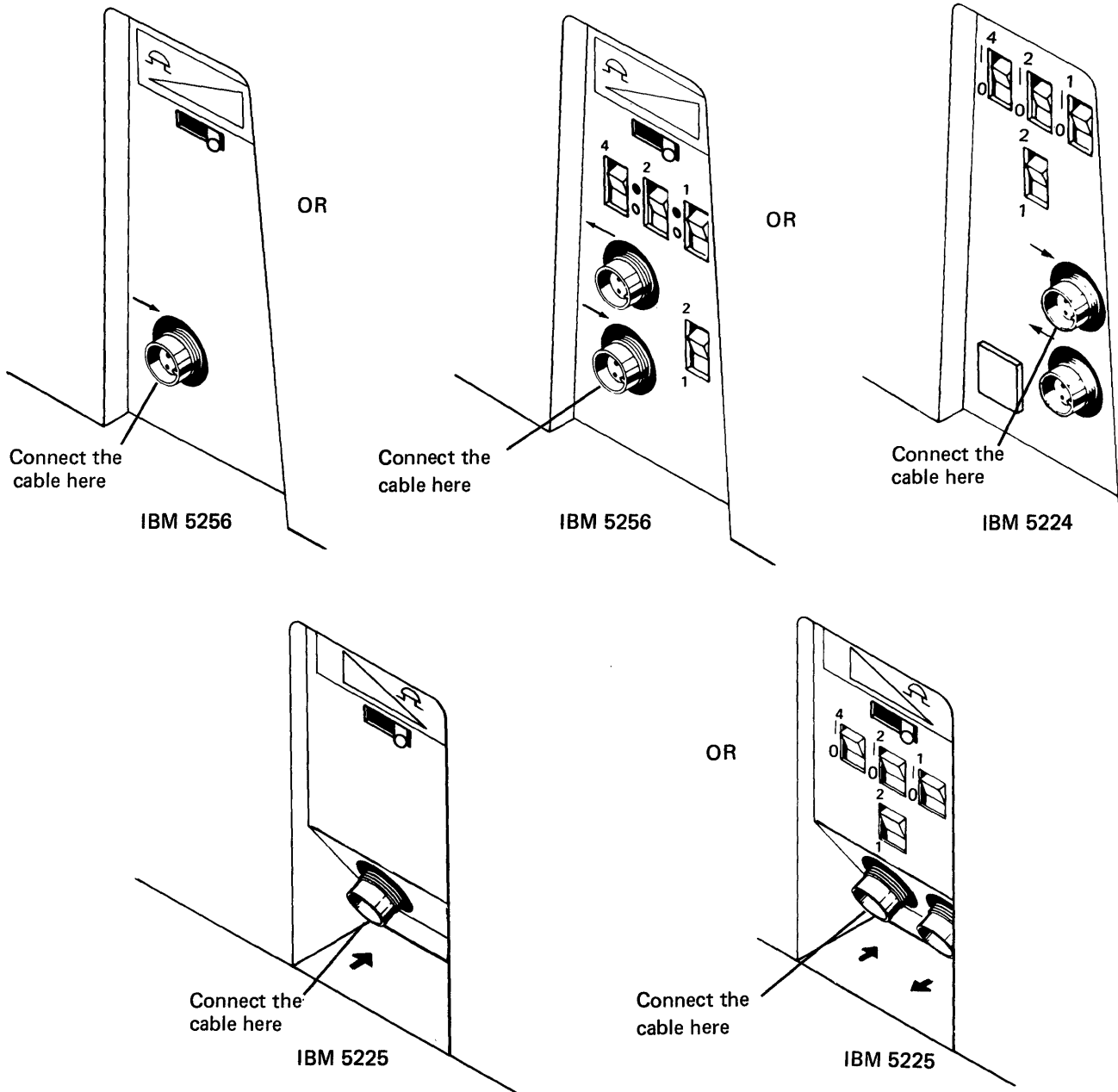
12. Do the following:

a. If there are more printer cables to attach, go back to step 9.
b. If you are connecting a printer that has the Cable Thru feature, go to step 17.
c. Otherwise, go to step 20.

13. Look at your floor plan or check with your supervisor to determine which printer connects to the IBM 5288 first, which connects second, and so on.

14. Connect the printer cable from the IBM 5288 to the input socket on your printer (lower socket for the IBM 5256, the upper socket for the IBM 5224, the left socket for the IBM 5225).
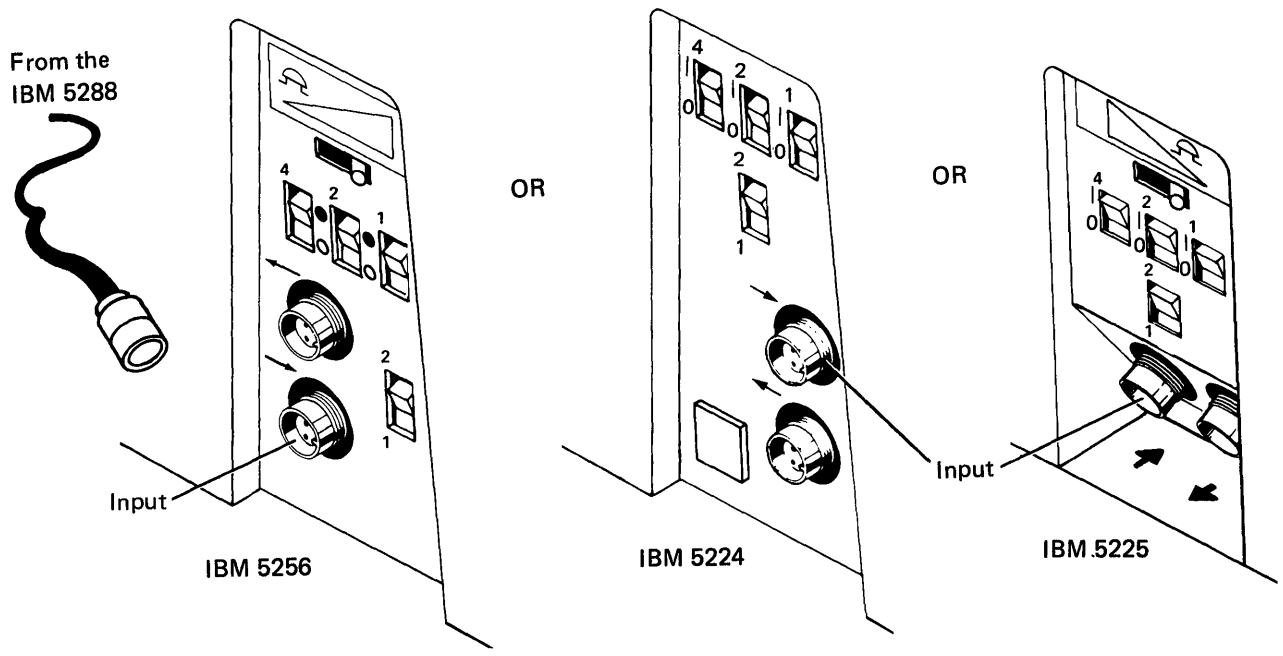
15. Connect the cable from the first printer (output socket) to the second printer (input socket).
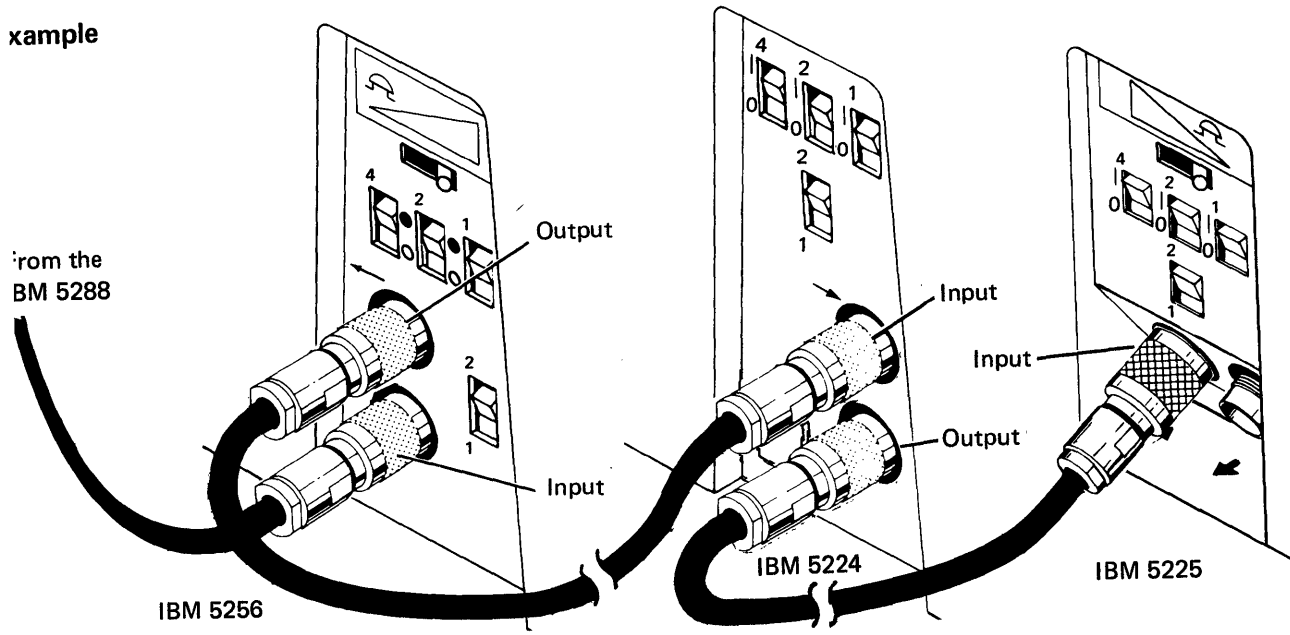
16. Continue connecting cables until all of the printers attached to one IBM 5288 socket are connected. If you have more printers to connect to another IBM 5288 socket, go to step 13.

17. **Set the printer switches only after you have connected the cables to all of the printers.**

There are two types of printer switches: address and terminator.

Address Switches

Terminator Switch

IBM 5256

Address Switches

Terminator Switch

IBM 5224

Address Switches

Terminator Switch

IBM 5225
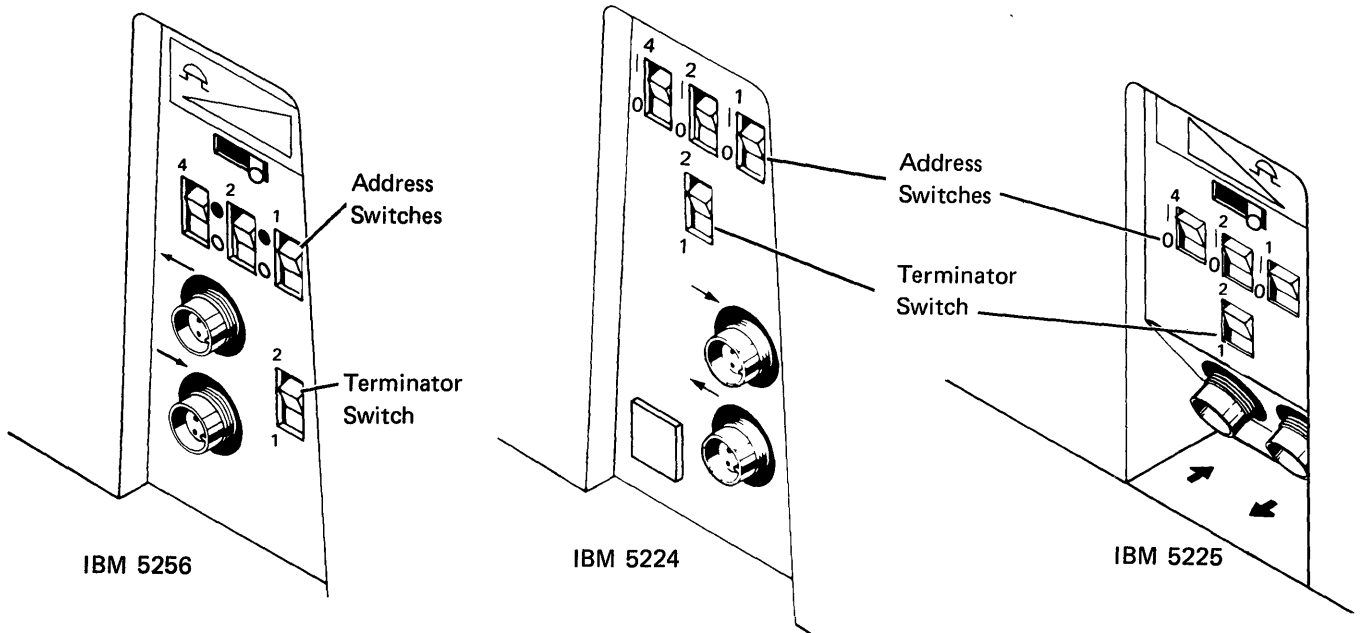
18. **Set the address switches.**

Before you can set the address switches, you must determine the printer address and the switch setting. The printer address is on the label attached to the printer cable. There are seven possible switch settings, as shown in the following chart. The switch setting and the printer address are determined by the IBM 5288 socket number and the placement of the printer in the cabling sequence (first, second, third, fourth, fifth, sixth, or last).

IBM 5288 Printer Socket Number	Printer Address						
	First Printer	Second Printer	Third Printer	Fourth Printer	Fifth Printer	Sixth Printer	Last Printer
20	8001	8002	8003	8004	8005	8006	8000
21	8009	800A	800B	800C	800D	800E	8008
22	8011	8012	8013	8014	8015	8016	8010
23	8019	801A	801B	801C	801D	801E	8018
Address Switches	1	2	3	4	5	6	0

The following examples show the printer addresses and switch settings on different Cable Thru configurations.

Note: The address switches on the last printer are always set to 0. An address switch setting of 0 is assumed if the printer does not have address switches.

IBM 5288
Printer Socket
Number

Last Printer	
Printer Address	8000
Address Switches	0

20 21 22 23
○ ○ ○ ○

← Always Set to 0

IBM 5288
Printer Socket
Number

20 21 22 23
○ ○ ○ ○

First Printer	
Printer Address	8001
Address Switches	1

Second Printer	
Printer Address	8002
Address Switches	2

Last Printer	
Printer Address	8000
Address Switches	0

← Always Set to 0

IBM 5288
Printer Socket
Number

20 21 22 23
○ ○ ○ ○

First Printer	
Printer Address	8011
Address Switches	1

Second Printer	
Printer Address	8012
Address Switches	2

Third Printer	
Printer Address	8013
Address Switches	3

Last Printer	
Printer Address	8010
	0

↑
No Address
Switches

19. Set the Terminator switch to 2 on all printers, except for the last printer; set that switch to 1 (see the following Cable Thru Example).

Note: The last printer might not have switches.

The following illustration shows an example of cabling and switch settings when the Cable Thru feature is used.

CABLE THRU EXAMPLE

IBM 5225 (First Printer)

IBM 5256 (Second Printer)

IBM 5224 (Last Printer)

From IBM 5288 (printer socket 20) (printer socket 21)

Address Switch Setting (1)

Terminal Switch Setting (2)

Input

Output

Address Switch Setting (2)

Address Switch Setting (0)

Output

Terminator Switch Setting (2)

Input

Terminator Switch Setting (1)

Input

Input

Address Switch Setting (0)

Terminator Switch Setting (1)

IBM 5256 (last printer connected to socket 20)

20. If you have communications, go to step 21. If not, go to step 22.

21. **Read the following four steps before connecting the communications cable.**

   a. **Look at the communications socket. This is where you will connect the communications cable.**

Communications
Socket (socket number [14])
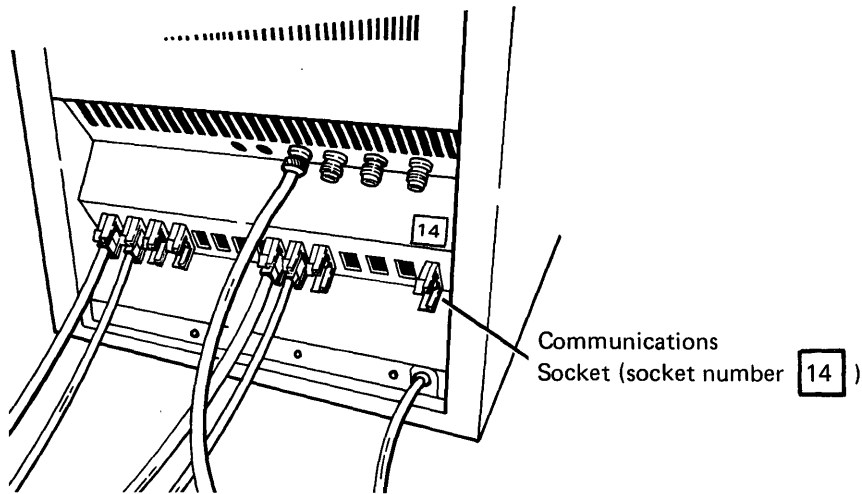
   b. **Find the communications cable.**

   c. **Position the cable; then push the cable into the socket.**
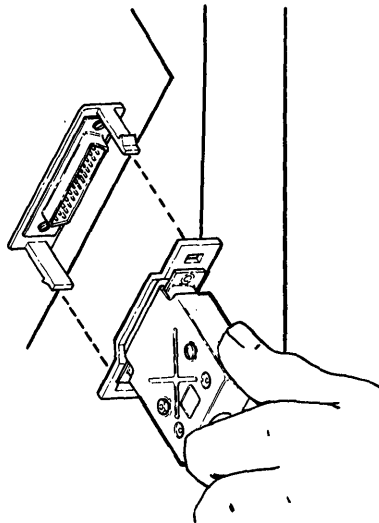
   Note: If the cable does not fit easily into the socket, be sure that the connector guides line up with the socket.

   d. **Make sure that the snap-locks lock into position. The other end of the communications cable will be connected later, in Section 9.**

22. **Cut the string from the power cord plug and insert the plug into a grounded receptacle.**

23. One or more maintenance information manuals are shipped with each machine. Please be sure to keep these manuals handy. The service personnel will need these manuals to maintain your equipment.

Label the IBM binder(s) that came with your device (if they have not been labeled) by doing the following:

a. **Open an IBM binder and cut out the identification tab printed on the back cover of each manual.**

b. **Fold the identification tabs (except for the first tab) in the following manner:**

Note: Depending on the binder, you may only have two tabs to insert.
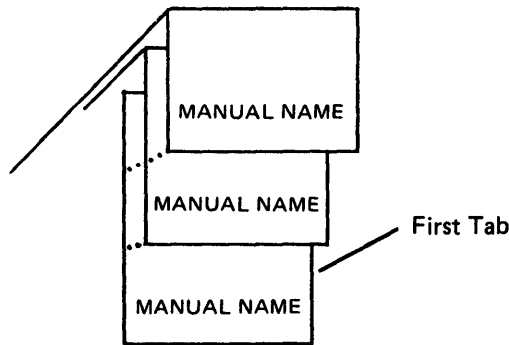
c. **Insert the tabs into the plastic cover found on the binder, as shown below:**
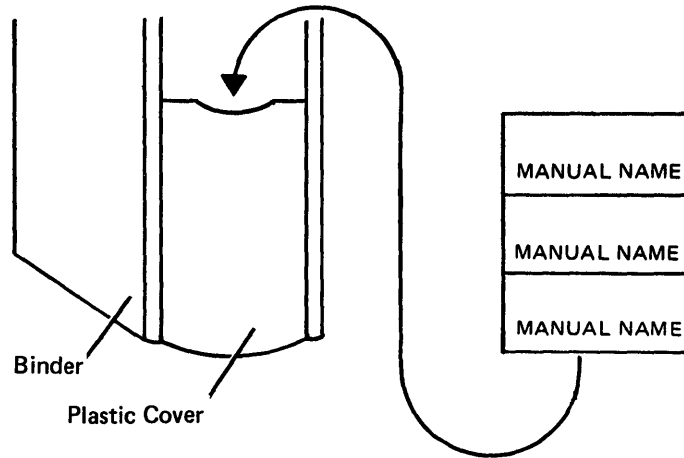
24. **Go to Section 7,** Labeling Your System, **and perform the labeling procedures for each device. After you have completed labeling your system, you will be sent to Section 8,** Verification Procedures.

Some labels are placed on the system devices during manufacturing. Other labels must be placed on the devices by you. The following procedures are for labeling the keyboard(s), diskette drive(s), and/or printer(s).

LABELING THE KEYBOARDS

Label the keyboard by doing the following:

1. **Look at your floor plan. The keyboard number(s) on the floor plan are written on or beside each data station.**

   These numbers can be 0, 1, 2, or 3.

2. **Find the appropriate number on the label sheet (the label sheet is in the customer setup envelope).**

3. **Remove the label and stick it within the recess of the label holder. (The label holder(s) is in the customer setup envelope.)**
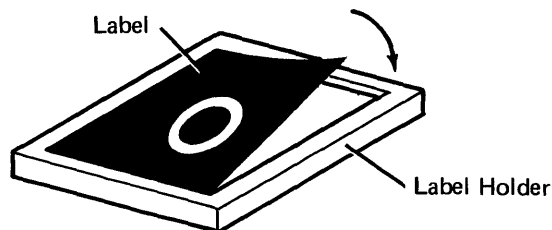
Label

Label Holder

4. **Remove the protective paper from the label holder; stick the label holder onto the keyboard, as shown:**

Label Holder

Label Holder

Adhesive

Protective Paper
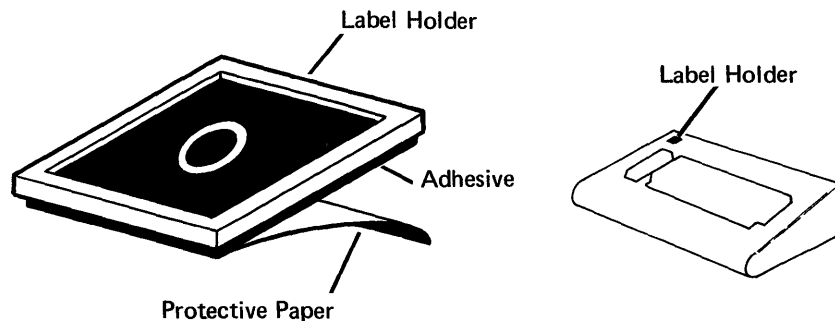
5. **Repeat steps 1, 2, 3, and 4 until all of the keyboards on every data station are numbered.**

LABELING THE DISKETTE DRIVES

Your controller (IBM 5285, 5286, or 5288) is prelabeled during manufacturing. The following procedure applies only to the IBM 5281 and/or 5282 with diskette drives.

If you do not have an IBM 5281 or 5282 to label, but you do have a printer, go to *Labeling the Printer* later in this section. If you do not have a printer, go to Section 8 and verify your system.

1.   Look at the diskette drive cable.

On the cable is a label with the diskette drive address. If you see one address, you have one diskette drive.

Example

Diskette Drive
Address

Device Address: <u>5000</u>
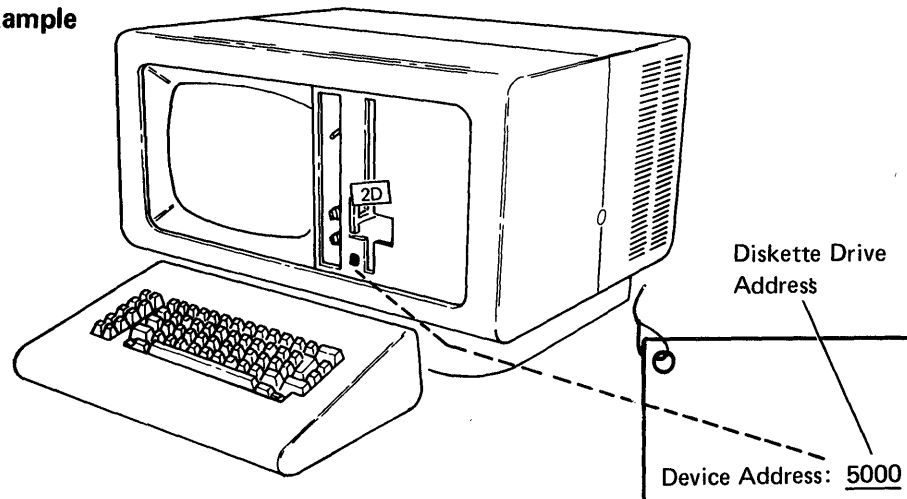
If you see two addresses, you have two diskette drives. For the IBM 5281, the first address represents the left diskette drive and the second address represents the right diskette drive.

Example

Right Diskette
Drive Address

Left Diskette
Drive Address

5000/5400
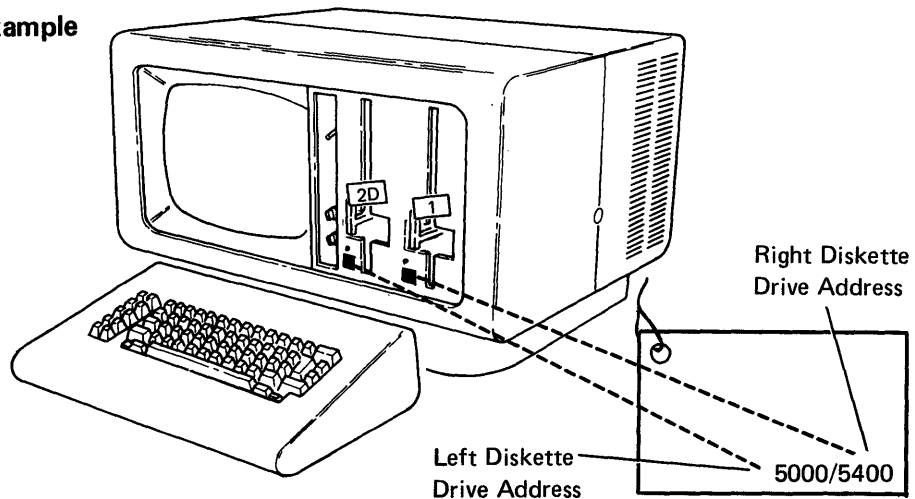
For the IBM 5282, the first address on the cable label represents the diskette drive located on the same side as the Power switch. The second address represents the diskette drive on the opposite side from the Power switch.

Example

First Address

5000/5400

Second Address

Power Switch
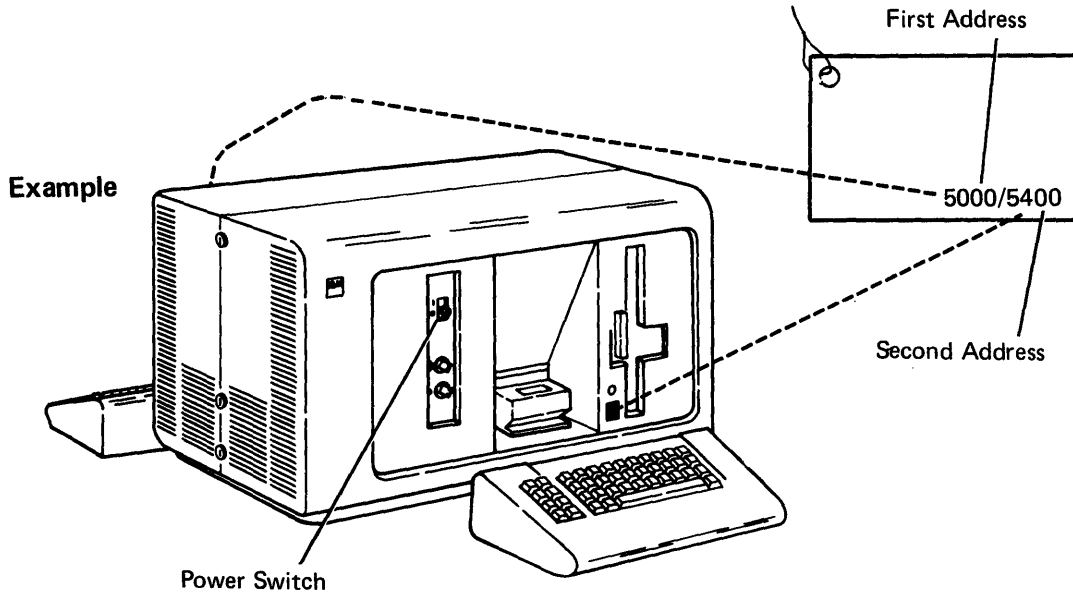
2. **Look at the orange label on the diskette drive. The label identifies the diskette drive type (1 or 2D).**

2D   1
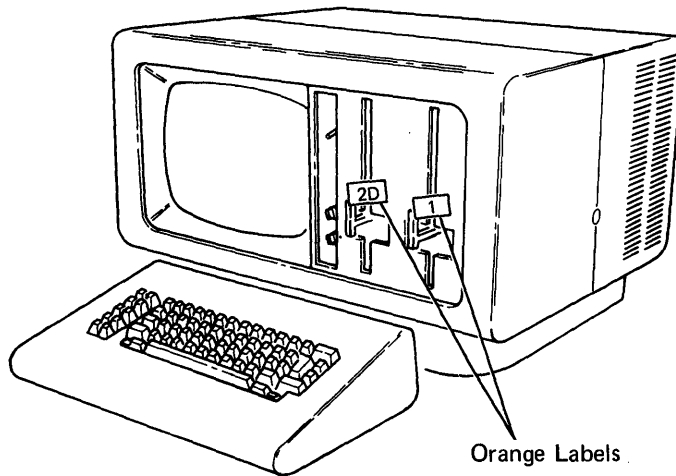
Orange Labels

3. Now, find the appropriate address and diskette drive type on the label sheet. The address and drive type are both on the same label.

4. Remove the orange label(s).

Example
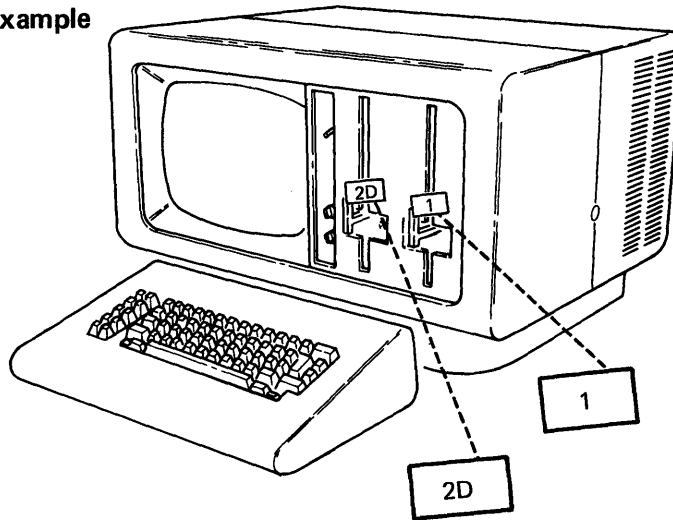
5. Stick the label into the recess area near the diskette drive.

Example
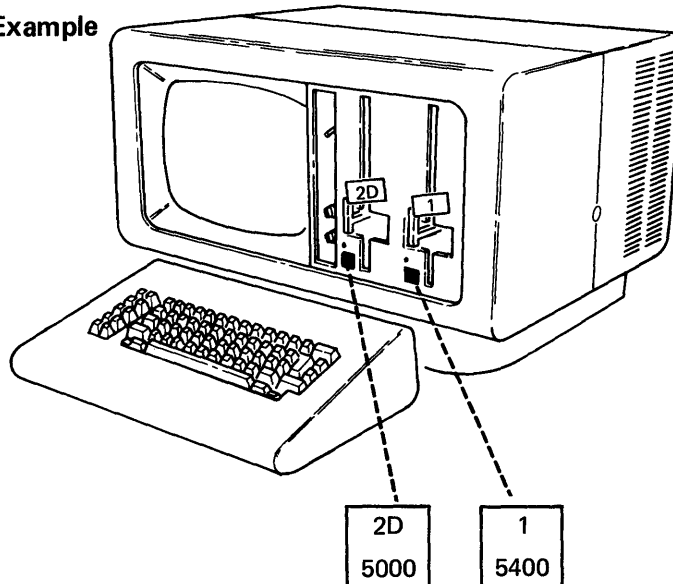
6. Repeat steps 1 through 5 until all the diskette drives on every data station are labeled.

7. If you have the IBM 5280 - 3270 Emulation Licensed Program, read and do the following. If not, go to step 8.

   a. Locate the labels in the IBM 3270 Emulation package. You will need one label for each IBM 5281 attached to your 5280 system.

   b. Install the label 52 millimeters (2 inches) from the bottom of the bezel.

52 mm
(2 inches)
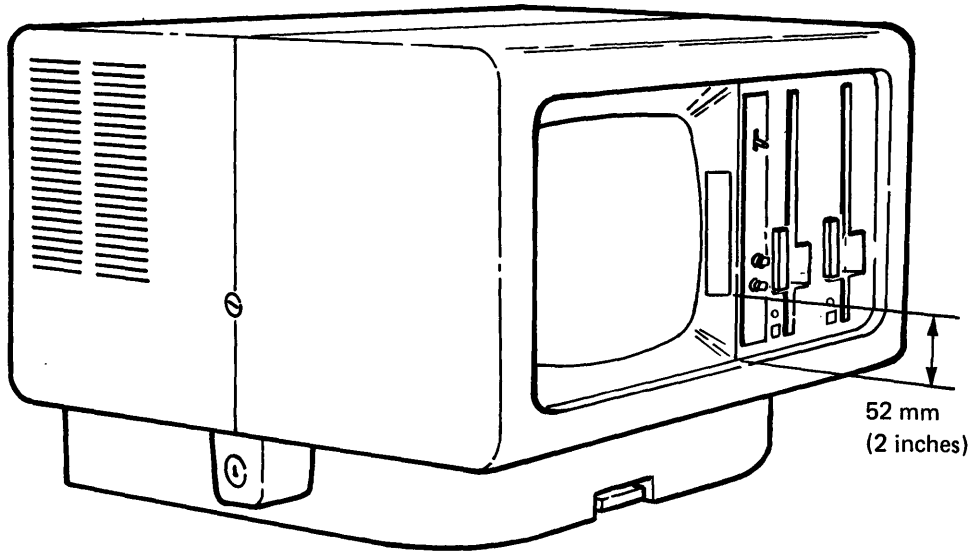
8. If you have a printer, go to the *Labeling the Printer* procedure in this section.

9. If you do not have a printer, go to Section 8, *Verification Procedure* and perform the verification procedure.

LABELING THE PRINTER

1. Look at the printer cable. On the cable is a label with the printer address.

Printer Address
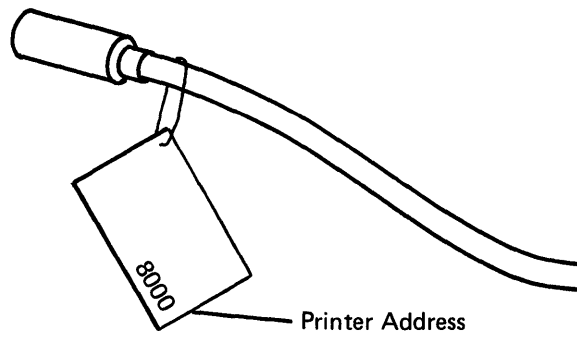
2. Find the appropriate number on the label sheet.

3. Remove the label and stick it within the recess of the label holder.
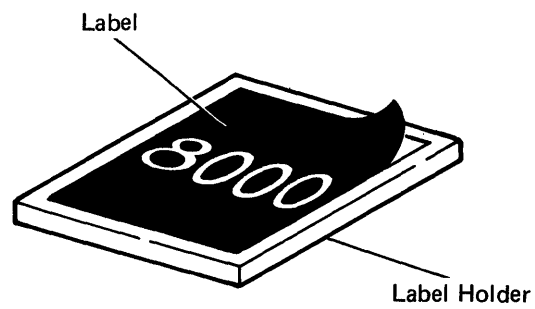
Label

Label Holder

4. Remove the protective paper from the label holder; stick the label onto the printer as shown:

Label Holder

8000

Adhesive

Protective Paper
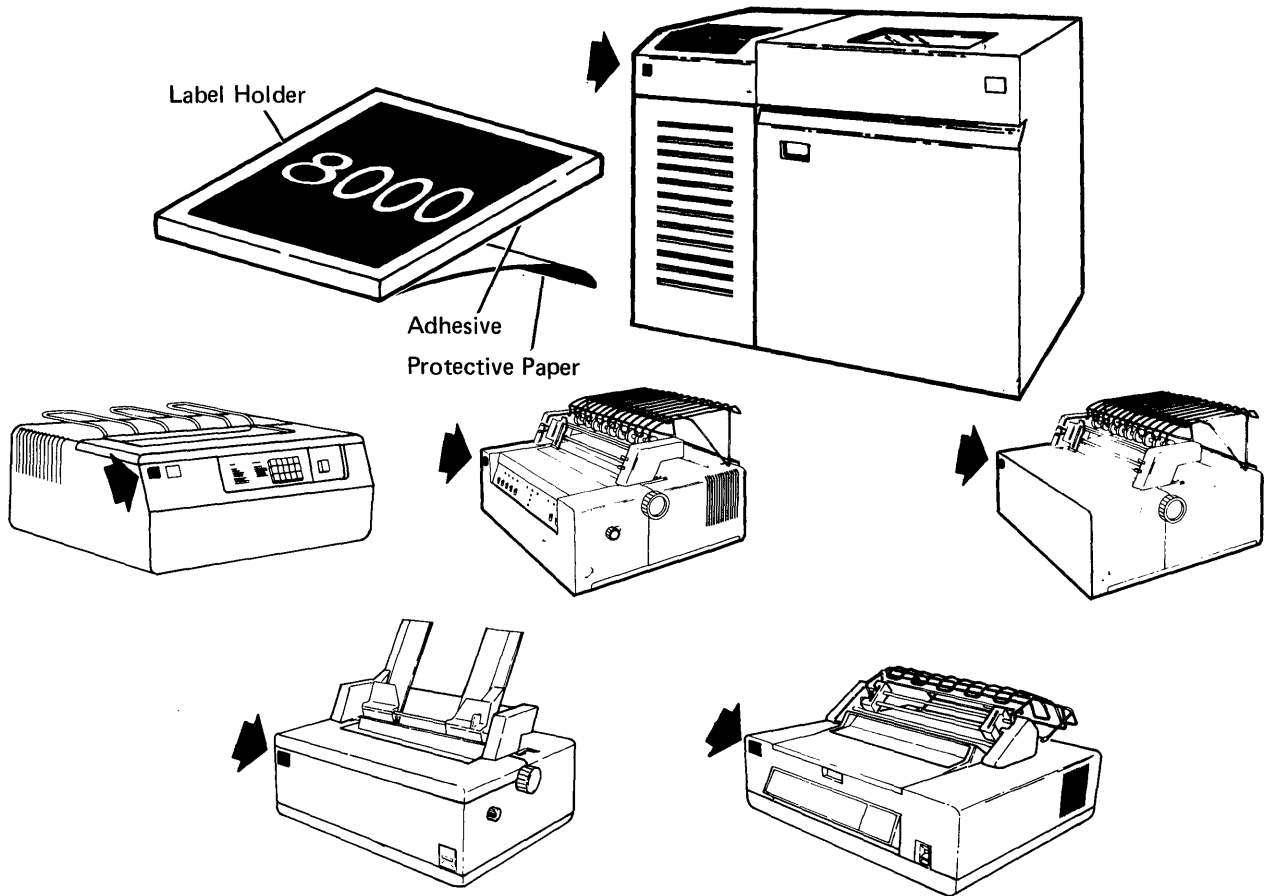
5. Repeat steps 1, 2, 3, and 4 until all of the printers have been labeled.

6. Go to Section 8, *Verification Procedure* and perform the verification procedure.

Section 8. Verification Procedure

This section will lead you through a series of steps that will verify correct operation of each of the machines and devices you have installed. The series of steps will also tell you what to do if a machine or device fails to operate correctly.

The first few pages of this section contain some basic operational information that you will need to know as you continue through the system checkout procedure. Read the section, *Basic Operational Information* before starting the section, *System Checkout Procedure*.

Verification

BASIC OPERATIONAL INFORMATION

Keyboards

The data stations on your IBM 5280 Distributed Data System will have one of
two basic types of keyboards. Both keyboard types have the same function,
but look different. Some of the more important keys that you will use are
illustrated and described below.

Data Entry Keyboard   Typewriter Keyboard
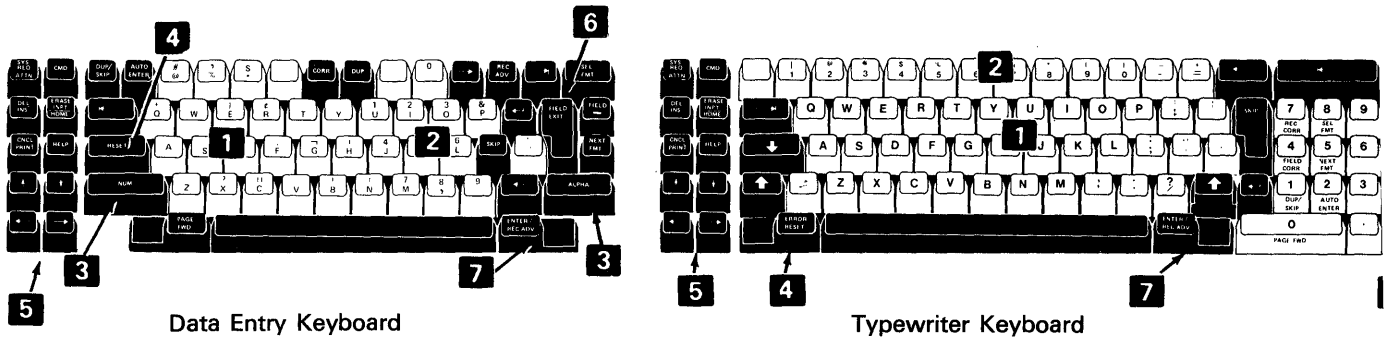
1 Alphabetic keys (A-Z) are repeating keys; that is, they continue to repeat
the same character as long as the key is pressed.

2 Numeric keys (0-9) are also repeating keys. Either set of number keys on
the typewriter keyboard can be used during the system checkout
procedure.

3 NUM and ALPHA keys on the data entry keyboard control which
type of character will be displayed on the screen when the numeric keys
are used.

4 RESET or ERROR RESET key will be used to reset (stop) a blinking
error message displayed on the screen. Throughout the system checkout
procedure, these keys will be referred to as the Reset or Error Reset
keys.

5 ◄— and —► keys will allow you to move the cursor (position
indicator) left or right on the display screen. These keys will also allow
the cursor to change lines.

6 FIELD+ or FIELD EXIT is the key you will be instructed to press after you
have pressed some alphabetic or numeric keys. Throughout the system
checkout procedure, these keys will be referred to as the Field+ or Field
Exit keys.

7 ENTER/REC ADV is the key you will be instructed to press after you
have pressed alphabetic or numeric keys or when you change displayed
screens. Throughout the system checkout procedure, this key will be
referred to as the Enter key.

Displays

Each machine that has a keyboard also has a display screen. The display screen looks like a television screen. Sometimes the display screen allows you to give instructions to the system by filling in blanks on the display. The system checkout procedure will instruct you to observe and to key onto these display screens.

You will observe a position indicator (similar to a dash) on the display screen. This is called a cursor. It indicates where the next character or number that you key will be displayed.

```
0 0003      A 14 40

Verification test in operation.

Program name:   TD_

Device address:

Partition number:

                        Press ENTER                    50-00
```
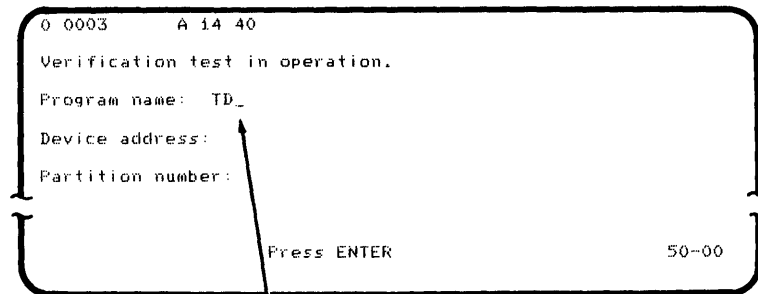
Cursor Indicates Where
Next Keyed Character Will
Be Displayed

One display screen that you will see and use often is the *program load screen*.

```
0-4000*3151*    TPARTL    TKBD  ◄─────── 1

Verification test in operation.

Program name:   TKBD  ◄──────────── 2

Device address:    4000 ◄────────── 3

Partition number: ◄──────────────── 4


                   Press ENTER       5 ──────────► 50-00
```
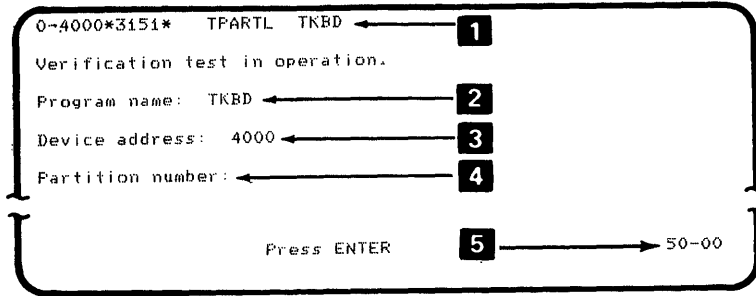
1 This display line is called a status line. When it blinks, it is indicating to you that the system checkout procedure has found a machine failure, or it is indicating that you have done something wrong. An error code number is displayed in the blinking status line. The error code number is enclosed within asterisks or dashes. For example, the error code number shown in the status line of the illustration above is *3151*.

You will find a description of every error code number in the *IBM 5280 Message Manual* that came with your system. The error code description in the *Message Manual* will describe the machine failure or will indicate what you may have done wrong to cause the error. When the error code description indicates a machine failure, record the error code number for your service representative.

While the status line is blinking, you are unable to use any of the alphabetic keys or the numeric keys. Pressing the Reset or Error Reset key makes the error code disappear, stops the status line blinking, and makes the keyboard usable. You will have to correct the problem that caused the blinking error code or call your service representative if the error code indicates a machine failure.

2 This is the display line where you will be instructed to key TKBD, TDSK, TPRNT, TCOM, or TPROC. Keying these names will indicate which part of the system checkout procedure is to be started.

3 This is the display line where you will be instructed to key a four-digit number. The number identifies a diskette drive. The diskette drive numbers are 4000, 4400, 4800, 4C00, 5000, 5400, 5800, or 5C00. Notice that 4C00 and 5C00 have the letter C in them. This will require that you press and hold the Alpha key on some keyboards.

4 You will not be instructed to key anything on the Partition number line during the system checkout procedure.

5 Each display screen has a four-digit number in the lower-right corner. This four-digit number can help you identify and compare the display screens to the illustrations in this section.

Diskettes

At certain times during the system checkout procedure, you will be asked to insert a verification diskette or a blank diskette 2D into a diskette drive, usually diskette drive 4000. You will find these diskettes in the envelope in which you found this manual. These diskettes look like the following illustrations.

```
DISK PART NO.       XXXXXXX    MACH TYPE      5280
E. C. NO.            XXXXX     DATE        XX/XX/XX

VERIFICATION PROGRAMS AND ERROR LOG FILES
DO NOT ALTER THE CONTENTS OF THIS DISKETTE
```

Verification Diskette   Blank Diskette 2D
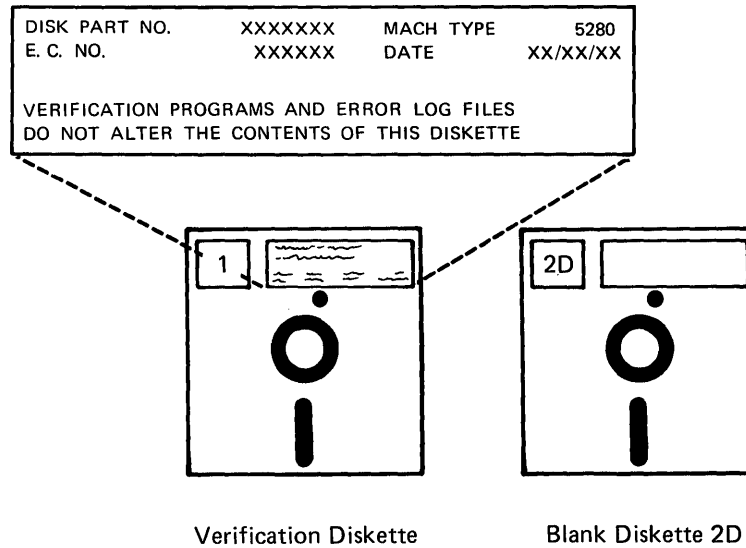
Although these diskettes are not fragile, exercise caution when handling them. Handle them only by the label edge and try to keep them clean. Do not write on them or fold them.

Diskette Drives

Your system may have up to eight diskette drives. The diskette drives look like the following illustration.
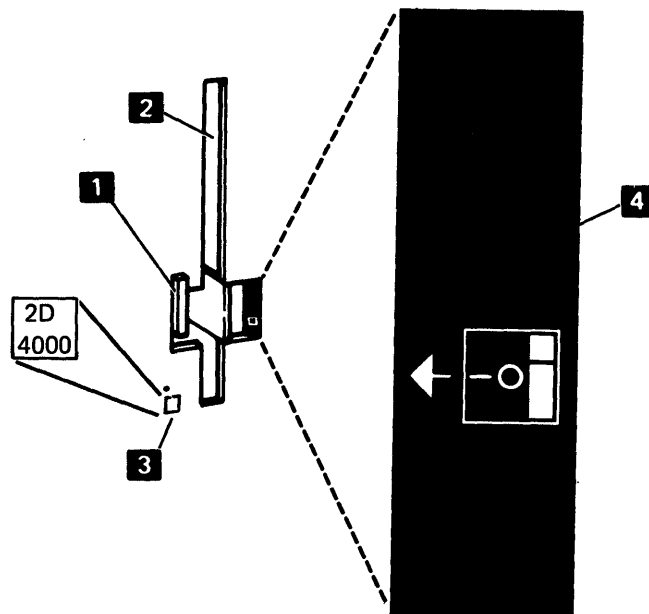
Four things about the diskette drive are important to you during the system checkout procedure.

1 The diskette locking lever has to be turned to a vertical position to allow you to insert a diskette. The diskette locking lever has to be turned to a horizontal position after a diskette has been inserted.

Locking Lever Vertical
To Insert Diskette
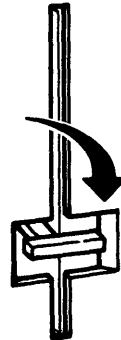
Locking Lever Horizontal
After Diskette Is Inserted

Note: All diskette locking levers must be in the vertical position before you turn the power on or off at the controller.

2 The diskette drive slot is where you insert the diskette when instructed by the system checkout procedure. Slide the diskette all the way into the slot, with the label on the left.

3 The diskette drive label contains information that you will need during the system checkout procedure. The top two digits indicate the type of diskette drive. The IBM 5280 Distributed Data System may have either a compact diskette drive supporting diskette 1, a compact diskette drive supporting diskette 2D, or a combination of the two types of diskette drives. The two types look and function the same. The system checkout procedure will ask you which type you have. Throughout the system checkout procedure, these diskette drives will be referred to as a diskette 1 drive or a diskette 2D drive.

The bottom four digits indicate the device address. There are eight possible device addresses: 4000, 4400, 4800, 4C00, 5000, 5400, 5800, or 5C00. The system checkout procedure will instruct you to find and use each diskette drive on your system. The system checkout procedure will ask you to key these device address numbers on some display screens.

4 The diskette insertion decal is a reminder to you that the diskettes are to be inserted in the slot with the diskette label on the locking lever side (your left) and the diskette label going into the slot last.

Diskette Label
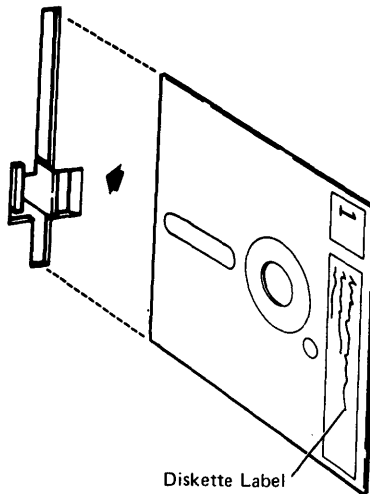
SYSTEM CHECKOUT PROCEDURE

This procedure is designed to verify correct operation of your IBM 5280 Distributed Data System. If you have a problem or think you have done something wrong that would prevent successful completion of the procedure, feel free to set the Power switches to 0 (Off) position, wait a few seconds, set the Power switches to 1 (On) position, and return to step 1.

1. **Power on the system as follows:**

   a. **Caution: Make sure all the locking levers are open on the diskette drives. Never turn the power on or off when the locking levers are closed.**

Locking Lever in
Vertical Position
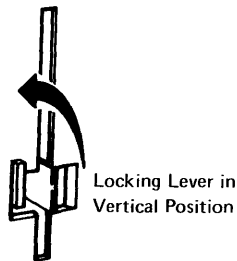
   b. **Set the Power switch to 1 (on) position for all data stations attached to the controller. (A data station is an IBM 5281 or IBM 5282, the controller is an IBM 5285, an IBM 5286, or an IBM 5288.)**
   c. **If a printer is attached, set the Power switch to 1 (on) position.**
   d. **If you have communications, make sure the cable to the modem is connected.**
   e. **Set the Power switch to 1 (on) position for the controller (an IBM 5285, IBM 5286, or IBM 5288).**

   After power has been turned on, all machines in your system will make noise, and various test patterns will appear on the display screens.
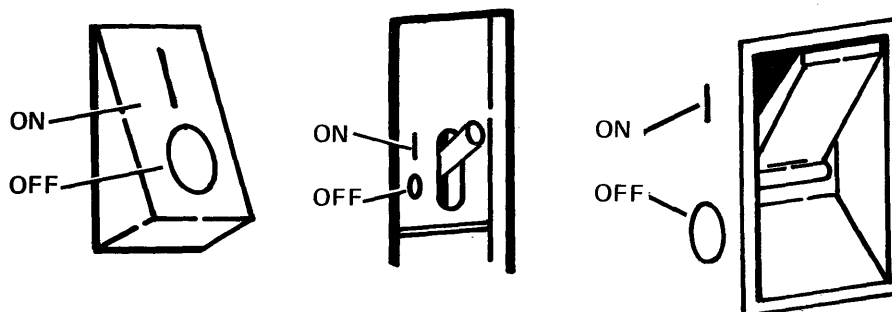
2. **If you have a Keylock feature, turn the keylock to the right (clockwise).**

The keylock is a feature that **may** be on IBM machines 5285, 5286, or 5288. Two keys are shipped with each machine that has the Keylock feature. You will find these keys in the envelope in which you found this manual. Use the key that permits you to turn the lock to the right.

IBM 5286

Locked Position

IBM 5285

IBM 5288
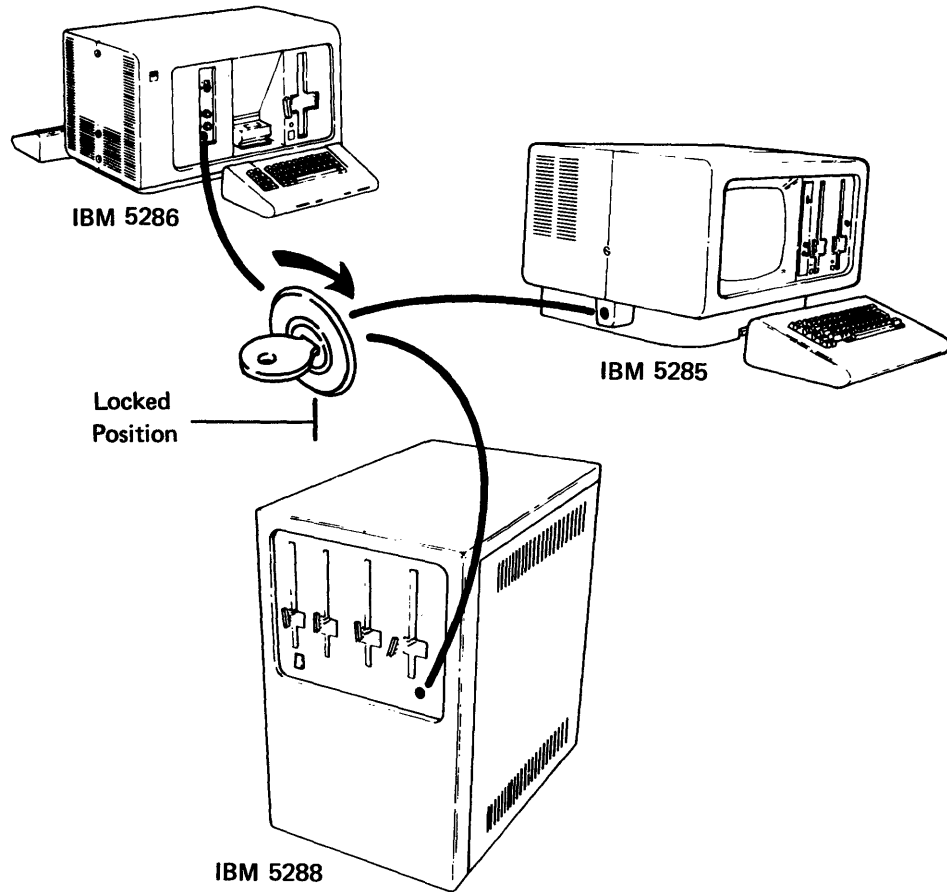
3. **Locate the verification diskette.**

The verification diskette will be found in the envelope in which you found this manual. Take the diskette out of the protective envelope.

4. Insert the verification diskette in the diskette drive having the device address 4000.

a. Insert the verification diskette in the diskette drive slot as shown. Push the diskette all the way to the back of the slot.
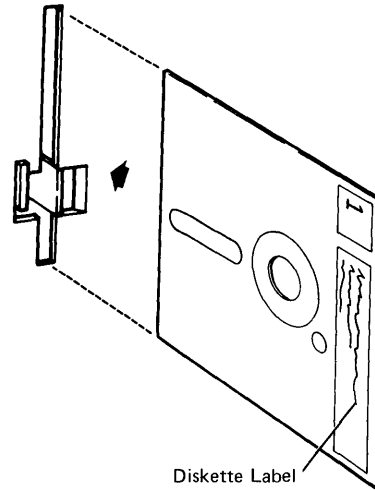
Diskette Label

b. Move the diskette locking lever to the horizontal position.

Locking Lever in
Horizontal Position
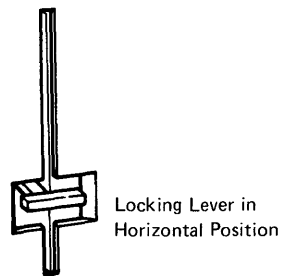
5. Locate keyboard 0 and observe this display.

It may take a few seconds for this display to appear.

```
THIS IS YOUR 5280 VERIFICATION PROGRAM.


Press ENTER to continue.                                50-01
```
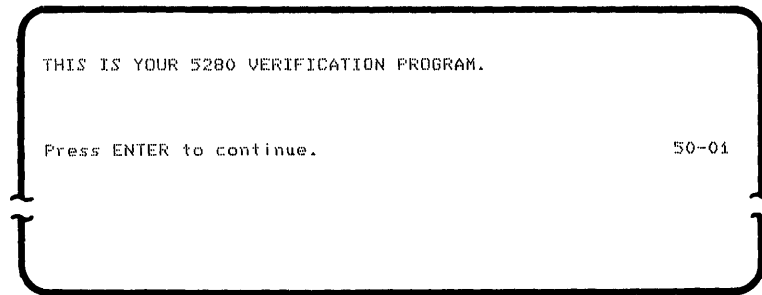
Note: While running the verification procedure, you will notice some noises from the diskette drives and some buzzing from the keyboard. Test patterns will also appear on the display between some prompts. This is normal.

6. Do the following:

If the display in step 5 appears, go to step 7.

If the display in step 5 does not appear, go to step A1.

A1. If the machines do not buzz when you set the Power switches to the 1 (On) position, check to see if the following is true:

Power is available at each outlet.

All power cord plugs are plugged into receptacles.

The power switches of all data stations and printers are set to the 1 (On) position.

Once the checks are completed, go back to step 1 and repeat the procedure. If after repeating steps 1 through 5, the display shown in step 5 does not appear, call your service representative.

A2. If the machines buzz when you set the Power switches to the 1 (On) position, check the following:

Is the brightness and contrast control adjusted properly?

Is the keylock turned to the right (clockwise)?

Are the display and diskette drive cables connected properly? If the expected display appears on a different data station, or if the display appears upside down or backward, check your cabling with the setup sheet and floor plan.

A3. Check the diskette and diskette drive for the following:

Is the verification diskette in diskette drive 4000?

Is the verification diskette inserted properly?

Is the diskette locking lever in the horizontal position?

Once the checks are completed, go back to step 1 and repeat the procedure. If, after repeating steps 1 through 5, the display shown in step 5 does not appear, call your service representative.

7. **Press the Enter key and observe this display.**

This display is for your information. The Xs shown in this display will be numbers supplied by your system.

```
Keyboard information for this system

    0X          Total number of keyboards connected to this system


    XXXK        Display storage size


Press ENTER to continue                                      50-02
```

Note: The number supplied by your system for "Total number of keyboards connected to this system" is the total keyboard capability you ordered, not the physical number of keyboards you have attached.

8. **Press the Enter key and observe this display.**

```
Press the number 2




                                                             51-01
```

9. **Press the number 2.**

Do not press the Enter key. If your keyboard has two keys with the number 2 on the keytops, you can use either key.

B1. If you pressed a key other than the number 2, observe this display and press the Enter key. Then rekey the number 2.

```
The number 2 was not pressed.

Press ENTER to reshow prompt.                                51-03
```

10. Observe this display.

```
                        Press the letter Z.




                                                    51-02
```
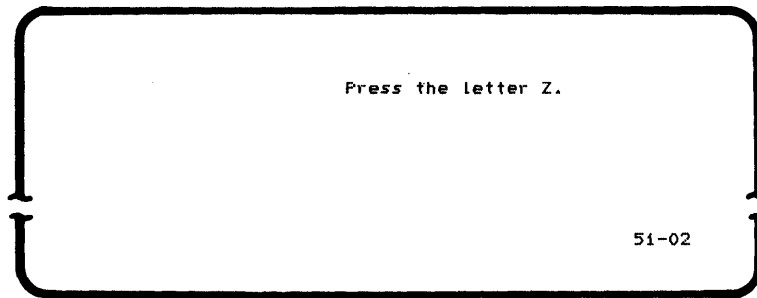
11. Press the letter Z.

Do not press the Enter key.

> **C1.** If you pressed a key other than the letter Z, observe this display and press the Enter key. Then rekey the letter Z.
>
> ```
> The letter Z was not pressed.
> Press ENTER to reshow prompt.                    51-04
> ```
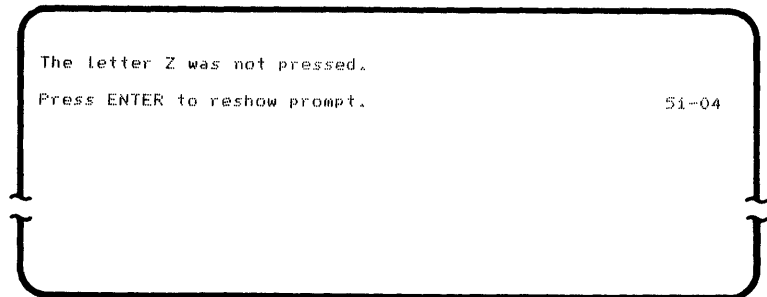
12. Observe this display. Do Not press the Enter key at this time.

This is the program load screen.

```
0 0001       A 16 40

Verification test in operation.

Program name:

Device address:

Partition number:
                    Press ENTER                    50-00
```
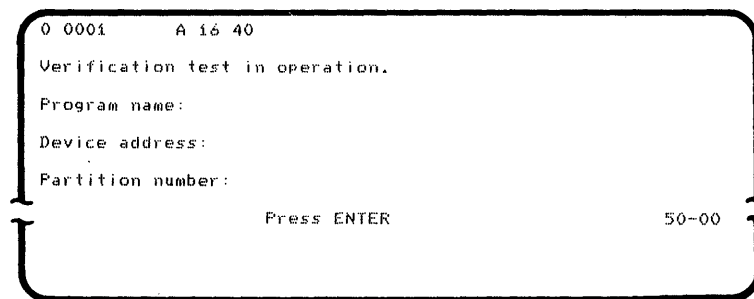
13. **Make a check mark in the box ☑ below indicating completion of step 9 through step 12 for this keyboard.**

Keyboard Number	Steps 9–12 Completed
0	☐
1	☐
2	☐
3	☐

Repeat step 9 through step 12 for each keyboard (maximum of fou. keyboards) on your system.

When you have completed steps 9 through 13 for each keyboard on your system, read the progress check block and continue to the next step.

PROGRESS CHECK

1. **You should have keyed a 2 and a Z at each keyboard on your system.**

14. Move to keyboard 0, and do the following:

a. Make sure that the verification diskette is in diskette drive 4000.
b. Key TKBD after the words Program name.
c. Press the Field+ or Field Exit key.
d. Key 4000 after the words Device address.
e. Press the Enter key.

15. If this display appears, key the number 1 and press the Enter key.

This display will appear **only** if your system has a Magnetic Stripe Reader feature.

```
Workstation test.

   Options are

      1.  Keyboard

      2.  Magnetic stripe reader

Select option:     _   Press ENTER                    52-01
```

16. Observe this display.

```
Enter characters on keyboard and observe display.  If

these do not correspond refer to manual.




Press ENTER to terminate.                           52-03
```

17. **Press all the alphabetic keys (ABC...XYZ) and numeric keys (012...789) and observe this display.**

If you have a data entry keyboard, you will have to press and hold the Num key when keying the numbers.

If you have a typewriter keyboard, you can enter the alphabetic keys in either upper case (ABC...) or lower case (abc...).

For this test, use only the A through Z and 0 through 9 keys. Do not press special character keys because they may not function correctly in this system checkout procedure.

```
Enter characters on keyboard and observe display.  If

these do not correspond refer to manual.
ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789


Press ENTER to terminate.                        52-03
```

D1. If some of the keys that you pressed do not display the characters that you expected, press the [←] key and repeat step 17. If the characters that you press still do not display correctly, call your service representative.

18. **Press the Enter key when you are satisfied that the keys you pressed displayed the correct characters.**

19. **Observe this display.**

```
Test complete.

  Options are

    1.  Restart

    2.  Exit
Select option:    _   Press ENTER                 52-78
```

20. **Press the number 2, then press the Enter key.**

The program load screen will be displayed.

21. **Make a check mark in the box ☑ below indicating completion of step 15 through step 20 for this keyboard.**

Keyboard Number	Steps 15–20 Completed
0	☐
1	☐
2	☐
3	☐

You can have a maximum of four keyboards on your system.

If you have not completed step 15 through 21 for each keyboard, go to step 22.

If you have completed step 15 through step 21 for each keyboard, go to the progress check block and continue to the next step.

22. **Move to the next higher numbered keyboard and do the following:**

a. Make sure that the verification diskette is in diskette drive 4000.
b. Key TKBD after the words Program name.
c. Press the Field+ or Field Exit key.
d. Key 4000 after the words Device address.
e. Press the Enter key. Go to step 15.

PROGRESS CHECK

1. You should have keyed a 2 and a Z at each keyboard on your system.
2. You should have keyed the characters ABC...XYZ and 012...789 at each keyboard on your system.

23. **Move to keyboard 0 and do the following:**

   a. Make sure that the verification diskette is in diskette drive 4000.
   b. Key TDSK after the words Program name.
   c. Press the Field+ or Field Exit key.
   d. Key 4000 after the words Device address.
   e. Press the Enter key.

24. **Observe this display.**

```
What type of drive do you want to test?

   Options are

      1.  1 -- Single density

      2.  2D - Double density

Select option:    _  Press ENTER                    53-01
```
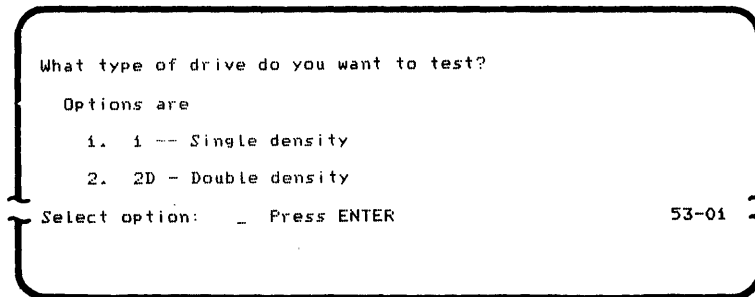
25. **Determine the type of diskette drive.**

   Look at the label next to the diskette drive where the verification diskette is located.
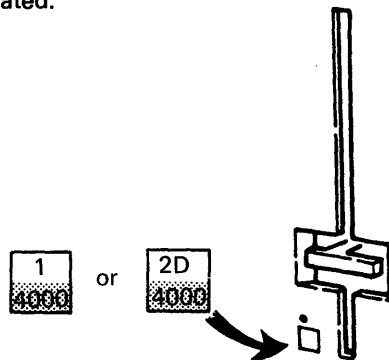
26. **If the label is a type 1, go to step 27.**
    If the label is a type 2D, go to step 36.

27. **Press the number 1, then press the Enter key.**

28. **Observe this display.**

```
Insert verification diskette in drive to be tested and enter
device address:



                        Press ENTER                        53-02
```
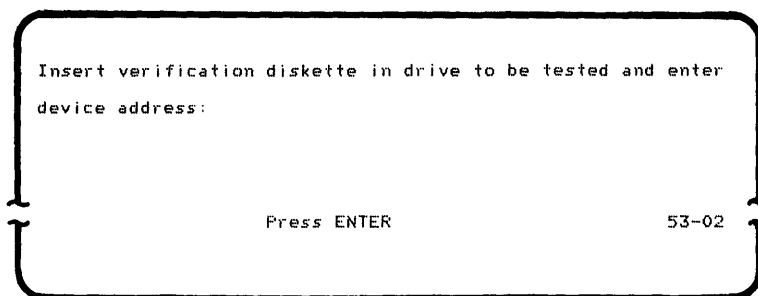
29. **Determine the device address of the diskette drive where the verification diskette is located.**

    The device address is the four-digit number on the label next to the diskette drive.
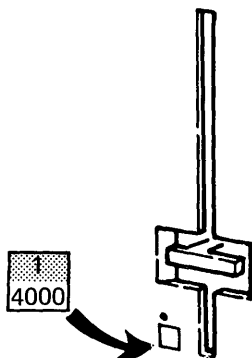
30. **Key the device address and press the Enter key.**

    You may have to press and hold the Alpha key while pressing the letter C in some four-digit numbers of the diskette drive.

    After pressing the Enter key, the red light over the device address label will go on while the diskette drive is in use. If this light does not go on, call your service representative.

31. Observe this display.
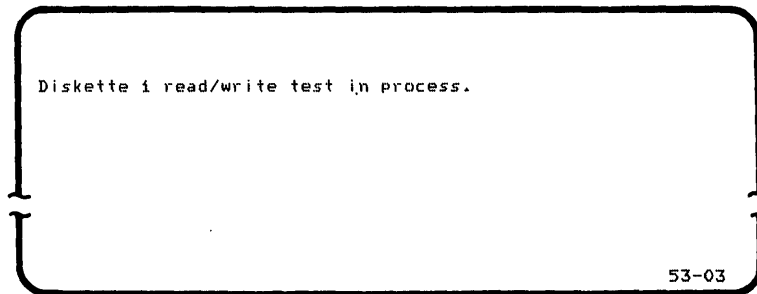
This display will appear for approximately 30 seconds.

```
Diskette 1 read/write test in process.



                                                    53-03
```

E1. If the top line of the display starts blinking, press the Reset or Error Reset key. The following display will appear.

```
Test terminated.

   Options are

      1.  Restart

      2.  Exit

 Select option:    _   Press ENTER                    53-79
```
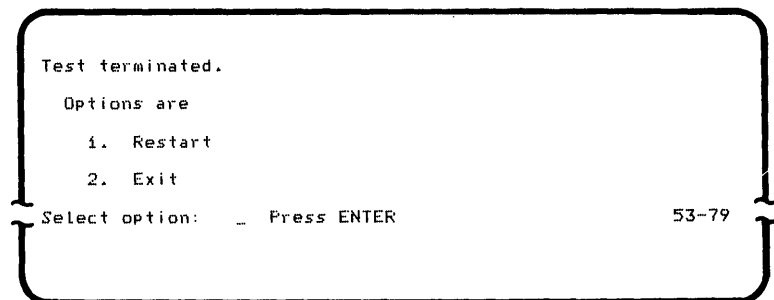
E2. Press the number 1, then press the Enter key. Repeat step 24 through step 31. If the top line of the display starts blinking again, record the four-digit error code number for reference and call your service representative.

32. Observe this display. Press the Enter key.

```
Type 1 Test Complete.




                    Press ENTER              53-04
```
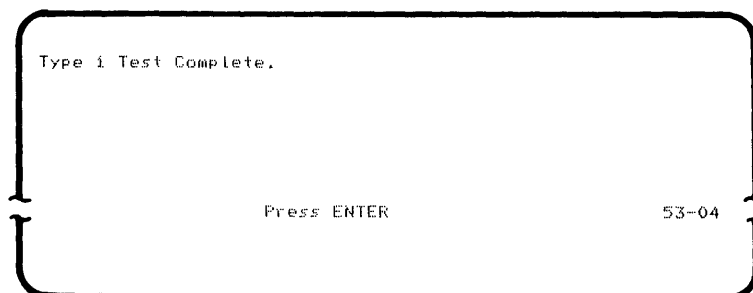
33. Make a check mark in the box ☑ below indicating completion of step 24 through step 32 for this diskette drive.

Diskette Drive	Steps 24–32 Completed
4000	☐
4400	☐
4800	☐
4C00	☐
5000	☐
5400	☐
5800	☐
5C00	☐

You can have a maximum of eight diskette drives on your system.

34. Observe this display.

a. Press the number 1 if you have more diskette drives to check out.
b. Press the number 2 if this is the last diskette drive to check out.
c. Press the Enter key.

```
Test complete.

  Options are

    1.  Restart

    2.  Exit

Select option:   _  Press ENTER                    53-78
```

35. Move the verification diskette to the next higher number diskette drive indicated in the table of step 33 and go to step 24.

When you have completed step 24 through step 35 for each diskette 1 drive, go to step 48.

36. **Press the number 2 to select the 2D–double density test, then press the Enter key.**

37. **Observe this display.**

```
Insert verification diskette in drive to be tested and enter
device address:



                        Press ENTER                        53-02
```
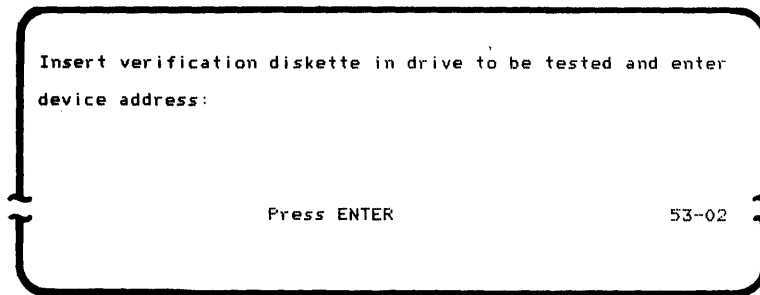
38. **Determine the device address of the diskette drive where the verification diskette is located.**

    The device address is the four-digit number on the label next to the diskette drive.
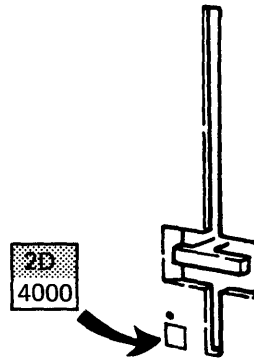
39. **Key the device address and press the Enter key.**

    You may have to press and hold the Alpha key while pressing the letter C in some four-digit numbers of the diskette drive.

    After pressing the Enter key, the red light over the device address label will go on while the diskette drive is in use. If this light does not go on, call your service representative.

40. Observe this display.

This display will appear for approximately 30 seconds. (The diskette 1 checkout procedure is a part of the diskette 2D checkout procedure.)
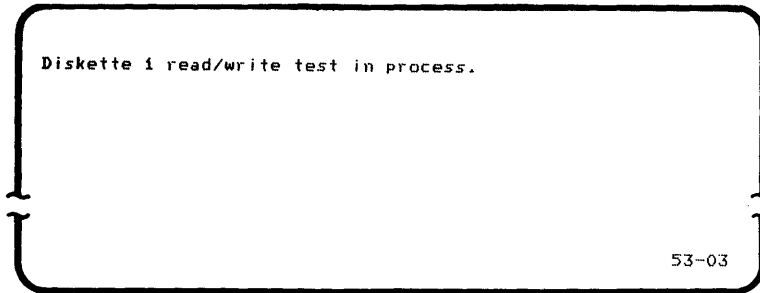
```
Diskette 1 read/write test in process.




                                                            53-03
```

F1. If the top line of the display starts blinking, press the Reset or Error Reset key. The following display will appear:

```
Test terminated.

  Options are

   1.  Restart

   2.  Exit

Select option:    _   Press ENTER                     53-79
```
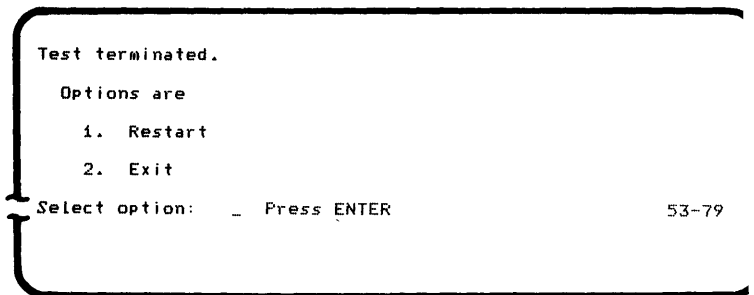
F2. Press the number 1, then press the Enter key. Repeat steps 24 through 40. If the top line of the display starts blinking again, record the four-digit error code number for reference and call your service representative.

41. Observe this display.

```
Type 1 Test Complete

Remove the verification diskette.

Insert a blank Diskette 2D in the drive

being tested.
                    Press ENTER              53-05
```
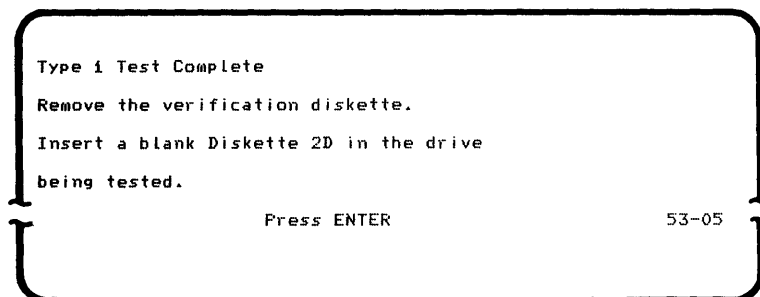
42. Do the following:

a. Remove the verification diskette from the diskette drive.
b. Insert a blank 2D diskette in the same drive. You will find a blank 2D
   diskette in the envelope shipped with each machine that has a 2D diskette
   drive.
c. Press the Enter key.

G1. If the top line of the display starts blinking, press the
    Reset or Error Reset key. The following display will
    appear:

```
Test terminated.

 Options are

   1.  Restart

   2.  Exit

Select option:   _   Press ENTER                    53-79
```

G2. Press the number 1, then press the Enter key. Repeat
    steps 24 through 42. If the top line of the display starts
    blinking again, record the four-digit error code number
    for reference and call your service representative.

43. Observe this display.

This display will appear for approximately 1 minute.

```
Diskette 2D read/write test in process.




                                              53-06
```

44. Observe this display. Press the Enter key.

```
Type 2D Test Complete




         Press ENTER                       53-07
```

45. Make a check mark in the box ☑ below indicating completion of steps 36 through 44 for this diskette drive.

Diskette Drive	Steps 36–44 Completed
4000	☐
4400	☐
4800	☐
4C00	☐
5000	☐
5400	☐
5800	☐
5C00	☐

You can have a maximum of eight diskette drives on your system.

46. Observe this display.

Press the number 1 if you have more diskette drives to check out. Press the number 2 if this is the last diskette drive to check out. Press the Enter key.

```
Test complete.

   Options are

     1.  Restart

     2.  Exit

Select option:   _   Press ENTER                    53-78
```

47. Insert the verification diskette in the next diskette drive indicated in the table.

When you have completed steps 36 through 47 for each 2D diskette drive, go to step 48.

48. Make sure all 1 and 2D diskette drives have been checked.

If your system has both 1 and 2D diskette drives, system checkout procedures must be completed for each diskette drive.

Read the progress check block and continue to the next step.

PROGRESS CHECK

1. You should have keyed a 2 and a Z at each keyboard on your system.
2. You should have keyed the characters ABC...XYZ and 012...789 at each keyboard on your system.
3. You should have moved the verification diskette into and out of every diskette drive, and moved the blank 2D diskette into and out of every 2D diskette drive on your system.

49. Continue with the following steps if you have one or more printers on your system. If you have no printers on your system, go to step 56.

50. At each printer do the following:
   a. Make sure the Power switch is turned on.
   b. Make sure the correct paper or forms are inserted.
   c. Press the Stop switch, then the Start switch (if your printer has these switches).
   d. Make sure the Ready light is on (if your printer has the Ready light).
   e. If the printer is connected to an IBM 5288 using the Cable Thru feature, do the following:
      1) Make sure that the input/output cables are connected properly. (These connections are described under *IBM 5288 Setup Procedure*, steps 14 through 16.)
      2) Make sure that the address switches are set correctly. (The switch settings are described under *IBM 5288 Setup Procedure*, steps 17 and 18.)
      3) Make sure that the terminator switches are set correctly. The terminator switch on the last printer must be set to 1. All the others must be set to 2. (The terminator switch settings are described under *IBM 5288 Setup Procedure*, step 19.)

51. Move to keyboard 0 and do the following:
   a. Insert the verification diskette into diskette drive 4000.
   b. Key TPRNT after the words Program Name.
   c. Press the Field+ or Field Exit key.
   d. Key 4000 after the words Device address.
   e. Press the Enter key.

52. Observe this display and do the following:
   a. Key the printer machine number after the words Printer type.

You will find the printer type number on the machine name plate and the printer address number on the four-digit label on the front cover of the printer.

Machine Name Plate   Four-Digit Label

IBM

XXXX Printer   8000
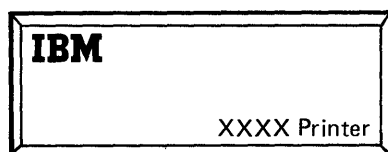
                                      Printer
Printer Type Number.   Address

b. Press the Field+ or Field Exit key.

c. Key the four-digit label number after the words Printer address.

d. Press the Enter key.

```
Printer test

Specify the following.

Printer type

Printer address:


                        Press ENTER                    54-01
```

53. Observe this display. Press the Enter key.

   For this system checkout procedure, use the automatically selected option 2.

```
Do you want continuous operation?

   Options are

   1.  Yes

   2.  No

Select option:    2   Press ENTER                    54-02
```

   If you are checking an IBM 5222 printer make sure the
   CPI switch and LPI switch are in the PROG. CNT
   position. These switches are located under the sliding top
   cover of the IBM 5222 printer.

Note: If you select option 1, the Printer test will run continuously. To stop
the test, press and hold the Command key (the key marked CMD located near
the top left corner of the keyboard). With the Command key depressed:

a. If you have a typewriter keyboard, press the number 7 key in the top
   row.

   or

b. If you have a data entry keyboard, press the key marked DUP in the top
   row.

54. Observe the following:

This display will appear for approximately two minutes.

```
┌─────────────────────────────────────────────┐
│                                               │
│  TPRNT in process.                            │
│                                               │
│                                               │
│                                               │
│                                               │
│                                    54-03      │
└─────────────────────────────────────────────┘
```

The printer will start printing a test pattern. Compare this test pattern to the following test pattern illustration.

H1.   If the top line of the display starts blinking, press the Reset or Error Reset key. The following display will appear:

```
┌─────────────────────────────────────────────┐
│                                               │
│  Test Terminated.                             │
│     Options are                               │
│       1. Restart                              │
│       2. Exit                                 │
│  Select option:   _  Press ENTER      54-79   │
│                                               │
│                                               │
└─────────────────────────────────────────────┘
```

H2.   Press the number 1, then press the Enter key. Repeat steps 52 through 54. If the top line of the display starts blinking again, record the four-digit error code number for reference and call your service representative.

H3.   If the printed test pattern does not compare to the following test pattern illustration for your printer, call your service representative.

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ        0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\                A
BCDEFGHIJKLMNOPQRSTUVWXYZ         0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\               AB
CDEFGHIJKLMNOPQRSTUVWXYZ          0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\              ABC
DEFGHIJKLMNOPQRSTUVWXYZ           0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\             ABCD
EFGHIJKLMNOPQRSTUVWXYZ            0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\            ABCDE
FGHIJKLMNOPQRSTUVWXYZ             0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\           ABCDEF
GHIJKLMNOPQRSTUVWXYZ              0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\          ABCDEFG
HIJKLMNOPQRSTUVWXYZ               0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\         ABCDEFGH
IJKLMNOPQRSTUVWXYZ                0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\        ABCDEFGHI
JKLMNOPQRSTUVWXYZ                 0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\       ABCDEFGHIJ
KLMNOPQRSTUVWXYZ                  0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\      ABCDEFGHIJK
LMNOPQRSTUVWXYZ                   0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\     ABCDEFGHIJK
MNOPQRSTUVWXYZ                    0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLM
NOPQRSTUVWXYZ                     0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLM
OPQRSTUVWXYZ                      0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMN
PQRSTUVWXYZ                       0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMNO
QRSTUVWXYZ                        0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMNOP
RSTUVWXYZ                         0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMNOPQ
STUVWXYZ                          0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMNOPQR
TUVWXYZ                           0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMNOPQRS
UVWXYZ                            0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMNOPQRST
VWXYZ                             0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMNOPQRSTU
WXYZ                              0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMNOPQRSTUV
XYZ                               0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMNOPQRSTUVW
YZ                                0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMNOPQRSTUVWX
Z                                 0123456789        abcdefghijklmnopqrstuvwxyz      ¢.<(+|&!$*);¬-/!,%_)?`:#@'="■¯()\    ABCDEFGHIJKLMNOPQRSTUVWXY


              1         2         3         4         5         6         7         8         9         1         1         1         1
                                                                                                          0         1         2         3
  1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
         I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I
33                                                      XXXXXXXX                                                                            33
34                                                 XXXX           XXXX                                                                      34
35                                            XXXX                     XXXX                                                                 35

38                          XXXX                                                            XXXX                                            38
39                      XXXX                                                                    XXXX                                        39
40                  XXXX                                                                            XXXX                                    40
41              XXXX    IIIIIIIIII      BBBBBBBBBB      MM                MM      XXXX                                                       41
42          XXXX            II          BB      BB      MMM              MMM          XXXX                                                  42
43      XXXX                II          BB      BB      MMMM            MMMM              XXXX                                              43
44  XXXX                    II          BB      BB      MM MM          MM MM                  XXXX                                          44
45      XXXX                II          BB      BB      MM  MM        MM  MM                      XXXX                                      45
46  XXXX                    II          BB      BB      MM   MM      MM   MM                          XXXX                                  46
47  XXXX                    II          BB      BB      MM    MM    MM    MM                              XXXX                              47
48NNNN                      II          BBBBBBBBBB      MM     MM  MM     MM                                  NNNN48
49  XXXX                    II          BB      BB      MM      MMMM      MM                              CRLF
50      XXXX                II          BB      BB      MM       MM       MM                          XXXX                                  50
51          XXXX            II          BB      BB      MM                MM                      XXXX                                      51
52C            MMMM         II          BB      BB      MM                MM                  XXCR
53              XXXX        II          BB      BB      MM                MM              AAAA                                               53
54          XXXX            II          BB      BB      MM      MMM       MM          XXXX                                                  54
55      XXXX    IIIIIIIIII      BBBBBBBBBB      MM        M        MM      XXXX                                                             55
56  XXXX                                                                        XXXX                                                        56
57      XXXX                                                                IIII                                                            57
58  XXXX                                                                XXXX                                                                58

61                          UUUU                    UUUU                                 1    1    1    1    1    1    1
62      1    1    2    2    3    3    4    4    5    5    XXXX      XXXX    8    8    9    9    0    0    1    1    2    2    3
63  5    0    5    0    5    0    5    0    5    0    5    XXXXXXXX        0    5    0    5    0    5    0    5    0    5    0
64  I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I    I
```

Note: The test pattern is printed to ensure that the printer interface is operating correctly. The style of the characters and the characters that are printable vary depending on which printer is being tested. Because of this, the characters in the test pattern printed on your printer might not match exactly the characters shown here. However, the pattern itself should be correct.

Printer test pattern

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    アイウエオカキクケコサシスセソタ...    £.((+|&!¥*);^-/-,%_)?-:$@'="...() s    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    アイウエ
BCDEFGHIJKLMNOPQRSTUVWXYZ     0123456789    アイウエオカキクケコサシスセソタ...    £.((+|&!¥*);^-/-,%_)?-:$@'="...() s    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    アイウエオ
CDEFGHIJKLMNOPQRSTUVWXYZ      0123456789    アイウエオカキクケコサシスセソタ...    £.((+|&!¥*);^-/-,%_)?-:$@'="...() s    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    アイウエオカ
DEFGHIJKLMNOPQRSTUVWXYZ       0123456789    アイウエオカキクケコサシスセソタ...    £.((+|&!¥*);^-/-,%_)?-:$@'="...() s    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    アイウエオカキ
EFGHIJKLMNOPQRSTUVWXYZ        0123456789    アイウエオカキクケコサシスセソタ...    £.((+|&!¥*);^-/-,%_)?-:$@'="...() s    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    アイウエオカキク
FGHIJKLMNOPQRSTUVWXYZ         0123456789    アイウエオカキクケコサシスセソタ...    £.((+|&!¥*);^-/-,%_)?-:$@'="...() s    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    アイウエオカキクケ
GHIJKLMNOPQRSTUVWXYZ          0123456789    アイウエオカキクケコサシスセソタ...    £.((+|&!¥*);^-/-,%_)?-:$@'="...() s    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    アイウエオカキクケコ
HIJKLMNOPQRSTUVWXYZ           0123456789    アイウエオカキクケコサシスセソタ...    £.((+|&!¥*);^-/-,%_)?-:$@'="...() s    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    アイウエオカキクケコサ
IJKLMNOPQRSTUVWXYZ            0123456789    アイウエオカキクケコサシスセソタ...    £.((+|&!¥*);^-/-,%_)?-:$@'="...() s    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    アイウエオカキクケコサシ
```

```
JKLMNOPQRSTUVWXYZ     0123456789    abcdefghijklmnopqrstuvwxyz    [.((+!&]$*);^-/;,%_)?:;$@'="]"()\    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    abcdefghijklm
KLMNOPQRSTUVWXYZ      0123456789    abcdefghijklmnopqrstuvwxyz    [.((+!&]$*);^-/;,%_)?:;$@'="]"()\    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    abcdefghijklmno
LMNOPQRSTUVWXYZ       0123456789    abcdefghijklmnopqrstuvwxyz    [.((+!&]$*);^-/;,%_)?:;$@'="]"()\    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    abcdefghijklmnop
MNOPQRSTUVWXYZ        0123456789    abcdefghijklmnopqrstuvwxyz    [.((+!&]$*);^-/;,%_)?:;$@'="]"()\    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    abcdefghijklmnopqr
NOPQRSTUVWXYZ         0123456789    abcdefghijklmnopqrstuvwxyz    [.((+!&]$*);^-/;,%_)?:;$@'="]"()\    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    abcdefghijklmnopqrst
OPQRSTUVWXYZ          0123456789    abcdefghijklmnopqrstuvwxyz    [.((+!&]$*);^-/;,%_)?:;$@'="]"()\    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    abcdefghijklmnopqrstu
PQRSTUVWXYZ           0123456789    abcdefghijklmnopqrstuvwxyz    [.((+!&]$*);^-/;,%_)?:;$@'="]"()\    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    abcdefghijklmnopqrstuv
QRSTUVWXYZ            0123456789    abcdefghijklmnopqrstuvwxyz    [.((+!&]$*);^-/;,%_)?:;$@'="]"()\    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    abcdefghijklmnopqrstuv
RSTUVWXYZ             0123456789    abcdefghijklmnopqrstuvwxyz    [.((+!&]$*);^-/;,%_)?:;$@'="]"()\    ABCDEFGHIJKLMNOPQRSTUVWXYZ    0123456789    abcdefghijklmnopqrstuvw
```

Note: This test pattern appears only on IBM 5224 and IBM 5225 printers.

Printer test pattern

126

55. Observe this display.

If you have more than one printer (maximum of eight on your system), press the number 1, then press the Enter key. Repeat steps 52 through 54 for each printer. If you have checked out all the printers on your system, press the number 2, press the Enter key, read the progress check block, and continue to the next step.

```
Test complete.
   Options are
      1. Restart
      2. Exit
Select option:    _  Press ENTER                        54-78
```

PROGRESS CHECK

1. You should have keyed a 2 and a Z at each keyboard on your system.
2. You should have keyed the characters ABC...XYZ and 012...789 at each keyboard on your system.
3. You should have moved the verification diskette into and out of every diskette drive, and moved the blank 2D diskette into and out of every 2D diskette drive on your system.
4. You should have run a test pattern for each printer on your system.

56. Continue with the following steps if you have a communications adapter on your system.

If you do not know if you have a communications adapter, contact the person who did the planning for your system or the manager of the area where your system is located. You will also need to know what type of communications adapter you have for step 60, and what kind of modem you have for step 62.

If you do not have the communications adapter, go to step 78.

57. Turn the keylock to the left (counterclockwise).

The keylock is a feature that may be on IBM machines 5285 or 5288. Two keys are shipped with the machine that has the Keylock feature. You will find these keys in the envelope in which you found this manual. Use the key that permits you to turn the lock to the left.

58. Move to keyboard 0 and do the following:
   a. Make sure that the verification diskette is in diskette drive 4000.
   b. Key TCOM after the words Program name.
   c. Press the Field+ or Field Exit key.
   d. Key 4000 after the words Device address.
   e. Press the Enter key.

59. Observe this display.

```
Select Feature type

   Options are:

      1.  EIA           3.  Integrated Modem

      2.  DDSA

Select option:    _  Press ENTER                    57-01
```

60. Determine the type of communications adapter that you have on your system.

If you do not know what type of communications adapter you have, contact the person who did the planning for your system or the manager of the area where your system is located.

61. Press the number corresponding to the feature type, then press the Enter key.

If you pressed the number 1 for the EIA feature type, go to the next step. If you pressed the number 2 for the DDSA feature type, go to step 70. If you pressed the number 3 for the integrated modem feature type, go to step 74.

62. Observe this display, then press the Enter key.
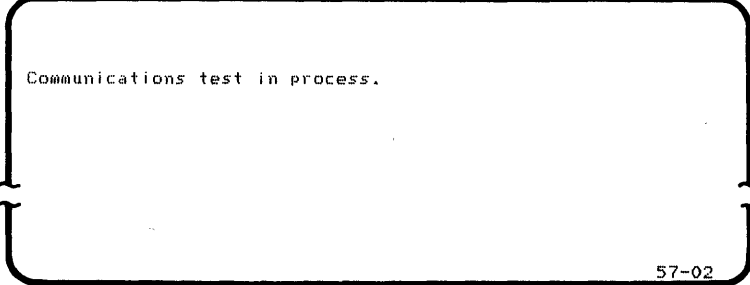
For this system checkout procedure, use the automatically selected option of 2. This cable should not be connected to anything other than the 5285 or 5288. Connection of this cable to a modem is discussed in Section 9.

```
Is the Communications Cable attached to

an IBM modem?

  Options are:

    1.  YES          2.  NO

Select option:   2  Press ENTER                    57-06
```

63. Observe this display.

This display will appear for approximately 20 seconds.

```
Communications test in process.



                                                              57-02
```

I1. If the top line of the display starts blinking, press the Reset or Error Reset key. The following display will appear:

```
Test Terminated.
   Options are:
     1.  RESTART
     2.  EXIT
Select option:    2  Press ENTER                     57-79
```

I2. Press the number 1, then press the Enter key. Repeat step 59 through step 63. If the top line of the display starts blinking again, record the four-digit error code number for reference and call your service representative.

64. Observe this display.

For this system checkout procedure, *always* use the automatically
selected option of 2.

```
Does the Communications Cable have

a 'TEST/OPERATE' switch?  (See manual)

  Options are:

    1.  YES          2.  NO

Select option:    2  Press ENTER                 57-03
```

65. Press the Enter key.

66. Observe this display. Do not press the Enter key.

```
Prepare the Wrap Connector.  (see Manual.)




Press ENTER to continue.                         57-09
```

67. Do the following:

    a. Make sure the wrap connector is on the end of the communications cable.

Cable and Connector

Wrap Connector

    b. If the end of the cable has a Test/Operate switch, set it to the operate position.

Test/Operate Switch
(Operate Position)

Wrap Connector
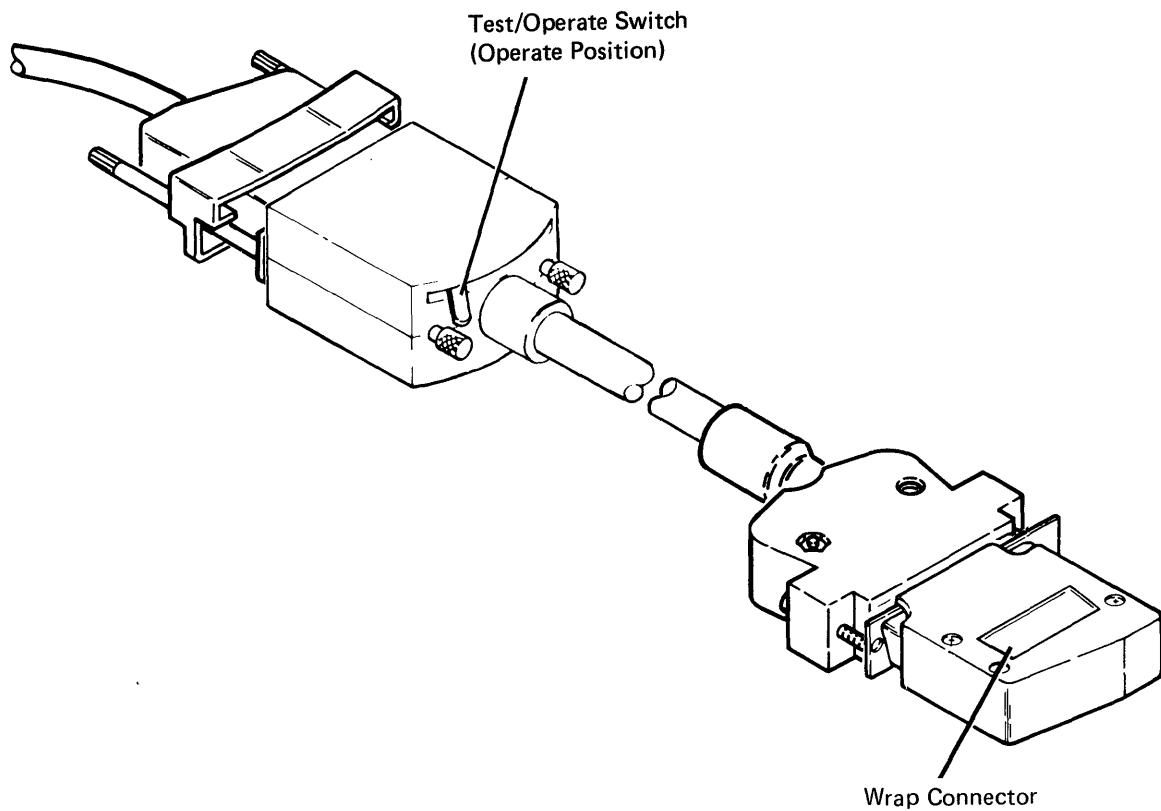
    c. Press the Enter key.

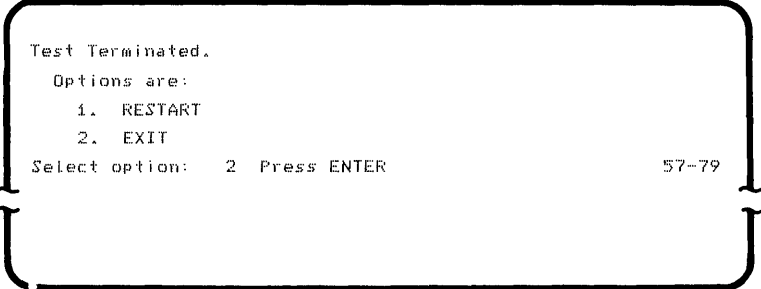## 68. Observe this display.

This display will appear for approximately 10 seconds.
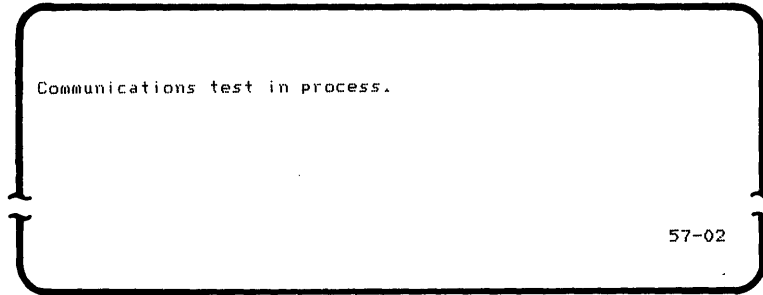
```
Communications test in process.



                                                              57-02
```

J1. If the top line of the display starts blinking, press the Reset or Error Reset key. The following display will appear:

```
Test Terminated.
  Options are:
    1.  RESTART
    2.  EXIT
Select option:   2  Press ENTER                       57-79
```
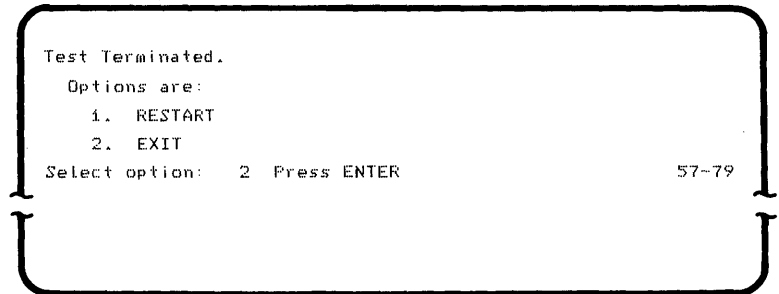
J2. Press the number 1, then press the Enter key.
Repeat step 59 through 68. If the top line of the display starts blinking again, record the four-digit error code number for reference and call your service representative.

69. Observe this display, then press the Enter key.

For this system checkout procedure, use the automatically selected option
of 2. Go to step 77.

```
Test complete.
  Options are
    1. Restart
    2. Exit
Select option:   2  Press ENTER                    57-78
```
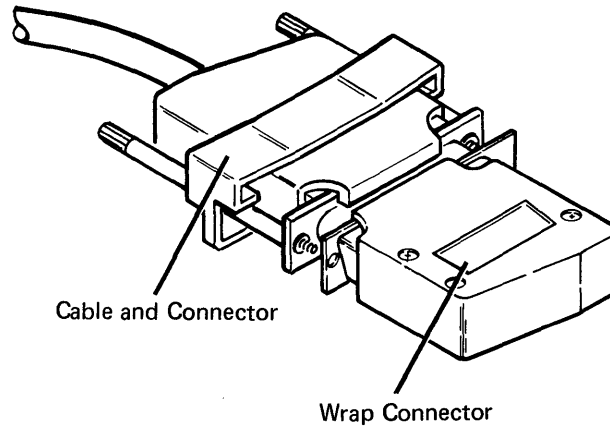
70. Observe this display. Do not press the Enter key.

```
Prepare the Wrap Connector.  (see Manual.)




Press ENTER to continue.                           57-09
```

71. Do the following:
**a. Make sure the wrap connector is on the end of the
communications cable.**

Cable and Connector

Wrap Connector

b. Press the Enter key.

72. Observe this display.
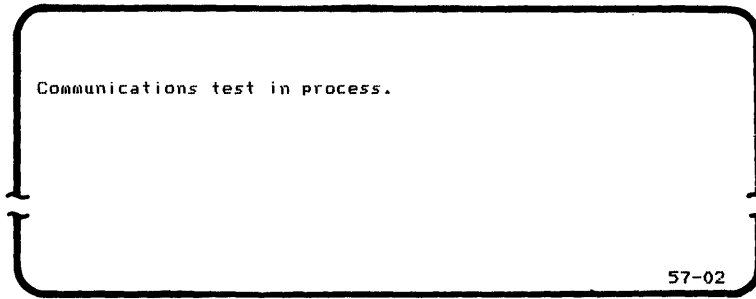
This display will appear for approximately 20 seconds.

```
Communications test in process.



                                                        57-02
```
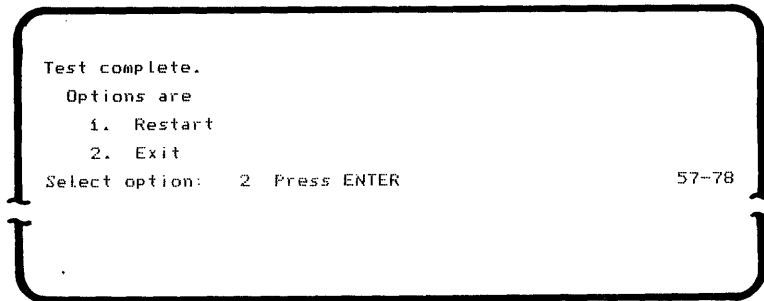
K1. If the top line of the display starts blinking, press the Reset or Error Reset key. The following display will appear:

```
Test Terminated.
   Options are:
      1. RESTART
      2. EXIT
Select option:    2   Press ENTER                      57-79
```
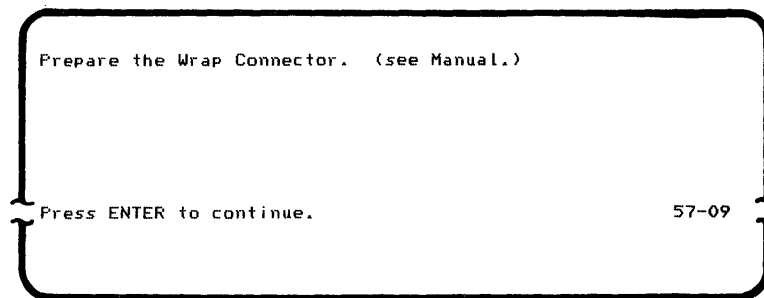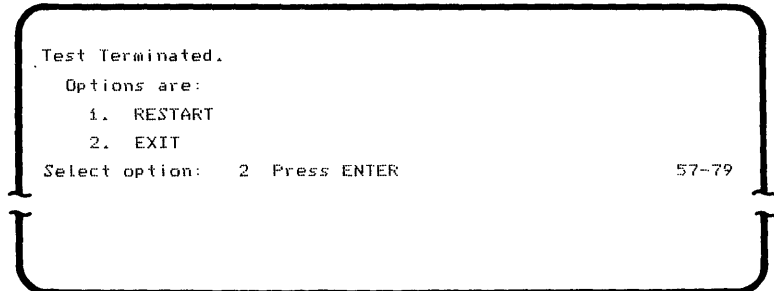
K2. Press the number 1, then press the Enter key. Repeat step 59 through 73. If the top line of the display starts blinking again, record the four-digit error code number for reference and call your service representative.

73. Observe this display, then press the Enter key.

For this system checkout procedure, use the automatically selected option
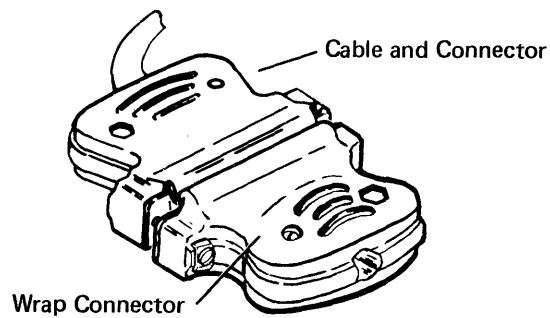of 2. Go to step 77.

```
Test complete.
   Options are
      1.  Restart
      2.  Exit
Select option:    2  Press ENTER                        57-78
```

74. Observe this display.

This display will appear for approximately 20 seconds.

```
Communications test in process.


                                                        57-02
```

L1.   If the top line of the display starts blinking, press the
Reset or Error Reset key. The following display will
appear:

```
Test Terminated.
   Options are:
      1.  RESTART
      2.  EXIT
Select option:    2  Press ENTER                        57-79
```

L2.   Press the number 1, then press the Enter key.
Repeat steps 59 through 74. If the top line of the
display starts blinking again, record the four-digit error
code number for reference and call your service
representative.

75. Observe this display, then press the Enter key.

For this system checkout procedure, *always* use the automatically selected option of 2.

```
Does your communications have
switched network backup?
  Options are
    1. Yes          2. No
Select option:   2  Press ENTER                    57-07
```

76. Observe this display, then press the Enter key.

For this system checkout procedure, use the automatically selected option of 2.

```
Test complete.
  Options are
    1. Restart
    2. Exit
Select option:   2  Press ENTER                    57-78
```

77. Read the progress check block and go to the next step.

PROGRESS CHECK

1. You should have keyed a 2 and a Z at each keyboard on your system.
2. You should have keyed the characters ABC...XYZ and 012...789 at each keyboard on your system.
3. You should have moved the verification diskette into and out of every diskette drive, and moved the blank diskette 2D into and out of every diskette 2D drive on your system.
4. If your system has (a) printer(s), you should have observed each printer print a test pattern.
5. If your system has a communications adapter, you should nave observed the test completed display for the communications adapter.

78. Continue with the following steps if you have magnetic stripe readers on your system.

If you do not have magnetic stripe readers, go to step 90.

79. Ensure that the verification diskette is in diskette drive 4000.

80. Move to a data station that has a Magnetic Stripe Reader attached and do the following:
   a. Key TKBD after the words Program name.
   b. Press the Field+ or Field Exit key.
   c. Key 4000 after the words Device address.
   d. Press the Enter key.

81. Observe this display.

```
Workstation test.

   Options are

     1.  Keyboard

     2.  Magnetic stripe reader

Select option:    _  Press ENTER                    52-01
```

82. Press the number 2, then press the Enter key.

Observe this display.

```
Magnetic stripe reader test


Run card through reader


                                                     52-04
```

83. **Test the magnetic stripe reader by doing the following:**

a. Obtain the magnetic stripe reader test card (part 8331402) from the envelope in which you found this manual.

Magnetic Stripe Reader
Test Card
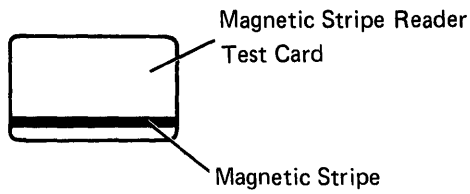
Magnetic Stripe

b. **Position the magnetic stripe reader so that the wide end of the slot is to your right.**

Magnetic Stripe Reader
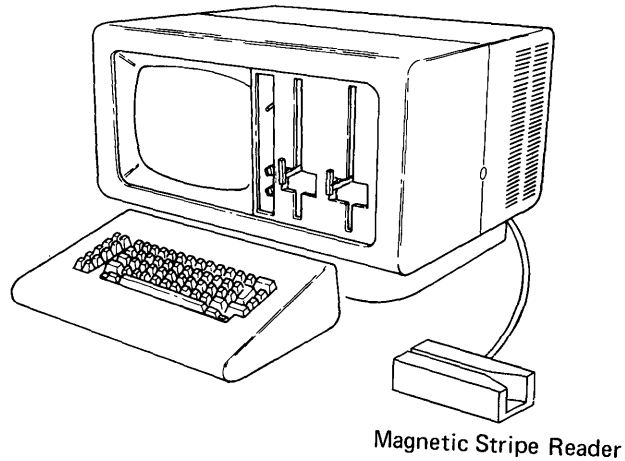
c. **Place the test card so that the magnetic stripe is at the bottom and facing you.**

Test Card
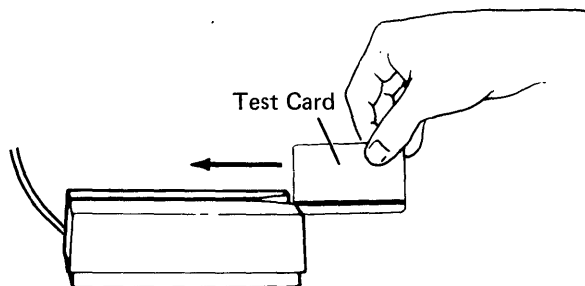
d. **Run the card through the reader from right to left, with the bottom of the card at the bottom of the slot.**

84. Observe this display.

```
┌─────────────────────────────────────────────────────┐
│                                                       │
│  Magnetic stripe reader tested                        │
│                                                       │
│                                                       │
│  Stripe was read correctly.                           │
│                                                       │
│                                                       │
│                Press ENTER                    52-05   │
│                                                       │
└─────────────────────────────────────────────────────┘
```

85. If the display in step 84 appears, go to step 86.

If the display in step 84 does not appear, go to step M1.

> **M1.** If the following display appears, repeat the test by running the test card through the magnetic stripe reader and checking for the display in step 84. If the display in step 84 does not appear, call your service representative.

```
┌─────────────────────────────────────────────────────┐
│                                                       │
│  Magnetic stripe reader tested                        │
│  Stripe reader error                                  │
│                                                       │
│                                                       │
│  Retry badge or press ENTER to terminate.     52-06   │
│                                                       │
└─────────────────────────────────────────────────────┘
```

> **M2.** If the following display appears, press the Enter key and repeat the test by running the test card through the magnetic stripe reader and checking for the display in step 84. If the display in step 84 does not appear, call your service representative.

```
┌─────────────────────────────────────────────────────┐
│                                                       │
│  Magnetic stripe reader tested                        │
│  Badge data miscompare                                │
│                                                       │
│                                                       │
│                Press ENTER                    52-07   │
│                                                       │
└─────────────────────────────────────────────────────┘
```

86. Press the Enter key and observe this display.

```
Test complete.

   Options are

     1.  Restart

     2.  Exit

 Select option:    _  Press ENTER                    52-78
```

87. Press the number 2, then press the Enter key.
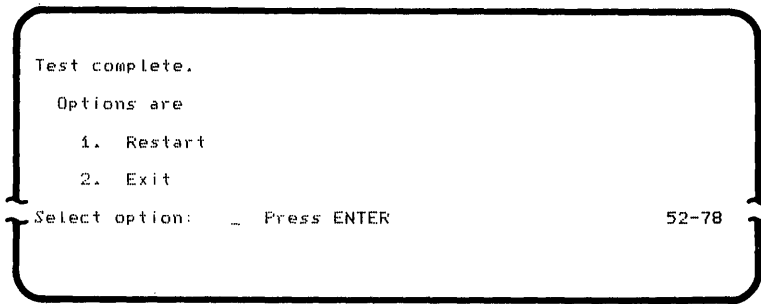
The program load screen will be displayed.

88. Make a check mark in the box ☑ below indicating completion of step 81 through step 87 for this magnetic stripe reader.

Magnetic Stripe Reader (Keyboard)	Steps 81–87 Completed
0	☐
1	☐
2	☐
3	☐

You can have a maximum of four magnetic stripe readers on your system.

89. Move to the next higher numbered keyboard/data station that has a magnetic stripe reader attached and do the following:

  a. Make sure that the verification diskette is in diskette drive 4000.
  b. Key TKBD after the words Program name.
  c. Press the Field+ or Field Exit key.
  d. Key 4000 after the words Device address.
  e. Press the Enter key.
  f. Go to step 81.

When you have completed step 81 through step 89 for each magnetic stripe reader on your system, read the progress check block and continue to the next step.

PROGRESS CHECK

1. You should have keyed a 2 and a Z at each keyboard on your system.
2. You should have keyed the characters ABC...XYZ and 012...789 at each keyboard on your system.
3. You should have moved the verification diskette into and out of every diskette drive, and moved the blank 2D diskette into and out of every 2D diskette drive on your system.
4. You should have run a test pattern for each printer on your system.
5. If your system has a communication adapter, you should have observed the test completed display.
6. If your system has a magnetic stripe reader(s), you should have run the magnetic stripe test card through each magnetic stripe reader.

90. **If you have the second application program microprocessor on your system, continue with the following steps.**
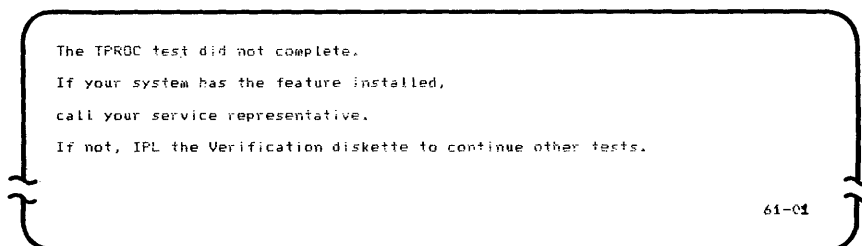
If you do not know if you have the second application program microprocessor, contact the person who did the planning for your system or the manager of the area where your system is located.

If you do not have the second application program microprocessor, go to step 94.

91. **Move to keyboard 0 and do the following:**

a. **Make sure that the verification diskette is in diskette drive 4000.**
b. **Key TPROC after the words Program name.**
c. **Press the Field+ or Field Exit key.**
d. **Key 4000 after the words Device address.**
e. **Press the Enter key.**

N1. If the second application program microprocessor cannot function at all, the following prompt appears:
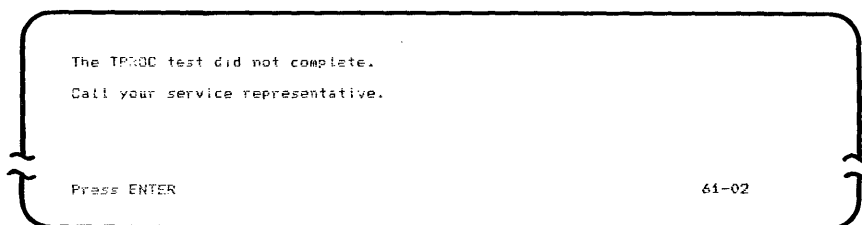
```
The TPROC test did not complete.
If your system has the feature installed,
call your service representative.
If not, IPL the Verification diskette to continue other tests.

                                                            61-01
```

N2. If this screen appears and you have the second application program microprocessor on your system, call your service representative. If this screen appears and you do not have the second application program microprocessor on your system, go to step 94.

N3. If the second application program microprocessor fails in any other way, the following prompt appears:

```
The TPROC test did not complete.
Call your service representative.



Press ENTER                                   61-02
```

N4. Call your service representative. Press the Enter key.

N5. After you press the Enter key the following prompt will
be on your display:

```
Test terminated.
  Options are
    1. Restart
    2. Exit
Select option:        2 Press ENTER              (1-78
```

N6. Press number 1 to restart the test.
Press number 2 to return to the program load screen.

92. Observe this display.

```
Test complete.
  Options are
    1. Restart
    2. Exit
Select option:        2 Press ENTER              61-79
```

93. Press the number 2, then press the Enter key.

The program load screen will be displayed. Read the progress check.block and
continue to the next step.

PROGRESS CHECK

1. You should have keyed a 2 and a Z at each keyboard on your system.
2. You should have keyed the characters ABC...XYZ and 012...789 at each keyboard on your system.
3. You should have moved the verification diskette into and out of every diskette drive, and moved the blank 2D diskette into and out of every 2D diskette drive on your system.
4. You should have run a test pattern for each printer on your system.
5. If your system has a communication adapter, you should have observed the test completed display.
6. If your system has a magnetic stripe reader(s), you should have run the magnetic stripe test card through each magnetic stripe reader.
7. If your system has a second application program microprocessor, you should have observed the test completed display.

94. You have completed the system checkout procedure for your IBM 5280 Distributed Data System.
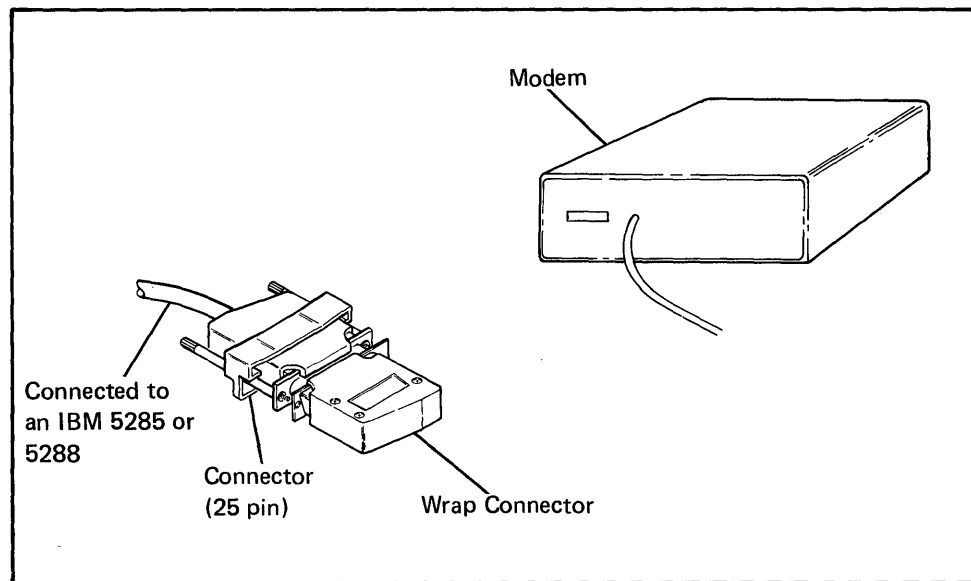
Place the verification diskette and blank 2D diskette (if used) in their protective envelopes and insert them in the holders provided in the IBM binder containing the *IBM 5280 Machine Verification Manual.* Place the magnetic stripe reader test card (if used) in the same holder with the verification diskette. If you have a communication adapter on your system, go to Section 9 of this manual. If you do not plan to use the system for any other programs, set the Power switches of all machines in your system to O (Off). The next step is to start the system using the IBM-supplied IPL (Initial Program Load) diskette and run the system configuration program. See the IBM 5280 System Control Program Reference/Operation Manual, GC21-7824 for this procedure.

Before you begin this section, the *Verification Procedure* in Section 8 of this manual should have been completed.
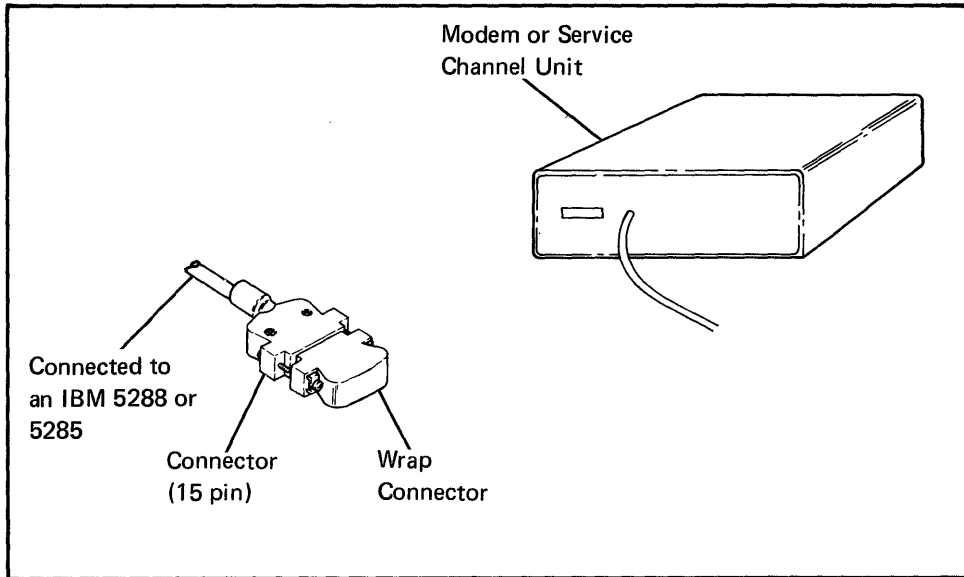
1. **Set the Power switch on the IBM 5288 or 5285 to the O (Off) position.**

2. **Connect the communications cable that extends from the back of the controller (5288 or 5285) as follows:**

    a. Determine the communications type (first) by looking at the end of the communications cable and (second) by looking at the following illustrations.

    b. Once you have determined the communications type, go to the appropriate step.
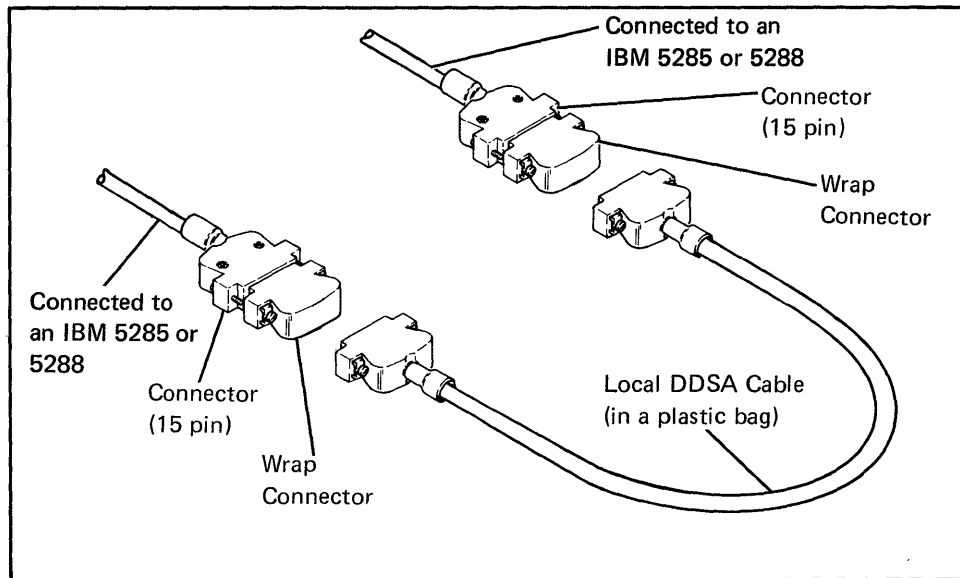
EIA Communications Line

If you have the above communications type, go to step 3.
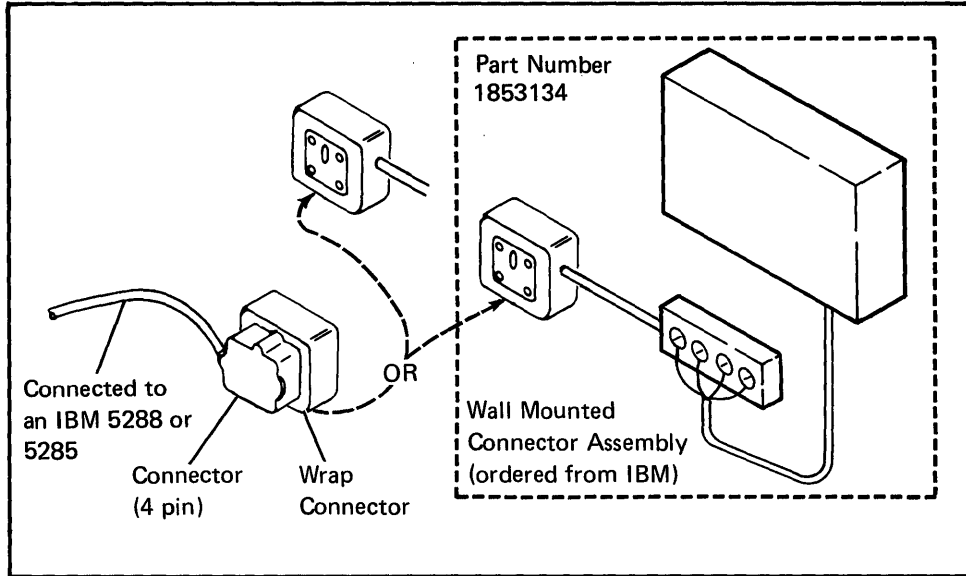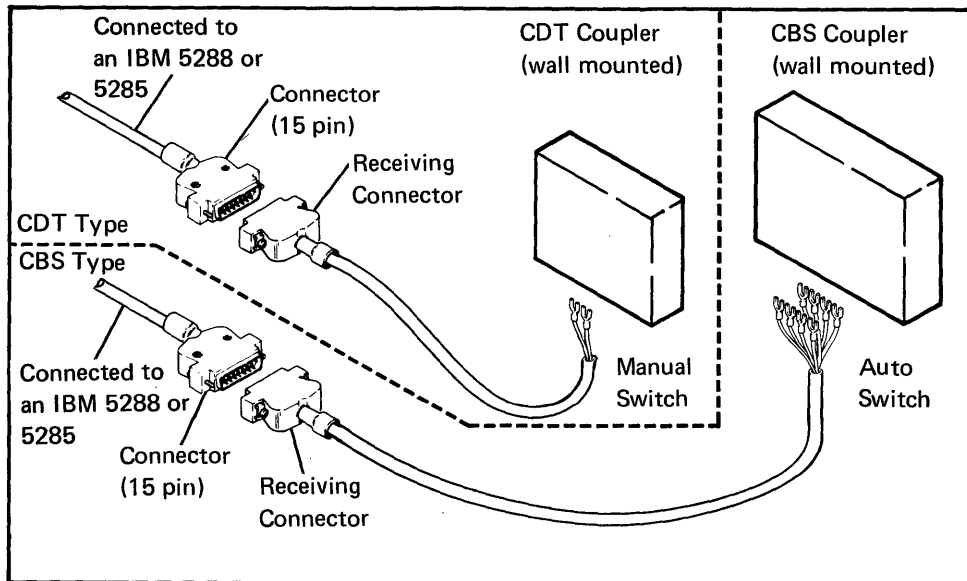
DDSA Communications line

Modem or Service Channel Unit

Connected to an IBM 5288 or 5285

Connector (15 pin)

Wrap Connector

If you have the above communications type, go to step 3.

Local DDSA Communications Line

Connected to an IBM 5285 or 5288

Connector (15 pin)

Wrap Connector

Connected to an IBM 5285 or 5288

Connector (15 pin)

Wrap Connector

Local DDSA Cable (in a plastic bag)

If you have the above communications type, go to step 4.

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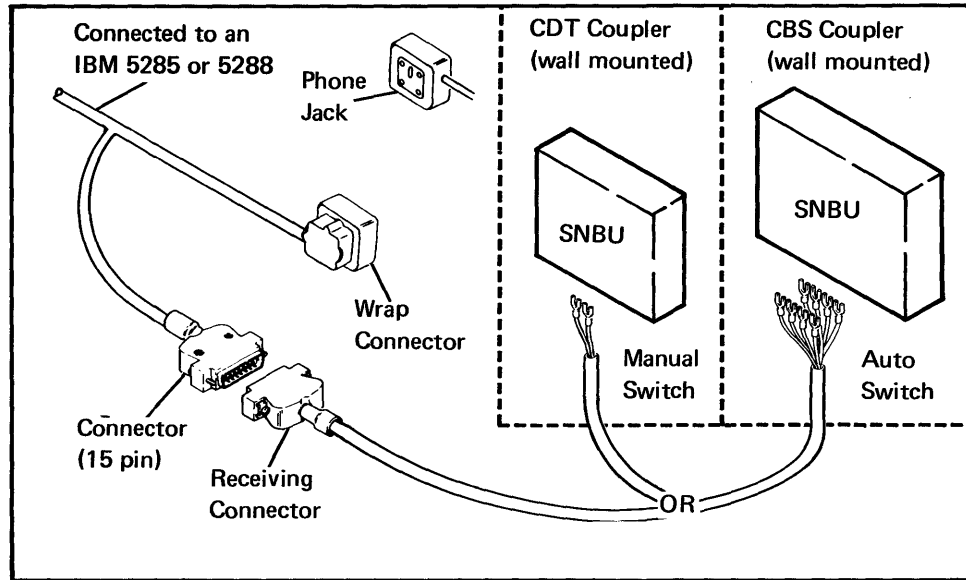**1200 bps Integrated Nonswitched (38LS) Communications Line**

If you have the above communications type, go to step 5.

1200 bps Integrated Switched Communications Line

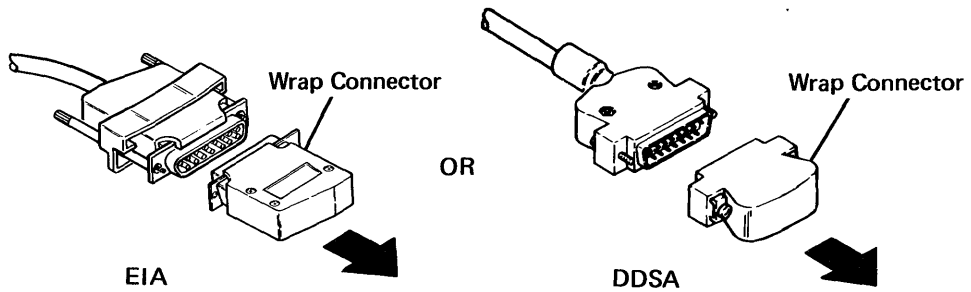**If you have the above communications type, go to step 6.**

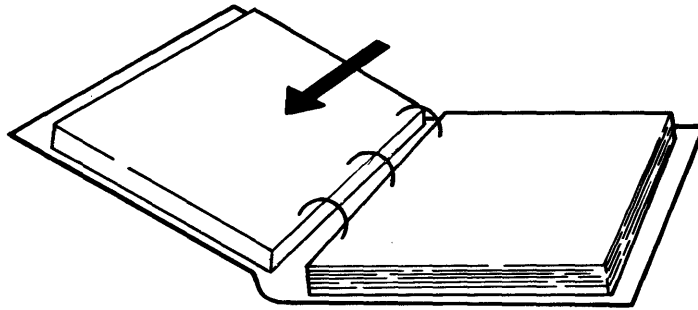**1200 bps Integrated Nonswitched/Switched Communications Line**

If you have the above communications type, go to step 7.

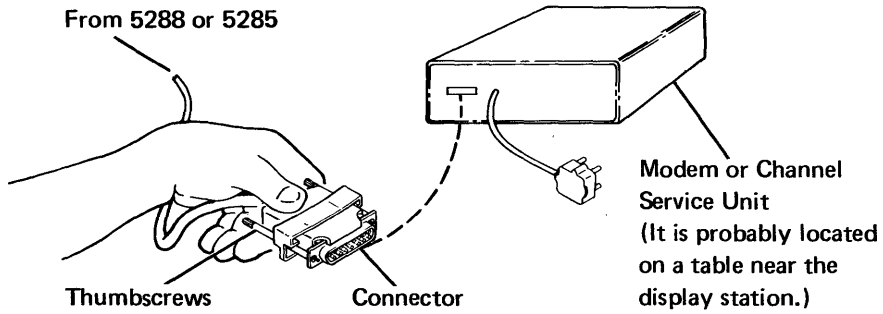3. **You have the EIA or DDSA communications line. Do the following:**

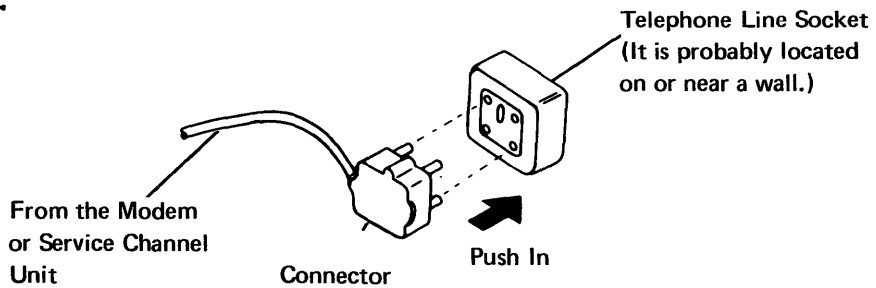   a. **Remove the wrap connector by pulling straight out.**

b. Put the wrap connector in the protective recess area of the machine verification binder.

c. Push the EIA or DDSA connector into the socket on the modem or channel service unit and turn the thumbscrews until tight.

From 5288 or 5285

Thumbscrews   Connector

Modem or Channel
Service Unit
(It is probably located
on a table near the
display station.)

d. Push the connector into the telephone line socket.

Telephone Line Socket
(It is probably located
on or near a wall.)

From the Modem
or Service Channel
Unit   Connector   Push In

Note: The telephone line socket should have been connected prior to setup. If it has not been connected, contact your supervisor, who will notify the person familair with the local electrical codes and responsible for telephone line connection.
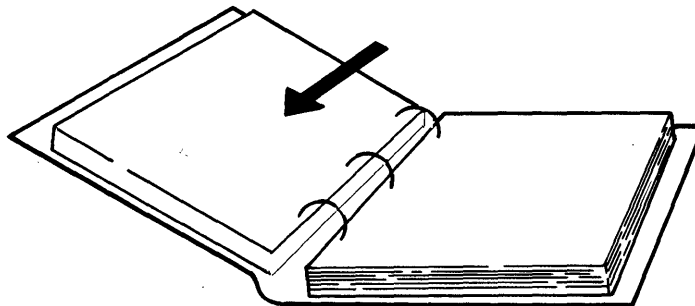
e. Notify your supervisor that you have completed setup.

4. **You have the local DDSA communications line. Do the following:**

a. **Remove the wrap connector by pulling straight out.**
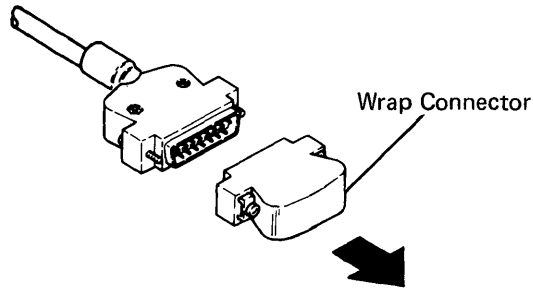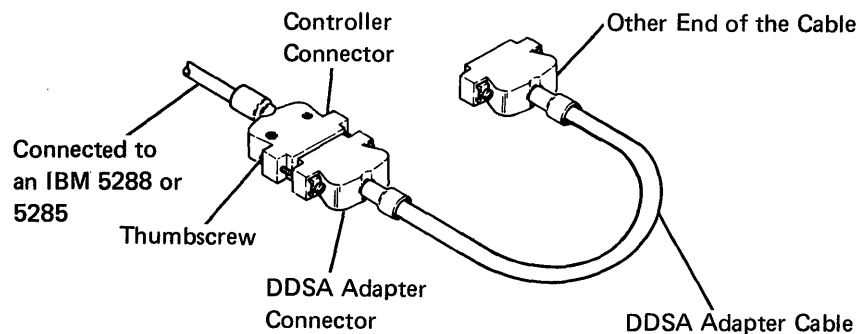
Wrap Connector

b. **Put the wrap connector in the protective recess area of the machine verification binder.**
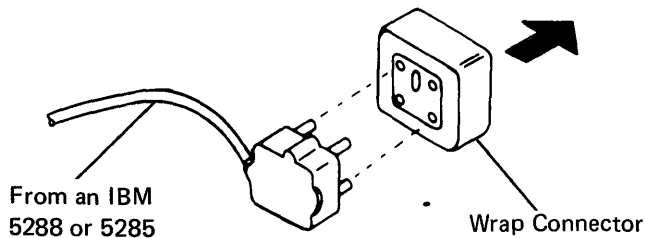
c. **Push the controller connector into the DDSA adapter connector and turn the thumbscrews until tight.**

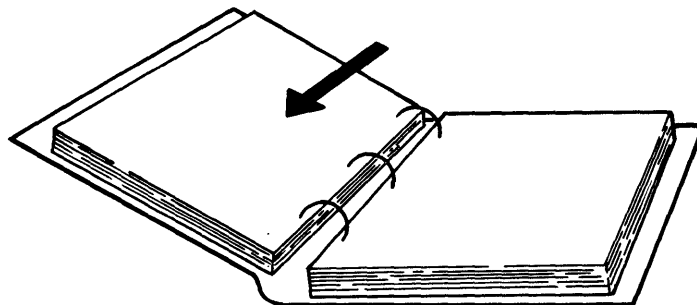The other end of the DDSA adapter cable has been or will be connected using another IBM 5280 customer setup manual.
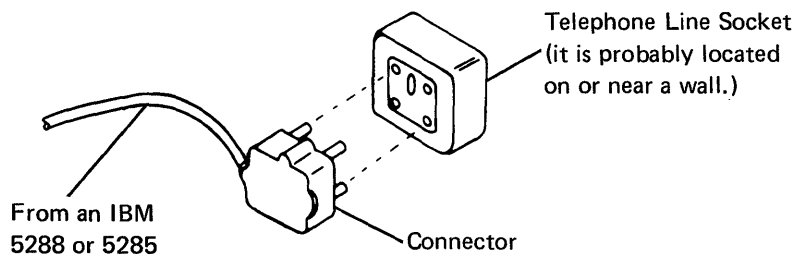
Controller
Connector

Other End of the Cable

Connected to
an IBM 5288 or
5285

Thumbscrew

DDSA Adapter
Connector

DDSA Adapter Cable

d.   Notify your supervisor that you have completed setup.

5.   **You have the 1200 bps integrated nonswitched (38LS) communications line. Do the following:**

   a. Remove the wrap connector by pulling straight out.

From an IBM
5288 or 5285

Wrap Connector

   b. Put the wrap connector in the protective recess area of the machine verification binder.

   c. Push the connector into the telephone line socket.

Telephone Line Socket
(it is probably located
on or near a wall.)

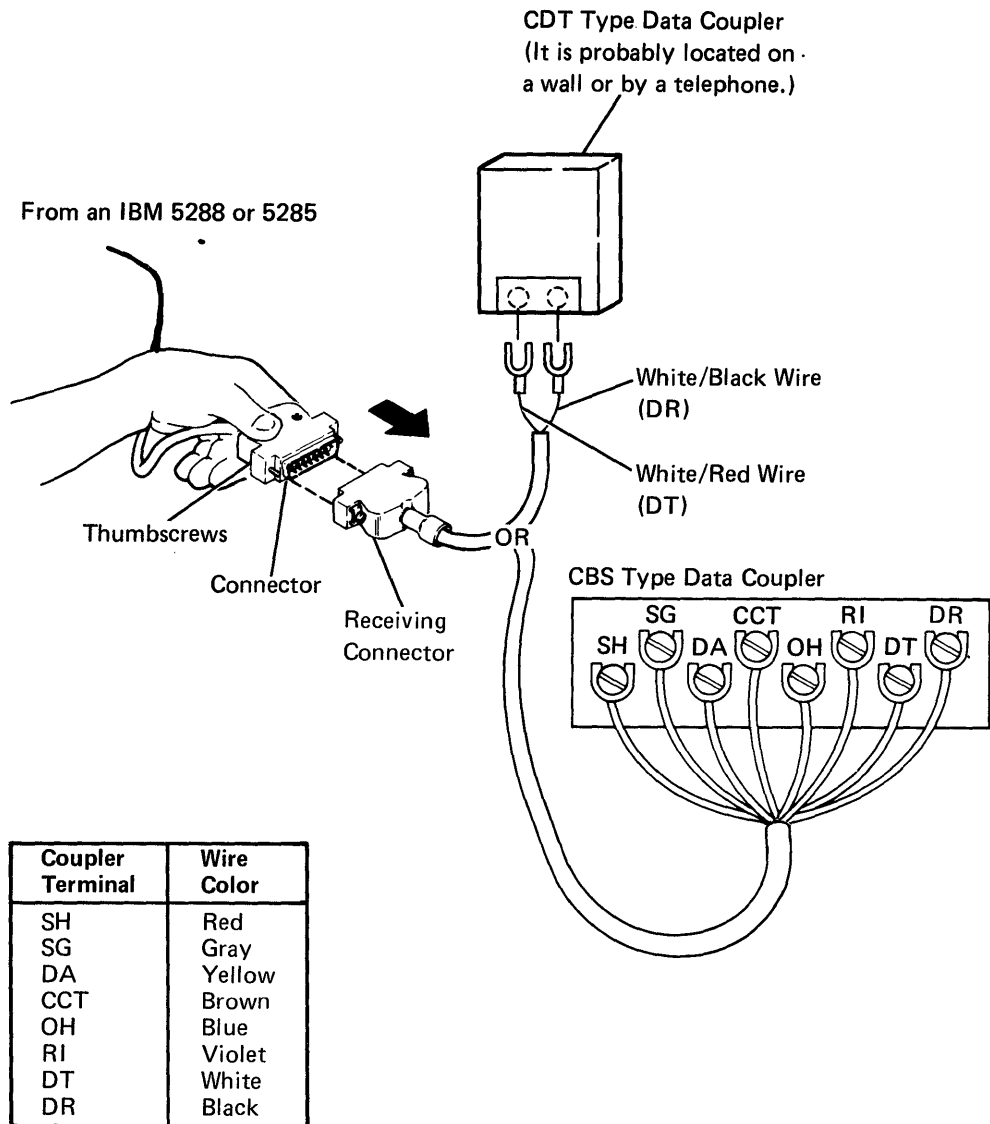From an IBM
5288 or 5285

Connector

   Note: The telephone line socket should have been connected prior to setup. If it has not been, contact your supervisor who will notify the person familiar with the local electrical codes and responsible for telephone line connection.

   d. Notify your supervisor that you have completed setup.

6. You have the 1200 bps integrated switched CDT or CBS type communications line. Do the following:

a. **Push the connector into the receiving connector and turn the thumbscrews until tight.**

CDT Type Data Coupler
(It is probably located on ·
a wall or by a telephone.)

From an IBM 5288 or 5285

White/Black Wire
(DR)

White/Red Wire
(DT)

Thumbscrews

Connector

Receiving
Connector

OR

CBS Type Data Coupler

| SG | CCT | RI | DR |
| SH | DA | OH | DT |

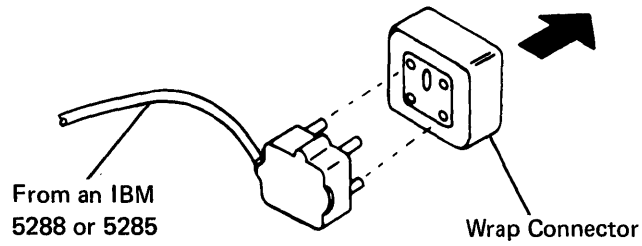| Coupler Terminal	Wire Color
SH	Red
SG	Gray
DA	Yellow
CCT	Brown
OH	Blue
RI	Violet
DT	White
DR	Black

Note: The data coupler (two or eight wires) should have been connected prior to setup. If it has not been, contact your supervisor who will notify the person familiar with the local electrical codes and responsible for telephone line connection.

b. **Notify your supervisor that you have completed setup.**

7. You have the 1200 bps integrated nonswitched/switched communications line. Do the following:

a. Remove the wrap connector by pulling straight out.

From an IBM
5288 or 5285

Wrap Connector

b. Put the wrap connector in the protective recess area of the machine verification binder.

c. Push the connector into the telephone line socket.

Telephone Line Socket
(it is probably located
on or near a wall.)

From an IBM
5288 or 5285
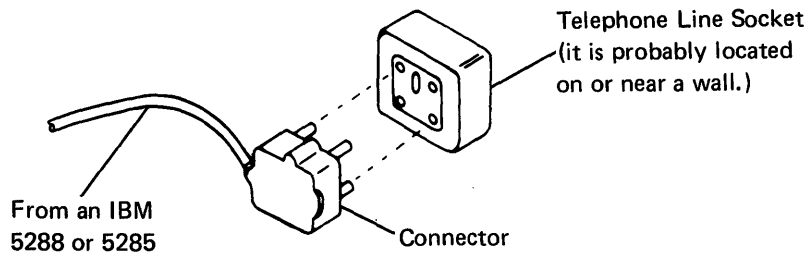
Connector

Note: The telephone line socket should have been connected prior to setup. If it has not been, contact your supervisor who will notify the person familiar with the local electrical codes and responsible for telephone line connection.
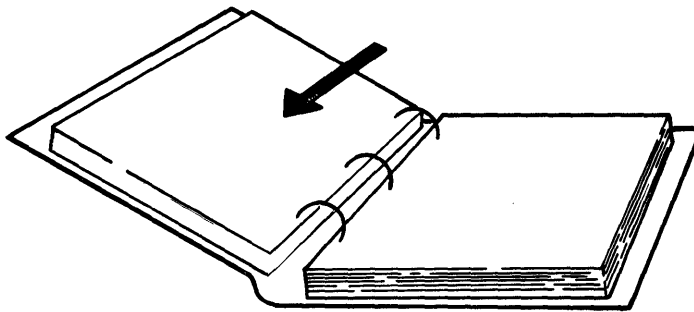
d. Push the connector into the receiving connector and turn the thumbscrews until tight.

Coupler Terminal	Wire Color
SH	Red
SG	Gray
DA	Yellow
CCT	Brown
OH	Blue
RI	Violet
DT	White
DR	Black
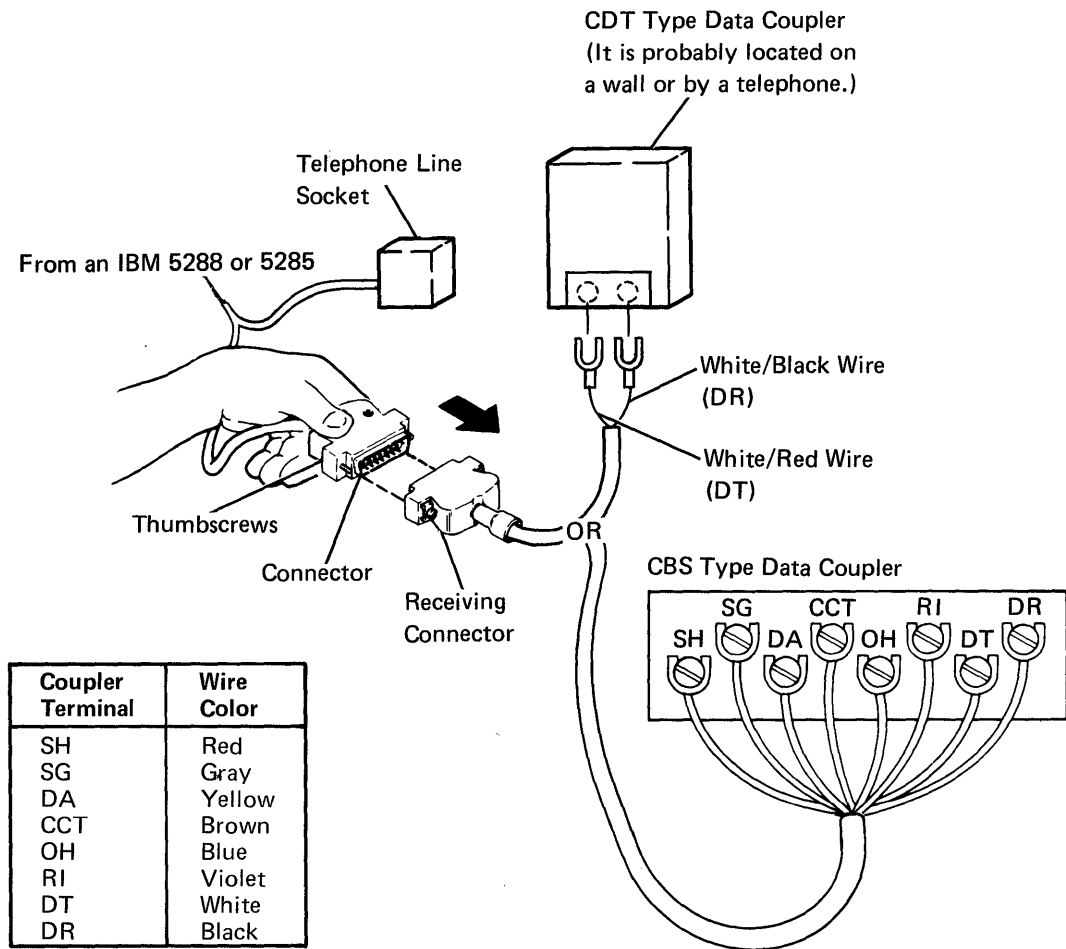
Note: The CDT type or CBS data coupler should have been connected prior to setup. If it has not been, contact your supervisor who will notify the person familiar with the local electrical codes and responsible for telephone line connection.

e. Notify your supervisor that you have completed setup.

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As your installation grows, it may become necessary to disconnect and relocate your system. Many of the planning and site preparation activities planned for the setup of your system should be reviewed in the *IBM Planning and Site Preparation Guide*, GA21-9351. If relocating your system requires packing materials, contact your marketing representative.

Use the following procedure for each device:

1. **Set the Power switch to the Off (O) position.**

2. **Unplug the power cord plug.**

3. **Remove all diskettes and leave the diskette locking lever open.**

4. **If you have the Keylock feature, position the key to the locked position and remove the keys.**

5. **On the IBM 5282 and the IBM 5286, remove the mirrors from each side of the data station and carefully wrap each one; then tape the mirrors to the top of the data station.**

6. **If you have magnetic stripe readers, wrap and tape them to the data station.**

7. **Identify each cable:**
   a. Look at the cable to be sure that the label is still attached to it. If not, make a label and include the following information for each cable:

   ```
   Aux Data Station _____
   Location _____
   Socket or Prog Unit _____
   Device Address _____
   ```

   b. Coil each cable and wrap with tape.

   Caution: The cables and cable connectors are durable, but can be damaged if stepped on or thrown.

8. Disconnect each cable.

a. To disconnect the keyboard, data station, communications, and diskette drive cables, push the plastic retainers in while pulling on the cable connector.
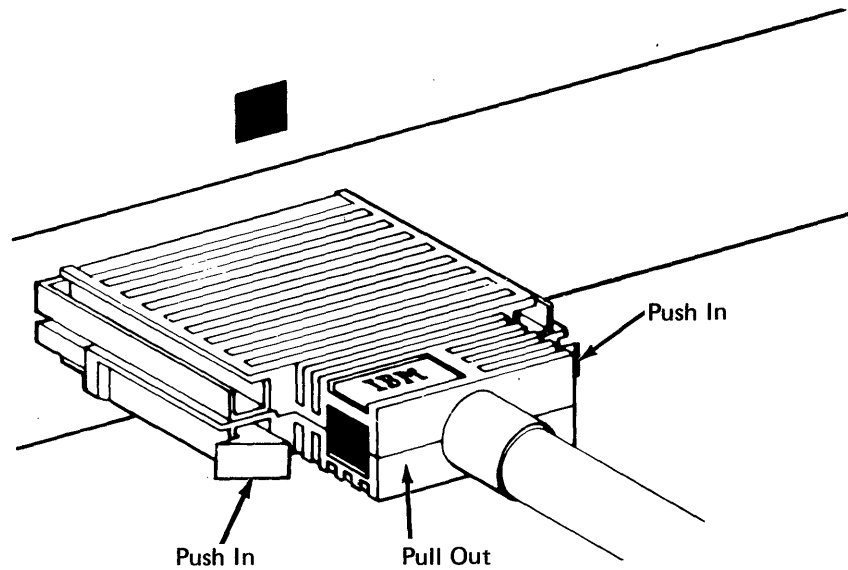
Note: Make sure that each keyboard is properly labeled or relabeled with the correct keyboard number.

b. To disconnect the printer cable, turn the retaining ring counter clockwise until it's loose; then pull the cable out.

c. If you have communications, disconnect the communications line.

READER'S COMMENT FORM

GA21-9365-2

IBM 5280
User's Setup Procedure

Your comments assist us in improving the usefulness of our publications; they are an
important part of the input used in preparing updates to the publications. IBM may
use and distribute any of the information you supply in any way it believes appro-
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use the information you supply.

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for additional publications; this only delays the response. Instead, direct your
inquiries or requests to your IBM representative or the IBM branch office serving
your locality.

Corrections or clarifications needed:

Page   Comment

Please indicate your name and address in the space below if you wish a reply.

_____

_____

_____

Thank you for your cooperation. No postage stamp necessary if mailed in the U.S.A.
(Elsewhere, an IBM office or representative will be happy to forward your comments.)

Cut or Fold Along Line

Reader's Comment Form

Fold and tape   **Please Do Not Staple**   Fold and tape

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS   PERMIT NO. 40   ARMONK, NEW YORK

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IBM 5280
User's Setup
Procedures