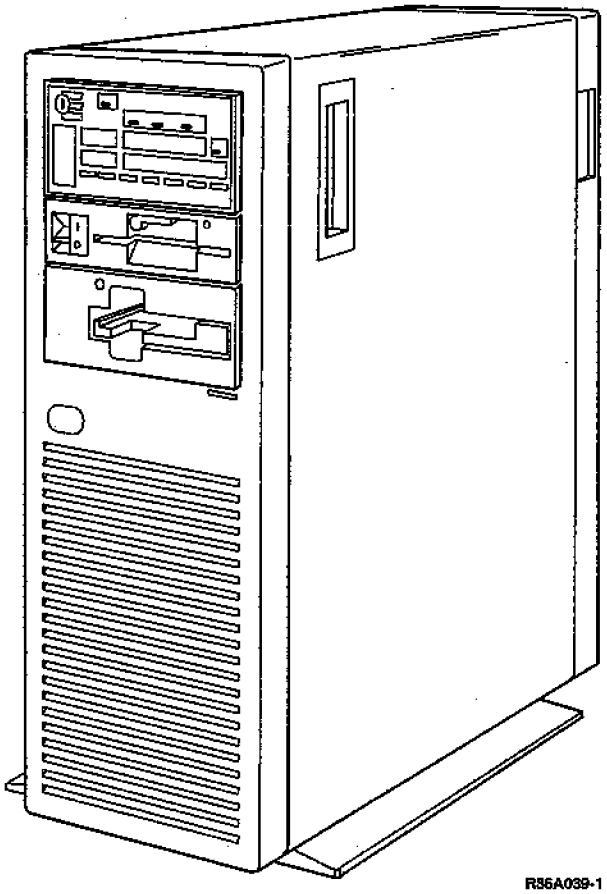
IBM System/36

System Problem Determination Guide—5363

Program Number 5727-SS6



File Number
S36-37

Order Number
SC21-9684-0

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Changes will be made periodically to the information herein; all such changes will be reported in subsequent revisions or technical newsletters.

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Preface

Who should use this manual . . .

This manual helps you determine who to call when the System/36 does not operate as expected. This manual is intended for a person operating the System/36 from the system console with access to each device on the system. This manual assumes that the system has been working properly, and now it is not.

How this manual is arranged . . .

Chapter 1 of this manual is the starting point for all problem determination. However, you can use the "Symptom Index" if you know the type of problem you are having with the system. Appendix A contains copies of the "Problem Summary Form." The form is used to pass along information to service personnel. Appendix B can help you take a system dump when a serious problem exists (such as a program check or loop or hang condition).

If you need more information . . .

You may need to refer to other IBM publications for more specific information about a particular topic. For more information about the system/36 and its IBM manuals, refer to the *Guide to Publications*, SC21-9015.

The following manuals are referenced in this manual:

- *IBM System/36 Operating Your Computer— 5363*, SC21-9685
- *IBM System/36 Setting Up Your Computer— 5363*,SA21-9926
- *IBM System/36 System Messages*, SC21-7938
- *IBM 5250 Information Display System and Site Preparation Guide*, GA21-9337
- *IBM Cabling System Guide for Twinaxial Applications*, GA21-9491
- *Changing Your System Configuration*, SC21-9052
- *System Reference*, SC21-9020
- *IBM 5250 Emulation Program User's Guides*

Symptom Index

Please read the Symptom Index from top to bottom. Find the symptom that describes the problem and go to the step and page indicated.

If you do not find a symptom that describes the problem, go to Chapter 1.

Symptoms	Step and Page
A red control panel light is on	Step 2.1 on page 2-1
You cannot power on the system	Step 3.1 on page 3-1
You cannot perform an initial program load	Step 3.1 on page 3-1
You have a noisy system	Step 6.1 on page 6-1
You have a SYS-0019 message displayed on system console	Step 3.27 on page 3-11
You have had a disk initialized or replaced	Step 7.45 on page 7-17
You have a system message indicating a disk error or disk problem	Step 7.1 on page 7-1
You gave a system message indicating a problem with the Print Spool or the Job Queue	Step 7.4 on page 7-2
You have a problem with the system console	Step 1.6 on page 1-4
You have a SRC of E000 to E0FF	Step 1.18 on page 1-9
Your system seems to be in a loop or hang condition	Step 1.6 on page 1-4
A job produced no output	Step 4.1 on page 4-1
A job produced incorrect output	Step 4.1 on page 4-1
A display or printer shows an error code or has a check light on	Step 1.16 on page 1-8
Jobs are running slower than usual	Step 5.1 on page 5-1
You are having a problem using diskettes or magnetic tape	Step 1.16 on page 1-8
You are having a display station problem (either local or remote)	Step 1.16 on page 1-8
You are having a printer problem	Step 1.16 on page 1-8
You cannot communicate with another device or computer	Step 1.16 on page 1-8
You are having a problem with the local area network	Step 1.16 on page 1-8

Chapter 1. Start Here

Many problems can be easily and quickly fixed by you. Other problems require that you call for assistance. Continue with step 1.1 to begin solving the problem.

1.1

Keep this thought in mind when approaching a problem:

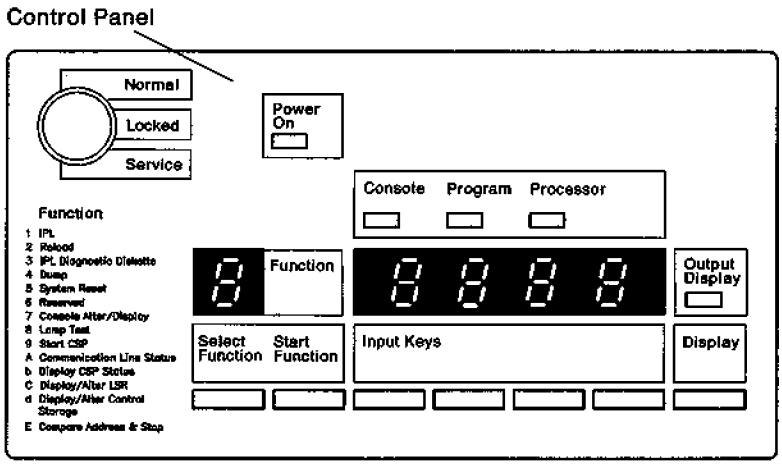
Many computer problems occur after changing a configuration or a program.

If you have just altered a configuration or program, verify the change before continuing with the next step.

↓
1.2

System Configuration: A process that specifies the machines, devices, and programs that form a particular data processing system.

1.2



R36A003-1

Each character in the Function and the Output display is formed by using up to seven segments which form the number 8 as shown on panel above.

One or more segments may come on and remain on but still not form a character that you can recognize. See the following examples:

R36A004-0

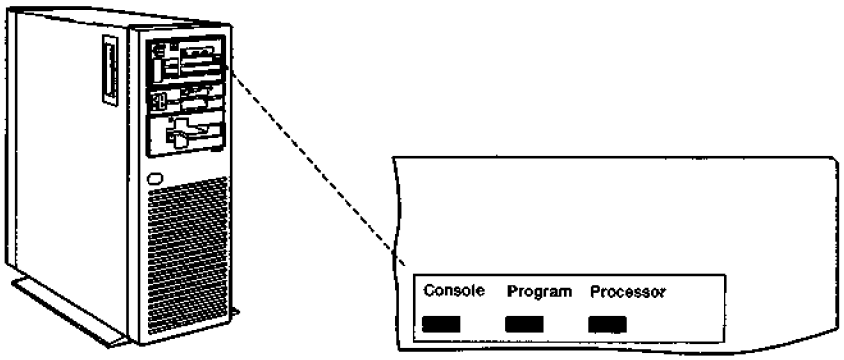
These are examples only and you could have one or more segments that do not form a character.

Are any segments on that do not form a character?

Yes	**No**
↓	↓
6.4	**1.3**

1.3

Are there any red lights on?

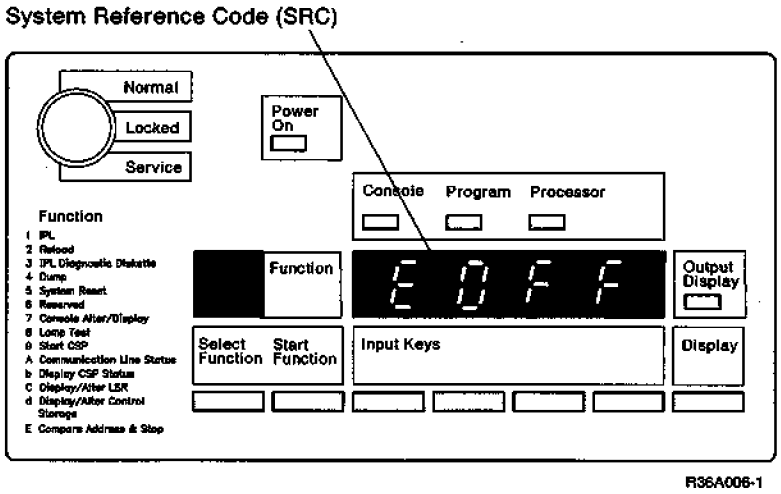


Yes
↓
2.1

No
↓
1.4

1.4

Check the four-character output display on the control panel for a system reference code.



System reference codes are usually displayed in messages. However, they may be displayed on the system control panel when a processor problem happens. When recording system reference codes from the control panel, be sure not to confuse the letter b with the number 6.

Do you have a system reference code of E000 to E0FF?

Yes
↓
1.18

No
↓
1.5

1.5

Are you trying to power on and perform an initial program load (IPL) of the system (start the system)?

Yes	No
↓	↓
3.1	1.6

A menu appears at the system console when the system has successfully been started. The menu allows you to enter commands to the system. The standard menu for the system is shown below. (This menu may appear after you respond to the IPL Sign On display. Your system may use a different menu than the one shown.)

```
                                        MAIN
                                Main System/36 help m
Select one of the following:

   1. Display a user menu
   2. Perform general system activities
   3. Use and control printers, diskettes, or ta
   4. Work with files, libraries, or folders
   5. Use programming languages and utilities
   6. Communicate with another system or user
   7. Define the system and its users
   8. Use problem determination and service
   9. Use office products
  10. Sign off the system

Cmd3-Previous menu   Cmd7-End      Cmd12-How to

Ready for option number or command
```

1.6

Can you do work at the system console?

Yes	No
↓	↓
1.8	1.7

Note: You are trying to determine if the system console can *interact* with the system. For example, can you:

- Sign on?
- Sign off?
- Change from command mode to console mode?
- Answer a message?
- Enter a command or procedure?

1.7

If you have additional display stations, try to use them. A simple test would be to try to either sign on or sign off at two or more display stations.

Can you do work at any display station?

Yes	No
↓	↓
1.19	1.17

Note: You are trying to determine whether the system is in a *loop* or *hang* condition. A simple test for this would be to try to sign on (or sign off) at two or three display stations. If the display station's Input Inhibited indicators turn on and stay on, the system is in a loop or hang condition (answer NO).

1.8

The system appears able to accept commands from the system console. You must now make sure that all messages were answered before you continue using this problem determination manual. (An unanswered message could be the cause of the problem.) Additional information on messages and options is available in the manual *System Messages*, SC21-7938 or *Operating Your Computer— 5363*, SC21-9685.

Note: If you continue to have problems answering messages, call for software service.

Make sure that all outstanding messages have been answered, then continue with the next step.

↓
1.9

You can tell if a message has been answered by looking at the first two characters to the left of the message.

**means the message has been answered.

01, 02, 04, and so on, means the message is outstanding (has not been answered).

Note: You have to be in console mode at the system console to view this display. You can place the system console in console mode by doing the following:

- Press and hold a shift key, then press the Sys Req key.
- Press the Enter key.

1.9

Does either of the following statements describe the problem?

1. You have a message on the system console indicating a disk or print spool error.
2. You need to replace disk information that has been lost.

Yes	No
↓	↓
7.1	1.10

```
SYSTEM



** SYS-5520 Incorrect user ID at display station
   1
   REPLY command successful
02 SYS-5521 Incorrect password at display statio
03 SYS-5520 Incorrect user ID at display station
** SYS-7300 Options ( 1 3 )
** Display stn W3 not communicating with system,
05 SYS-6320
   Printer P1 is not ready
06 SYS-6750
   Control unit for printer PX is not communicat
07 SYS-7750
   Control unit for display stn A1 not communica
08 SYS-6730
   CD1--Control unit is now being slow polled
   4.3
   REPLY command successful
```

To answer a message, enter the first two characters to the left of of the message. If an option selection is required, enter the first two characters to the left of the message, a comma, and the appropriate option.

1.10

To answer the following question, you will have to visually inspect each one of the devices affected by the problem.

Do any of the display stations or printers show an error code or have a check light on?

Yes	No
↓	↓
1.16	1.11

1.11

Is the problem: You received no output from a job?

Yes	No
↓	↓
4.1	1.12

Output: Data that has been processed. Output can be printed on a printer, displayed at a display station, or placed on disk or diskette.

1.12

Is the problem: You received output from a job, but the output was different than you expected?

Yes	No
↓	↓
4.1	**1.13**

1.13

Is the problem related to the response time of the system (jobs are running slower than usual)?

Yes	No
↓	↓
5.1	**1.14**

1.14

Is the problem: You have a noisy system?

Yes	No
↓	↓
6.1	**1.15**

1.15

Do any of the following statements describe the problem?

1. You cannot sign on at a display station (either local or remote).
2. A display station (either local or remote) has an Input Inhibited indicator on.
3. You are having a problem communicating with another system, device, or work station controller.
4. You are having a problem using diskettes or magnetic tape.
5. You are having a problem with a printer.

Yes	No
↓	↓
1.16	**1.24**

1.16

Enter the PROBLEM command on the entry line of the system console in command mode. This begins the online problem determination aids that will further help you with these problems. You have completed problem determination using this manual. You should continue by following the instructions on the online problem determination displays.

Note: If you find that the online problem determination aids are not installed on your system, you should locate the appropriate system support program diskette, insert it into the diskette drive, and respond to the system message with a 0 option. This will install the problem determination aids on your system. (The system support program diskettes were shipped to you as Program 5727-SS6.) Call for hardware service if you cannot install or run the problem determination aids on your system.

Another way to begin the online problem determination aids is to select the *Problem determination and service* option from the Main menu and then the *Online problem determination* option from the Probserv menu.

1.17

The system appears unable to accept commands. This problem can be caused by system hardware or may be a *loop* or *hang* condition.

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record the time the problem happened.
3. Go to Appendix B of this manual. Appendix B will tell you how to collect system storage dump information for the software service representative.

Valuable diagnostic information will be lost if you do not collect the storage dump information before you try to do an IPL.

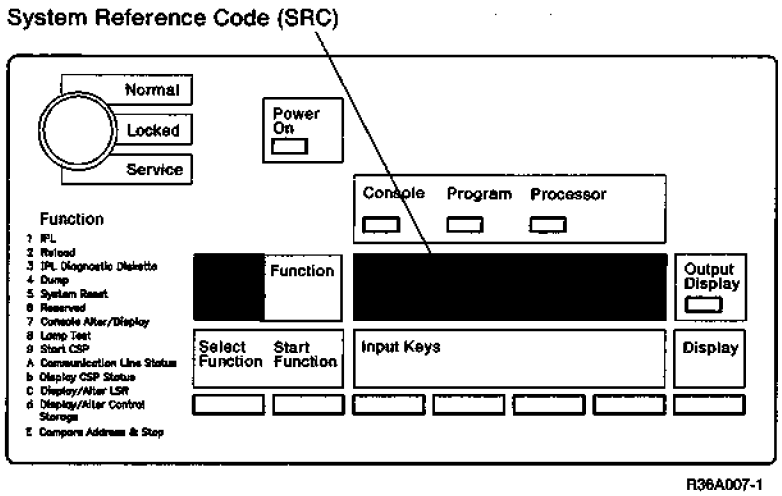
↓
B.1

1.18

There is a failure in either the control storage processor or in the control panel processor.

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record the four-character system reference code that is shown in the output display on the control panel and the time the problem happened.



R36A007-1

System reference codes (SRCs) can be displayed either in the system messages or on the system control panel when a processor problem happens. When recording system reference codes from the control panel, be sure not to confuse the letter b with the number 6.

R36A041-0

3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

1.19

Do you have an alternative system console configured?

Yes	No
↓	↓
1.20	**1.23**

Alternative System Console: A command display station that can be designated as the system console.

1.20

Go to the display station that is configured to be the alternative console. (See note.)

Try to do the following from the alternative console:

1. Sign on the alternative console (if you are not already signed on).
2. Enter the *CONSOLE* command.
3. A SYS-7300 message will appear if a user was signed on at the system console. Respond to this message with a option 3 if the message appears.
4. Continue operating the system from the alternative console, if you can.

Continue
↓
1.21

Note: If you can use the system, you can look at the Status Work Station display to identify any command display stations that are configured to be an alternative system console. You can enter the *STATUS WORKSTN* command (*D W*) to see this display.

1.21

In a previous step you were asked if you had an alternative system console configured.

Were you able to use the alternative console?

Yes	No
↓	↓
1.22	**1.23**

1.22

Continue operating the system from the alternative console..

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record an SRC of CC60 on the form and the time the problem happened.
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: This SRC is not displayed on the system control panel or a display station but should be reported when you call for hardware service.

1.23

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and function you were doing when the problem happened. Record an SRC of CC60 on the form and the time the problem happened.
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: You may be able to replace the system console with another display station, if you have another display station available. (Make sure that you set the address to 0.) You might then be able to operate the system until the service representative arrives.

Note: This SRC is not displayed on the system control panel or a display station, but should be reported when you call for hardware service.

1.24

The problem you are having requires that you call for service.

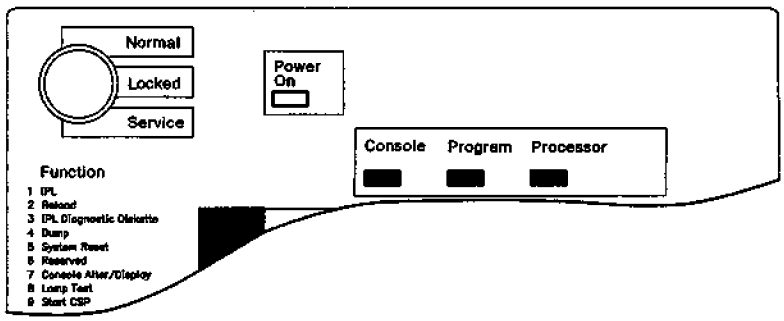
Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record the time the problem happened.
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Chapter 2. Red Control Panel Light Is On

2.1

Are the Console, Program, and Processor lights *all* on?



R36A008-1

Yes
↓
2.2

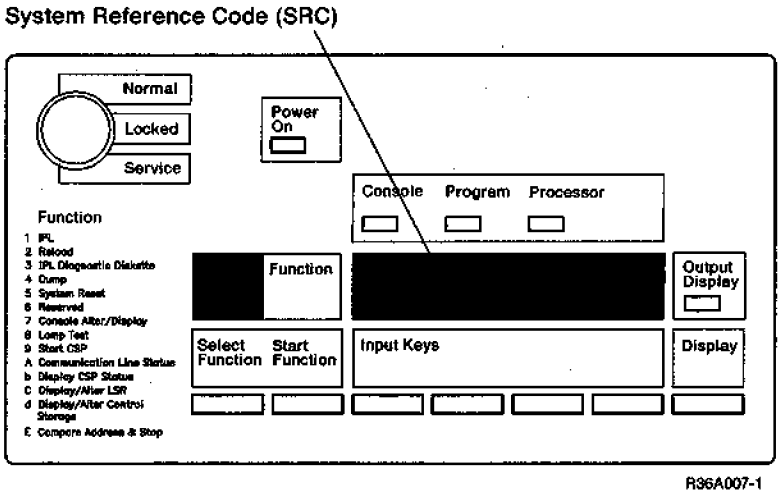
No
↓
2.3

2.2

There is a failure in the control panel processor.

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record the four-character system reference code that is shown in the output display on the control panel. Record E000 on the form if you do not have a system reference code displayed, and record the time the problem happened.



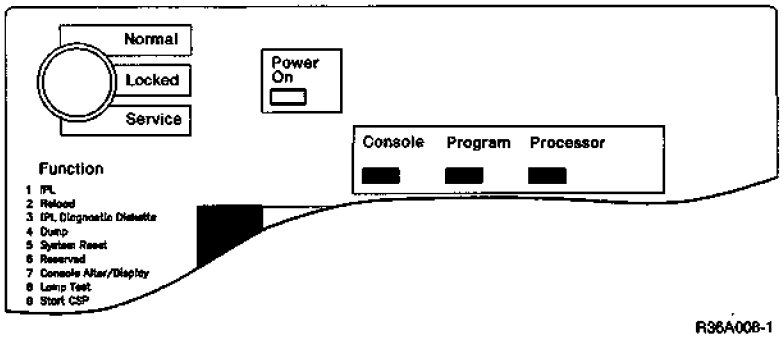
R36A007-1

System messages are normally displayed on the system console but the SRC can be displayed on the output display for some types of program problems. When recording system reference codes from the control panel, be sure not to confuse the letter b with the number 6.

R36A041-0

3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

2.3



Which light is on? (See note.)

↓

Processor No →	Program No →	Console
Yes	**Yes**	**Yes**
↓	↓	↓
2.4	**2.18**	**2.20**

Note: If more than one light is on, answer Yes to the first question that asks about one of the lights that is on (work from left to right).

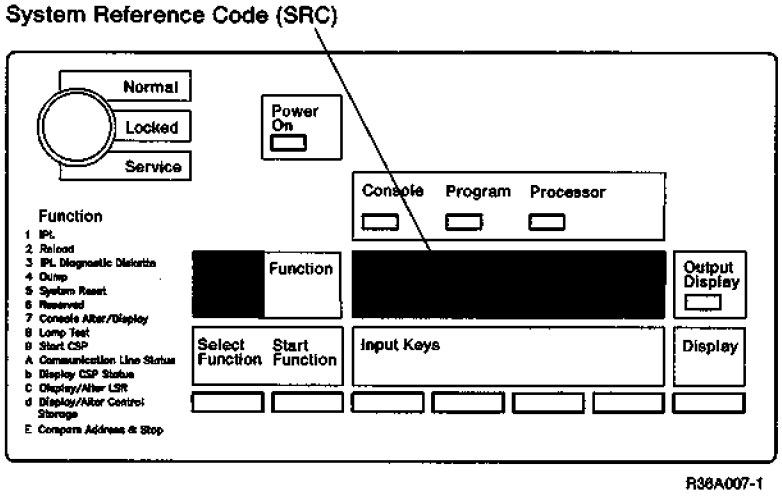
2.4

PROCESSOR LIGHT IS ON

A Processor light with an SRC displayed on the system control panel indicates that there is a system hardware failure.

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record the SRC that is displayed on the system control panel and the time the problem happened.



R36A007-1

System reference codes (SRCs) can be displayed either in the system messages or on the system control panel when a processor problem happens. When recording system reference codes from the control panel, be sure not to confuse the letter b with the number 6.

R36A041-0

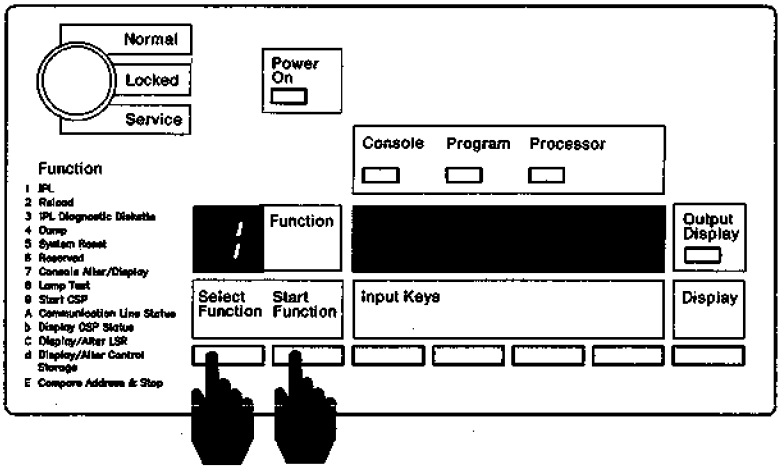
3. Record any messages, error codes, or check lights that appear on the display station or printer.

↓
2.5

2.5

Do the following:

1. Press the Select Function key.
2. Press the Start Function key to do an initial program load (IPL).



When the Security switch is in the Normal position, you should have a 1 displayed in the Function display when you press the Select Function key.

↓
2.6

2.6

If the IPL Sign On display appears, complete the sign-on steps and try to start the system in the usual manner.

Were you able to start the system in the usual manner?

Yes
↓
2.7

No
↓
2.8

2.7

Continue operating the system. If the problem occurs again, call for hardware service.

End problem determination.

2.8

Is the SYS-0019 message displayed at the system console?

Yes	No
↓	↓
3.27	2.9

2.9

Is a Processor light with an SRC displayed on the system control panel?

Yes	No
↓	↓
2.11	2.10

2.10

The problem requires that you call for hardware service. This manual cannot help you with the problem.

Do the following:

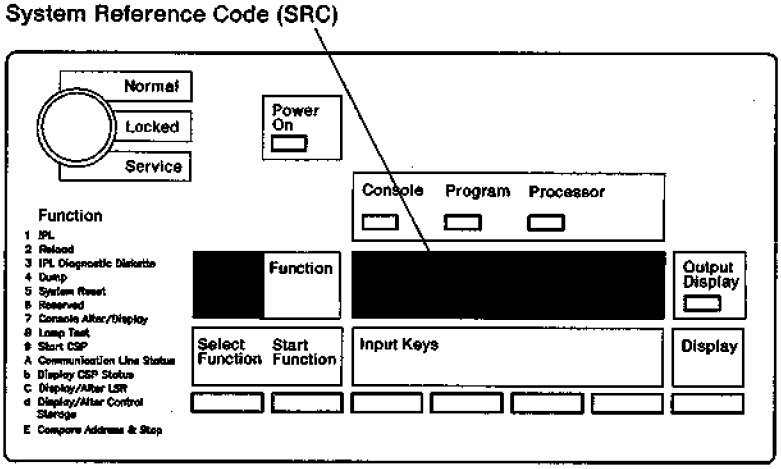
1. Get the copy of the "Problem Summary Form" on which you recorded the original problem.
2. On item 2 of the form, describe the problem and the function you were doing when the problem happened. Record the time the problem happened.
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

2.11

Do the following:

1. Get the copy of the "Problem Summary Form" on which you recorded the original processor problem or SRC. Record on item 2 that you have another processor light or another SRC after you tried to perform another IPL of the system.
2. Look at both the system console and the system control panel and record any system reference code that may be displayed. Again, record the time this problem happened.

System Reference Code (SRC)



R36A007-1

System reference codes are usually displayed in messages. However, they may be displayed on the system control panel when a processor problem happens. When recording system reference codes from the control panel, be sure not to confuse the letter b with the number 6.

R36A041-0

Continue

↓

2.12

2.12

To perform the diskette diagnostics do the following:

1. Get diskette 61.
2. Insert diskette 61 into the diskette drive slot.

Diskette 61 should be with the diskettes that were used to install the system.

Continue

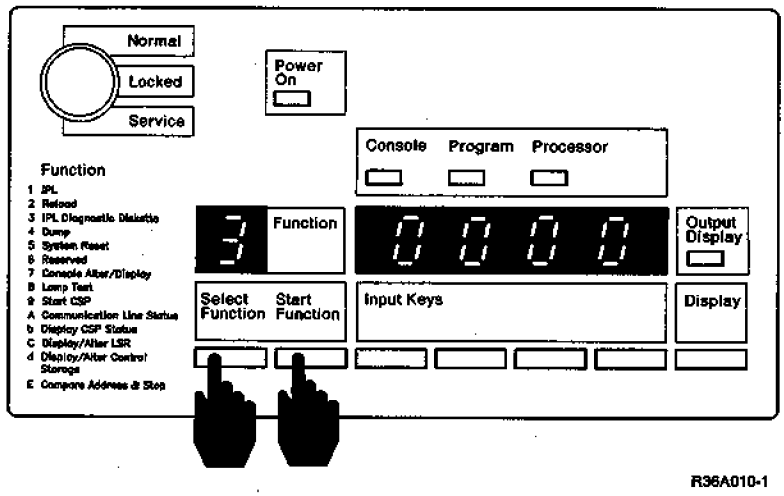
↓

2.13

2.13

Turn the Security switch to the Service position, then do the following:

1. Press the Select Function key until 3 is in the Function display.
2. Press the Start Function key.



R36A010-1

Note: This function may run up to 20 minutes.

Were you able to select function 3 and then start the function?

Yes
↓
2.14

No
↓
2.15

The 3 should blink once in the Function display if the function has started,and two rows of dashes will move across the output display until the IPL count down is displayed on the system console.

2.14

Did a DCP Main Menu appear?

Yes
↓
2.16

No
↓
2.10

2.15

Do the following:

1. Get the copy of the "Problem Summary Form" on which you recorded the original processor problem.
2. Record on item 3 that you were not able to perform function 3 from the diskette 61. Record the time that you had this failure. Also record an SRC of E050 on item 3 of the form. (See note.)
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: This SRC is not displayed on the system control panel or a display station but should be reported when you call for hardware service.

2.16

Do the following:

1. You must reload SSP. Get your SSP diskettes.
2. Reload SSP following the IPL from diskette procedures for SSP generation and reload in the manual *Operating Your Computer—5363*. (See note).
3. After the SSP reload is complete and you do an IPL, you should get the IPL Sign On display shown below.

```
                          IPL SIGN ON              Optional-*      W1




          User ID . . . . . .

          Password. . . . . .

          User menu . . . . . .                                     *

          Library . . . . . .                                       *
          Procedure . . . . . .                                     *
          IGC session ? . . . . . Y,N  Y
          Date. . . . . .MMDDYY  080785

          Time. . . . . .hhmmss

          Overrides ? . . . . . N,Y  N

Help - Assistance for sign on
                                          COPYRIGHT 1985 IBM Corporation
```

Did you get the IPL Sign On display?

Yes	No
↓	↓
2.17	**2.53**

Note: The IPL from diskette procedure for your system is the "Starting System/36" chapter of the manual *Operating Your Computer—5363*, SC21-9685. If you cannot locate or reload the SSP diskettes, you should contact the person who can help you reload SSP.

The display shown is the standard sign-on display for the system. Your display will have fewer prompts if password security and Ideographic Character Set (IGC) are not used.

2.17

Continue operating the system. If you continue to have a problem, do the following:

1. Get the copy of the "Problem Summary Form" on which you recorded the original processor problem and record, on item 2 of the form, that you have reloaded SSP and you still have a problem with the system.
2. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
3. End problem determination.

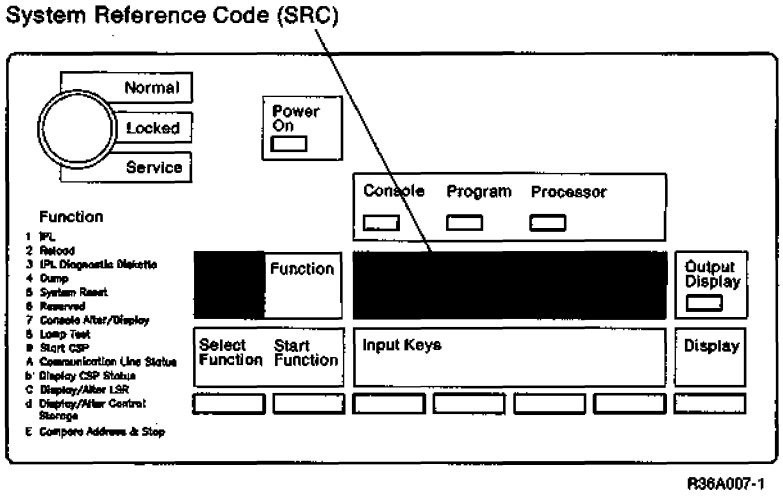
2.18

PROGRAM LIGHT IS ON

The Program light indicates that there is a programming failure.

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record the system reference code (SRC) that is displayed in the four-character output display on the control panel and the time the problem happened.



R36A007-1

When recording system reference codes from the control panel, be sure not to confuse the letter b with the number 6.

R36A041-0

3. Record the status (on, off, or blinking) of all other lights and displays on the control panel.

↓
2.19

2.19

Go to Appendix B of this manual. Appendix B tells you how to collect system storage dump information for the software service representative.

Note: Valuable diagnostic information will be lost if you do not collect the storage dump information before you do an IPL of the system.

↓
B.1

2.20

CONSOLE LIGHT IS ON

Is the system console attached to your System/36 system unit by twinaxial cable?

Yes	No
↓	↓
2.21	**2.59**

2.21

Are any other display stations or printers attached to system port 0 in addition to the system console?

Yes	No
↓	↓
2.22	**2.28**

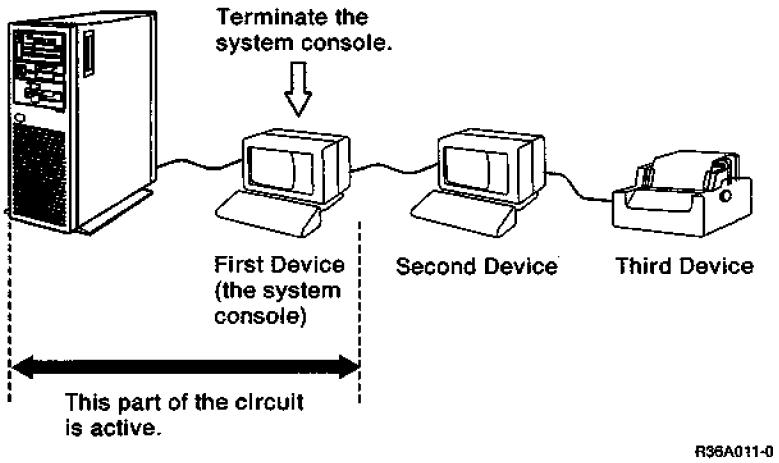
The Console light comes on when the system loses communication with the system console.

The system console is usually the first device attached to system port 0. The console must have a work station address of 0.

2.22

You can try to solve the problem by terminating the first device (the system console) on port 0. Before terminating the system console, ensure that devices attached to the system console are not being used. Terminating the system console isolates the other devices on port 0. If the Console light goes off and the system console becomes usable, you know that the problem was being caused by a device or cable beyond the system console.

The drawing below represents a system with more than one device attached to port 0.



Did the Console light go off, making the system console usable?

Yes	No
↓	↓
2.23	**2.28**

Additional Information: Some work stations are terminated by a switch. Others are automatically terminated when the cable connector is removed from the twinaxial cable connector 2 on the work station. If you need more information about the termination of your work station, refer to the manual you used to set up your work station.

2.23

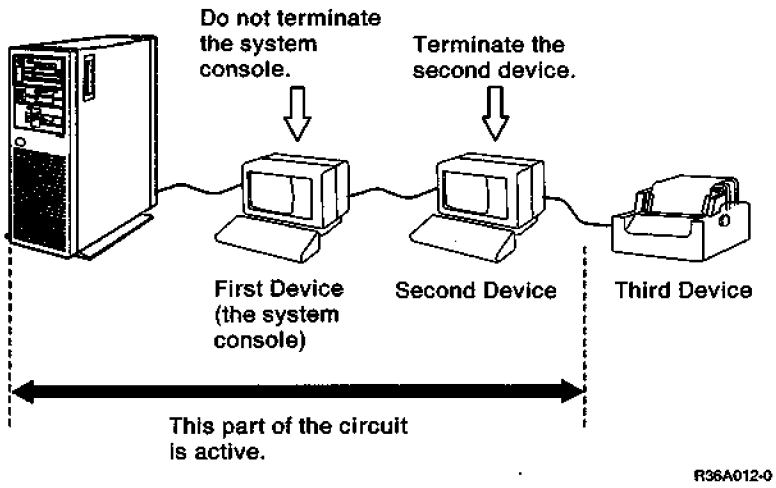
Because the system console is now usable, you can conclude that the problem was caused by a device or cable beyond the first work station (because those devices and cables are no longer part of the circuit). To isolate the problem further you can systematically work out from the system console, terminating one device at a time, until the Console light problem occurs again. When the Console light turns on again, you know that the last device (or cable) that was made part of the circuit is causing the problem.

Continue
↓
2.24

2.24

The following drawings show how you can work out from the system console, one device at a time, allowing one device and cable to be added to the circuit. Eventually you will find the particular device or cable that is causing the Console light to turn on.

Example: Test the second device by terminating the second device, and setting the termination of the system console to the not-terminated condition.

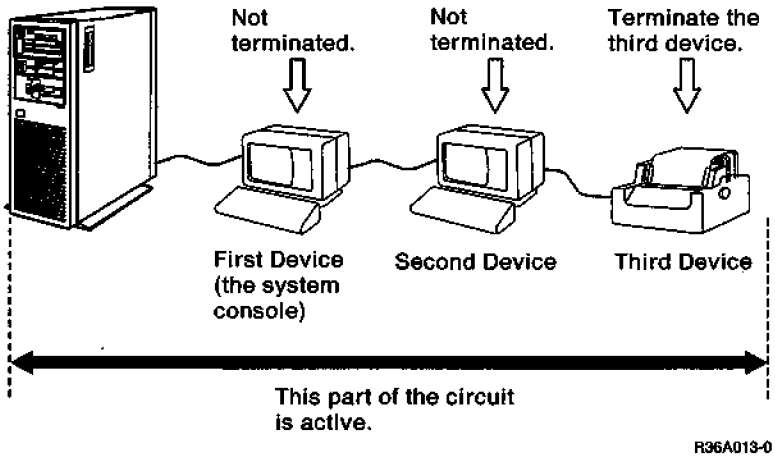


Continue
↓
2.25

Additional Information: Some work stations are terminated by a switch. Others are automatically terminated when the cable connector is removed from the twinaxial cable connector 2 on the work station. If you need more information about the termination of your work station, refer to the manual you used to set up your work station.

2.25

Example: Test the third device by terminating the third device, and setting the termination of the second device to the not-terminated condition.



Continue this procedure of terminating each device in turn until you find the device that causes the Console light to turn on or until all devices on the line are tested.

Did you determine which of the display stations or printers attached to the system console is causing the Console light?

Yes	No
↓	↓
2.26	**2.51**

2.26

Check the following on the device that causes the Console light:

1. Check that the address is set correctly.
2. If possible, replace (swap) the twinaxial cable that is connected to connector 1 with another cable.
3. Make sure that the twinaxial cable connectors are tight.

Does the device continue to cause a Console light?

Yes	No
↓	↓
2.27	**End problem determination.**

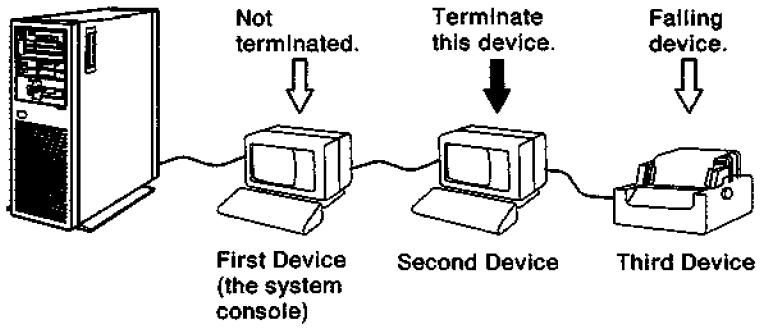
If two work stations have the same address, both work stations can fail. Be sure to check the addresses of all work stations on the twinaxial cable attached to the console.

Some work stations use groups of mechanical switches to set the work station address. Some work stations use the keyboard to set the address. The manual *Setting Up Your Computer—5363*, SA21-9926 contains information on how to set the addresses of most IBM work stations. The setup manual for your work station also has information on how to set the address.

2.27

Do the following:

1. Take the failing display station or printer out of the line going to system port 0, as shown below:



2. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
3. On item 1 of the form, describe the problem and the procedure you used to isolate the failing display station or printer.
4. Call for hardware service for the failing device. Save the completed "Problem Summary Form" for the service representative.
5. End problem determination.

2.28

Is the system console an IBM Personal Computer that uses the 5250 emulation program or the Enhanced 5250 emulation program?

Yes	No
↓	↓
2.29	**2.33**

2.29

If the Enhanced 5250 emulation program is started before the 5363 System Unit is powered on, the personal computer may display a message that the system is not available. If this message appears, you should select the Ignore option on the display before you answer the following question.

Is the Console light still on?

Yes	No
↓	↓
2.30	**End problem determination.**

2.30

Power off the system console (the personal computer) and power it on again. Then try to begin the 5250 emulation program at the system console. This will make sure that the emulation program did not terminate abnormally, causing the console check to occur.

Is a Console light still on?

Yes	No
↓	↓
2.31	**End problem determination.**

2.31

There are two ways to determine if the personal computer being used as the system console is causing the problem:

- Use the problem determination procedures in the personal computer manuals to see if the personal computer and its programs are working correctly. (See Note 1.)
- Replace (swap) the personal computer with a display station such as the IBM 5251, 5291, 5292, 3180 (or equivalent). (See Note 2.)

Did you determine that the personal computer used as the system console is causing the problem?

Yes	No
↓	↓
2.32	**2.35**

Note:

1. Current IBM Personal Computer manuals:
   a. *IBM 5250 Emulation Program User's Guide*
   b. *Enhanced 5250 Emulation Program User's Guide*
   c. *Display Station Emulation Adapter Installation and Problem Determination Procedures*
   d. *Display Station Enhanced Emulation Adapter Installation and Problem Determination Procedures*
2. Be sure to set the work station address to 0 and set the termination switches properly.

2.32

Use the personal computer problem determination procedures to solve the problem or else get hardware service for the personal computer.

You may be able to continue operating the system by doing one of the following:

- Enter the CONSOLE command at the alternative system console and operate the system from the alternative console. (See note.)
- Replace (swap) the failing system console with another personal computer having the 5250 emulation program or a display station such as the IBM 5251, 5291, 5292, or 3180.

End Problem determination.

Note: Try to sign on and enter the CONSOLE command at other locally attached display stations. The Console light will go off when you locate a display that is an alternative console.

2.33

Is the system console powered on?

Yes	No
↓	↓
2.35	**2.34**

2.34

Do the following:

Power on the system console. (This is probably the cause of the Console light coming on.)

Did the Console light go off?

Yes	No
↓	↓
End problem determination.	**2.35**

2.35

Do you have an alternative system console configured?

Yes, or you do not know	No
↓	↓
2.36	**2.49**

Alternative System Console: A command display station that can be designated as the system console.

2.36

Are you trying to start the system? (Are you trying to power on and perform an initial program load (IPL)?)

Yes

↓
2.37

No, the system has already been started

↓
2.38

The following display appears at all display stations if the Console light occurs while you are trying to start the system:

```
IPL




IPL is in progress, please wait.
```

2.37

Go to the display station that is configured to be the alternative console. (See the note if you do not know if you have an alternative console configured.)

Try to do the following from the alternative console:

1. Enter the *CONSOLE* command on the display that says *IPL in progress, please wait.* The Console light should go off.
2. If the IPL Sign On display appears, complete the sign-on steps and try to start the system in the usual manner.
3. Operate the system from the alternative console if you can.

Continue

↓
2.39

Note: If you do not know if you have an alternative console configured, you should enter the CONSOLE command at other locally attached display stations. The IPL Sign On display will appear when you locate a display station that is an alternative console. Complete this step and then continue with step 2.40 whether or not you locate an alternative console.

2.38

Go to the display station that is configured to be the alternative console. (See the note if you do not know if you have an alternative console configured.)

Try to do the following from the alternative console:

1. Sign on the alternative console (if you are not already signed on).
2. Enter the *CONSOLE* command. The Console light should go off.
3. A SYS-7300 message will appear if a user was signed on at the system console when the Console light appeared. Respond to this message with a option 3 if the message appears.
4. Continue operating the system from the alternative console if you can.

Continue

↓

2.39

Note: There are two things you can do if you do not know if you have an alternative console configured.

- Try to sign on and enter the *CONSOLE* command at other locally attached display stations. The Console light will go off when you locate a display station that is an alternative console.
- If you can use the system, you can look at the Status Work Station display to identify any command display stations that are configured to be an alternative system console. (You can enter the *STATUS WORKSTN* command (D W) to see this display.) Complete this step and then continue with step 2.40 whether or not you locate the alternative console.

2.39

Power off the failing system console.

↓

2.40

2.40

Make sure that:

1. The system console power cord is securely plugged into the wall outlet.
2. The system console power cord is securely plugged into the display station or personal computer. (Most IBM display stations and personal computers have power cords with plugs at both ends.)
3. Power is available at the power outlet. (Your building maintenance department may have to do this for you.)

If there is still a problem, continue with the next step.

↓
2.41

2.41

Make sure that:

1. The system console address is set to 0. (Refer to the setup guide for the display station if you need help in checking the address.)
2. The system console is in Normal mode (not Select mode or Test mode). (Refer to the operator's guide for the device if you need more information.)
3. The system console cable is on port 0 of the system unit and on socket 1 of the system console. (The labels on the work station cables may help you check this.) Also make sure that the work station cable connectors are tight (hand tighten them). (See note.)

If there is still a problem, continue with the next step.

↓
2.42

Note: The system console may not be the first device on port 0 of the system unit. If it is not, you must make it the first device (no other devices can be connected between the system unit and the system console). If the system console is an IBM Personal Computer, refer to the manual *Setting Up Your Computer—5363*, SA21-9926.

2.42

Do the following:

1. Power on the system console. The Sign On display should appear.
2. Try to sign on the system console.

Could you sign on the system console?

Yes	No
↓	↓
2.43	2.45

2.43

If you do not have an alternative system console configured, this is the end of problem determination because you have corrected the problem.

If you have an alternative system console configured, continue the procedure.

Were you able to use the alternative console?

Yes	No
↓	↓
2.44	2.69

2.44

Do the following to restore the system console:

1. Place the alternative console in command mode (if it is not already in command mode). The main Help menu or your Sign On menu should be shown. If the alternative console is in console mode, you can place it in command mode by doing the following:
   a. Press and hold a shift key, then press the Sys Req key.
   b. Press the Enter key.
2. Enter the *CONSOLE GIVE* command at the alternative console.
3. Enter the *CONSOLE* command at the system console.
4. End problem determination.

Note: If you have other display stations or printers attached to port 0, you will need to set the terminator switch of the system console back to 2. If the problem recurs, you should suspect one of the other devices or cables as the cause of your problem.

If your system uses the IBM cabling system, reconnect the cables the same way they were before you changed them.

If the system console is an IBM Personal Computer, set its termination state to what it was before you changed it.

2.45

Is the system console attached to your System/36 system unit directly by twinaxial cable?

Yes	No
↓	↓
2.46	**2.59**

2.46

Check the twinaxial cabling system that attaches the system console to the System/36 system unit at port 0 by doing the following:

- If you have another twinaxial cable that is known to be good, swap the cables.
- If the console works with the swapped cable, the original console cable was defective.
- If the twinaxial cable is defective, replace the cable and end problem determination.

Continue with the next step after you are sure that the cabling system is not the cause of the problem.

Continue
↓
2.47

Note: To determine if the cables are good, you will find a cable check out procedure in the manual *IBM 5250 Information Display System and Site Preparation Guide*, GA21-9337. Go to the section dealing with Line continuity and Polarity Test.

2.47

In a previous step you were asked if you had an alternative system console configured.

Were you able to use the alternative console?

You were able to use the alternative console.	**You tried, but could not use the alternative console.**	**You did not try to use the alternative console or one is not available.**
↓	↓	↓
2.48	**2.49**	**2.50**

2.48

Continue operating the system from the alternative console.

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record an SRC of CC60 on the form and the time the problem happened. (See note.)
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: This SRC is not displayed on the system control panel or a display station, but should be reported when you call for hardware service.

Additional Information: If you have other display stations or printers attached to port 0, you will need to set the terminator switch of the system console back to 2.

If your system uses the IBM cabling system, reconnect the cables the same way they were before you changed them.

If the system console is an IBM Personal Computer, set its termination state to what it was before you changed it.

2.49

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record an SRC of CC60 on the form and the time the problem happened. (See note.)
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: This SRC is not displayed on the system control panel or a display station, but should be reported when you call for hardware service.

Additional Information: If you have other display stations or printers attached to port 0, you will need to set the terminator switch of the system console back to 2.

If your system uses the IBM cabling system, reconnect the cables the same way they were before you changed them.

If the system console is an IBM Personal Computer, set its termination state to what it was before you changed it.

2.50

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record an SRC of CC61 on the form and the time the problem happened. (See note.)
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Addition Information: You may be able to replace the system console with another display station, if you have another display station available. (Make sure that you set the address to 0.) You might then be able to operate the system until the service representative arrives.

If the system console is an IBM Personal Computer, set its termination state to what it was before you changed it.

Note: This SRC is not displayed on the system control panel or a display station, but should be reported when you call for hardware service.

2.51

Do you still have a Console light on?

Yes	No
↓	↓
2.52	**End problem determination.**

2.52

To continue using the system, ensure that you have terminated the system console. You will not be able to use the work stations attached to the system console on port 0.

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the procedure you used to isolate the failing display station or printer.
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

2.53

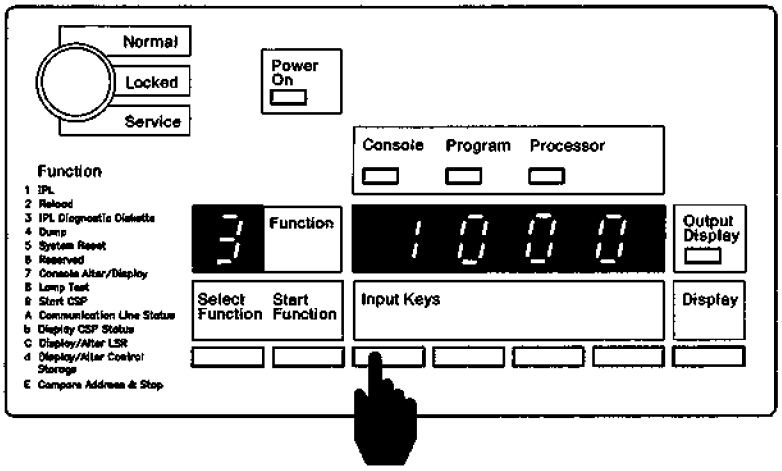
Do the following:

1. Get diskette 61.
2. Insert diskette 61 into the diskette drive slot.
3. Ensure that the Security switch is set to the Service position.
4. Press the Select Function key until 3 is in the Function display.

Continue
↓
2.54

2.54

Enter 1000 by pressing the first input key.



R36A015-1

An Input key automatically advances the numbers (1 through 9) and letters (A through F) until you release the key.

Note: Letters b and d are displayed in lower case, as shown:

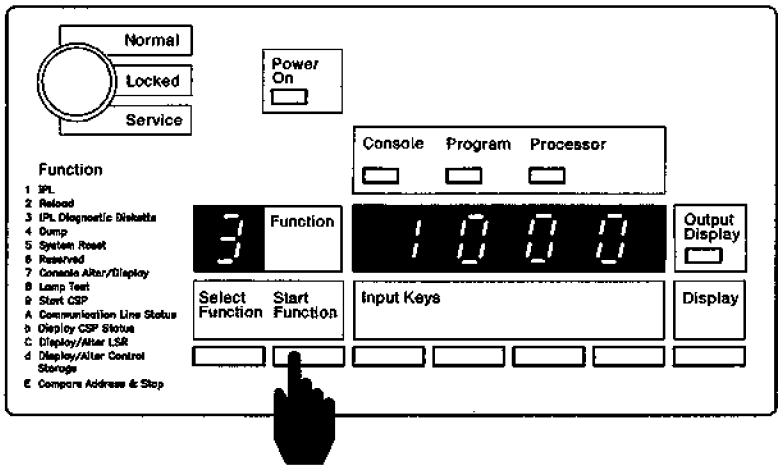
R36A016-0

If you go beyond the number 1, just keep pressing the Input key until it appears again.

↓
2.55

2.55

Press the Start Function key.



R36A017-1

When you press the Start Function key, the computer takes 5 to 10 minutes to check itself to make sure it is ready to operate. Follow the directions given by the screen prompts. When System/36 Check Out Program screen appears, go to the next step.

↓
2.56

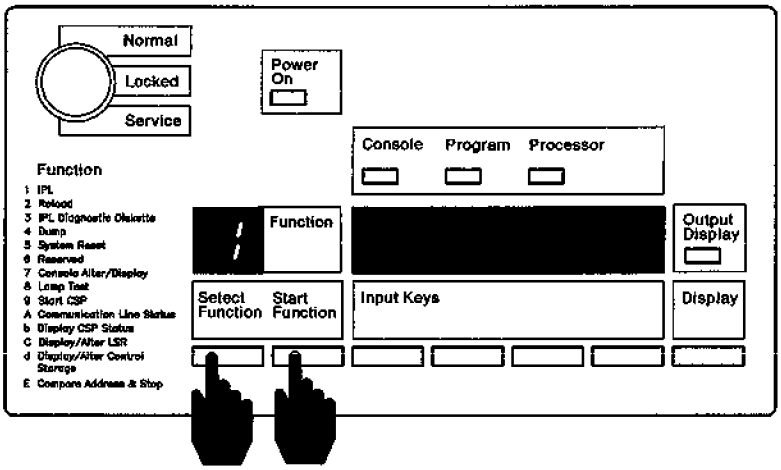
1000 is a special code that the computer uses when the Security switch is in the Service position.

The 3 should blink once in the Function display if the function has started, and two rows of dashes will move across the output display until the IPL count down is displayed on the system console.

2.56

Do the following:

1. Ensure that the Security switch is in the Normal position.
2. Press the Select Function key.
3. Press the Start Function key to do an initial program load (IPL).



↓
2.57

2.57

If the IPL Sign On display appears, complete the sign-on steps and try to start the system in the usual manner.

Were you able to start the system in the usual manner?

Yes	No
↓	↓
End problem determination.	**2.58**

If you specify Y to *Overrides* on the IPL Sign On display, you will see the IPL Overrides display. Do not change any of the programs run during IPL (option 2.). Otherwise, files may be damaged or destroyed.

2.58

Do the following:

1. Get a copy of the "Problem Summary Form" on which you recorded the original processor problem and record, on item 2 of the form, that you have reloaded SSP, reloaded the microcode with configure/customize, and you still have a problem with the system.
2. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
3. End problem determination.

2.59

How is your system console connected to the system unit?

Through an IBM cabling system.
↓
2.60

Through a conversion device.
↓
2.67

A conversion device, possibly a protocol converter, may be attached to the System/36 by twinaxial cable. Attached to the conversion device may be one or more work stations.

2.60

Try to isolate the system console work station from the other devices in the cabling system connected to port 0.

Ensure that no one is using a work station attached to the cabling system attached to system port 0.

Do you have a twinaxial cable available that may be used to help isolate the problem?

Yes
↓
2.61

No
↓
2.63

2.61

Perform the following steps:

1. Disconnect the cable from the system unit port 0.
2. Disconnect the cable(s) from the system console.
3. Connect the system unit (port 0) to the system console (port 1), using the available twinaxial cable.
4. Ensure the system console is terminated, and the address is set to 0.

Can you use the system console now?

Yes	No
↓	↓
2.62	**2.66**

Some work stations use groups of mechanical switches to set the work station address. Some work stations use the keyboard to set the address.

Termination of the work station is set by a switch located near the cable sockets. Set the switch to 1 (terminated) when you connect the console by twinaxial cable.

After completing problem determination be certain to reconnect all of the work stations as they were before you directly connected the system console to the system unit port 0.

2.62

The problem is caused by the cabling system or a work station attached to it.

Do the following:

1. Check all of the work stations attached to the cabling system for duplicate addresses.
2. Ensure that only the last work station is terminated.

If no problem is found, go to the manual *IBM Cabling System Problem Determination Guide for Twinaxial Applications* , GA21-9491.

End System/36 problem determination.

If two work stations have the same address, both work stations can fail. Be sure to check the addresses of all work stations on the cabling system that is attached to port 0.

Some work stations use groups of mechanical switches to set the work station address. Some work stations use the keyboard to set the address. The manual *Setting Up Your Computer—5363*, SA21-9926 contains information on how to set the addresses of most IBM work stations. The setup manual for your work stations also has information on how to set addresses.

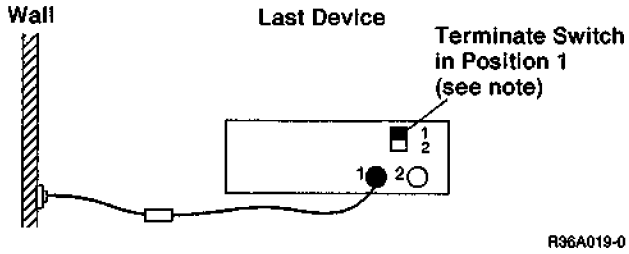
Termination in the IBM cabling system is set in one of two ways:

1. If you have an impedance matching device in the cable for the last work station, then set that work station termination switch to position 1 (terminated).
2. If the cable has no impedance matching device, then port 2 of the work station must have a terminator plug connected. The work station termination must be set to position 2 (cable through).

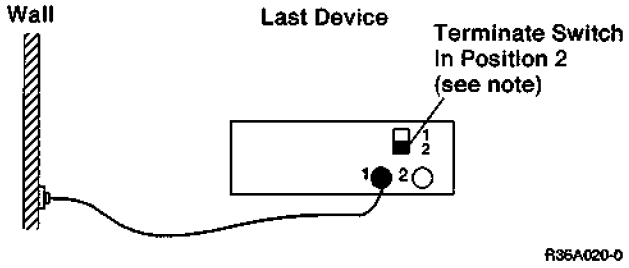
2.63

The last work station in the cabling system should use either:

A. A cable with an impedance matching device (a cylinder in the cable).



B. A special terminator in the work station port 2.



Which description matches the last work station in the cabling system attached to system unit port 0?

A
↓
2.64

B
↓
2.65

Note: If the last work station in the cabling network is self-terminating (no terminate switch), disregard the reference made in the diagram(s) to the terminate switch.

2.64

Perform the following steps:

1. Go to the system unit and locate the cable attached to port 0. Disconnect the cable plug from the wall connector (or whatever it plugs into).
2. Disconnect the system console cable(s) at the work station sockets.
3. Get the cable from the last work station (with the impedance matching device). Connect it to the system console.
4. Connect the cable from the system unit port 0 to the cable from the system console by plugging the cable connectors together.
5. Ensure that the system console is terminated, and the address is set to 0.

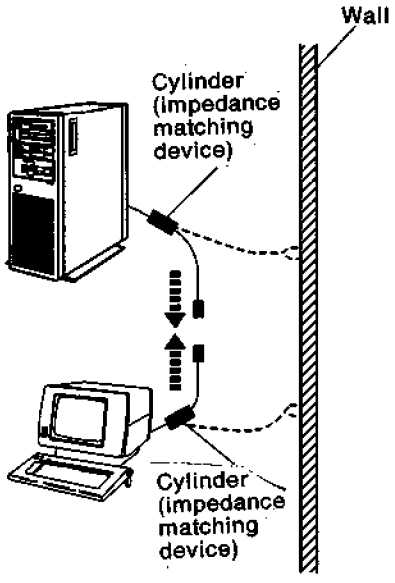
Can you use the system console now?

Yes	No
↓	↓
2.62	**2.66**

Some work stations use groups of mechanical switches to set the work station address. Some work stations use the keyboard to set the address. The manual *Setting Up Your Computer—5363*, SA21-9926 contains information on how to set the addresses of most IBM work stations. The setup manual for your work station also has information on how to set addresses.

Termination of the cabling system is usually set by a switch located near the cable sockets. The terminate switch should be set to position 1 (terminated). The cable should have a cylinder (impedance matching device), that allows termination of the cable.

Only the last work station on the cable should be terminated.



R36A021-0

2.65

Perform the following steps:

1. Go to the system unit and locate the cable attached to port 0. Disconnect the cable plug from the wall receptacle (or whatever it plugs into).
2. Go to the system console and locate the cable plugged into socket 1. Disconnect the cable from the wall receptacle (or whatever it plugs into). If the system console is the last (terminating) device in the cabling system, go to step 4.
3. Disconnect the cable that plugs into socket 2 of the system console, at the socket 2 connector. Get the terminator plug from socket 2 of the last work station in the cabling system. Connect the terminator plug to the system console socket 2.
4. Connect the cable from the system unit port 0 to the cable from the system console by plugging the cable connectors together.
5. Ensure that the system console is *not* terminated, and the address is set to 0.

Can you use the system console now?

Yes	No
↓	↓
2.62	**2.66**

The sockets on the system unit are called ports. Sockets on the work stations are exactly the same as ports on the system unit.

Some work stations use groups of mechanical switches to set the work station address. Some work stations use the keyboard to set the address. The manual *Setting Up Your Computer—5363*, SA21-9926 contains information on how to set the addresses of most IBM work stations. The setup manual for your work station also has information on how to set addresses.

When termination of the cabling system is provided by a terminator plug in socket 2 of the work station plug, the terminate switch should be set to 2 (cable through) for all work stations on the cable.

2.66

Reconnect all cable connectors to their original sockets. If you changed any work station addresses, reset the work stations to their original addresses (no two work stations should have the same address). Ensure that the termination of the cabling system is correct.

Continue
↓
2.28

Termination of the cabling system must be set correctly, or various problems will result.

Only the last work station on the network should be terminated. Termination of the IBM cabling system is set in one of two ways:

1. If you have a cylinder (impedance matching device) in the cable for the last work station, set that work station termination switch to position 1 (terminated).
2. If the cable has no cylinder (impedance matching device), port 2 of the work station must have a terminator plug connected. The work station termination must be set to position 2 (cable through).

2.67

Perform some visual checks of your equipment.

1. Ensure that the cable on the system unit port 0 is securely connected.
2. Ensure that the protocol converter power cord is securely plugged into the wall outlet.
3. Ensure that the protocol converter is powered on.

If there is still a problem, continue with the next step.

↓
2.68

2.68

Go to the protocol converter documentation and perform problem determination for the protocol converter.

Continue only if the protocol converter is working correctly.

↓
2.28

2.69

Do the following:

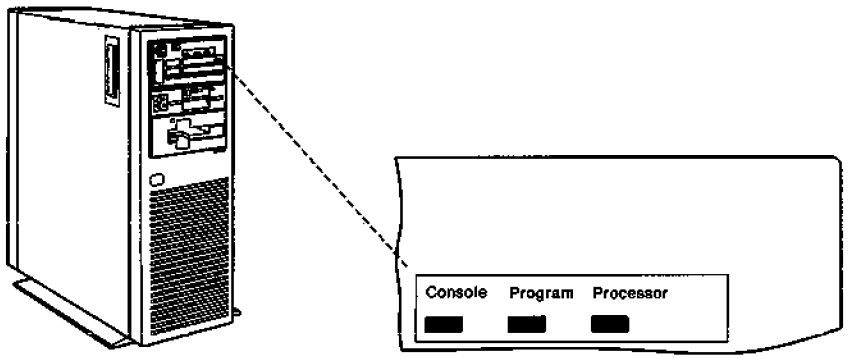
1. Type CNFIGSSP at the command entry screen and press the Enter key.
2. Verify the configuration of the alternative console. (See the manual *Changing Your System Configuration*, SC21-9052.)

If there is still a problem, call for software service.

Chapter 3. You Cannot Power On the System

3.1

Are any red lights on?

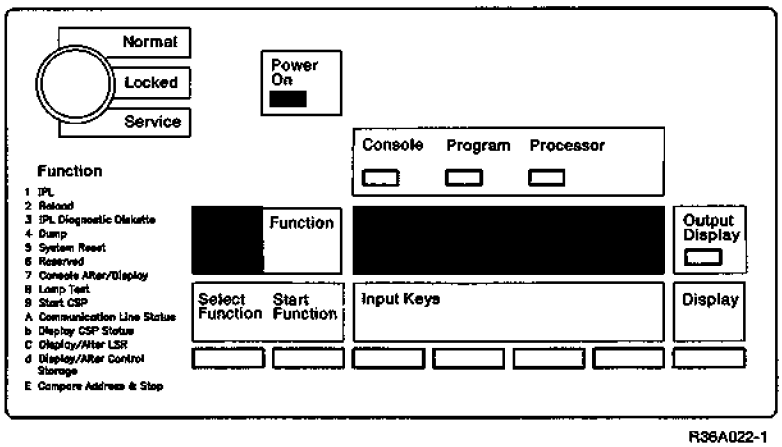


Yes
↓
2.1

No
↓
3.2

3.2

Is the green Power On light on?

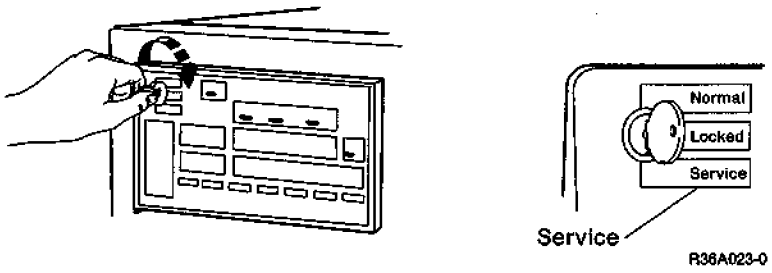


Yes
↓
3.3

No
↓
3.8

3.3

Turn the Security switch to the Service position.

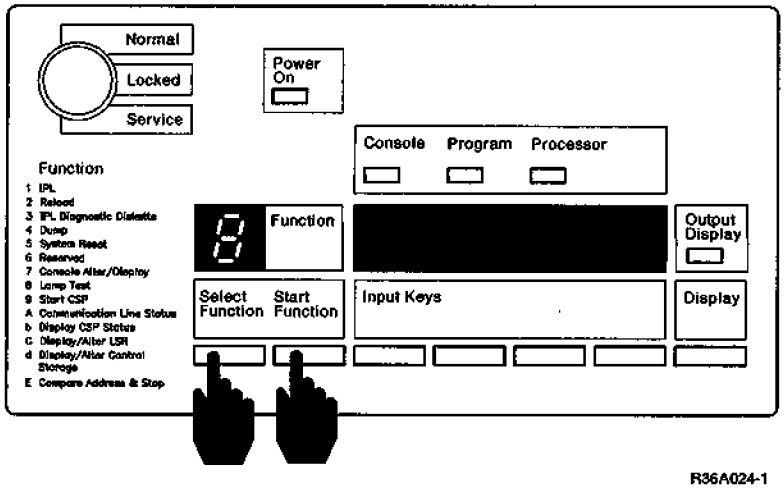


↓
3.4

3.4

Do the following:

1. Press the Select Function key until 8 is in the Function display.
2. Press the Start Function key to test the control panel lights.



This function will test all lights and displays on the system control panel to be sure they are working.

The 8 should blink once in the Function display if the function has started.

Were you able to select function 8 and then start the function?

Yes
↓
3.6

No
↓
3.5

3.5

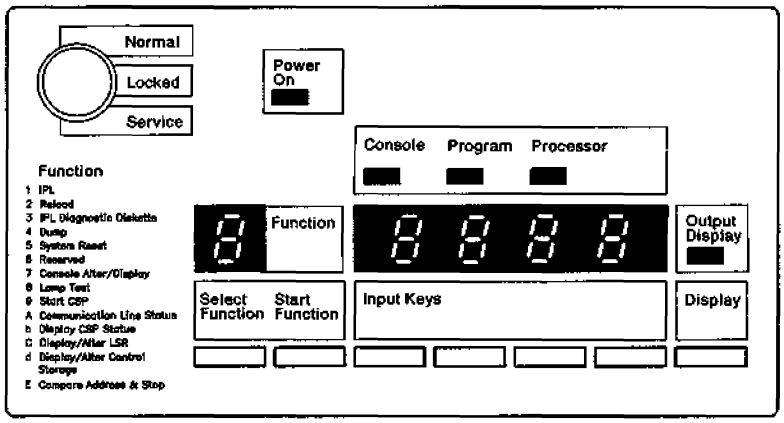
Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record on SRC of E050 on the form and the time the problem happened. (See note.)
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: This SRC is not displayed on the system control panel or a display station, but should be reported when you call for hardware service.

3.6

All of the control lights should come on and remain on. An 8 should be displayed in the Function display and also in all positions of the Output display.



R36A025-1

Do all control panel lights come on and do 8s appear in all positions of both displays?

Yes	No
↓	↓
3.36	3.7

3.7

The lamp test failed.

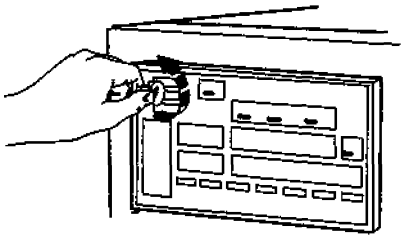
Do the following:

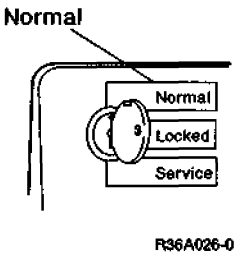
1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record on SRC of E051 on the form and the time the problem happened. (See note.)
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: This SRC is not displayed on the system control panel or a display station, but should be reported when you call for hardware service.

3.8

Make sure that the Security switch is set to the Normal position.





If the Security switch is in the Locked position, you will not be able to power on the system.

Is the Security switch set to the Normal position?

Yes	No
↓	↓
3.10	**3.9**

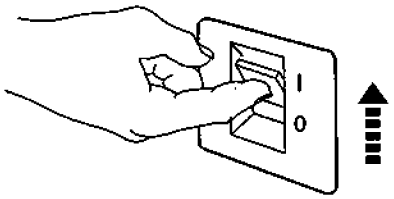
3.9

Turn the Security switch to the Normal position. You should be able to power on the system and resume normal operations.

End problem determination.

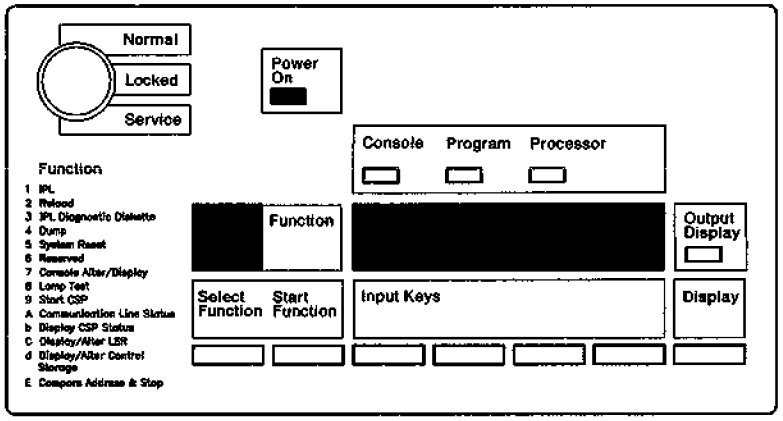
3.10

Set the Power switch to the | position.



R36A027-0

Does the green Power On light come on and remain on?



R36A022-1

Yes
↓
3.24

No
↓
3.11

3.11

Make sure that the system power cord is securely plugged into the system and into the power outlet.

Is the system power cord securely plugged into both the system and the power outlet?

Yes
↓
3.13

No
↓
3.12

3.12

Do the following:

1. Plug the system power cord into the system or power outlet.
2. You have corrected the problem. You should be able to start the system as usual.
3. End problem determination.

3.13

Make sure that:

1. Power is available at the power outlet (your building maintenance department may have to do this for you).
2. If power is not available, check the circuit breaker for the power outlet to see if it is tripped (your building maintenance department may have to do this for you).

Is the circuit breaker for the power outlet tripped?

Yes	No
↓	↓
3.14	**3.23**

3.14

Do the following:

1. Reset the circuit breaker for the power outlet to the On position.
2. Set the Power switch to the | position.

Does the green Power On light come on?

Yes	No
↓	↓
3.15	**3.16**

3.15

You have corrected the problem. You should be able to start the system as usual.

End problem determination.

Additional Information: If this problem occurs again, it is possible that a power problem is causing the circuit breaker for the power outlet to turn off the power to the system.

3.16

Check the circuit breaker for the power outlet again.

Is the circuit breaker tripped again?

Yes	No
↓	↓
3.17	3.23

3.17

Unplug the system power cord from the power outlet and reset the circuit breaker.

Did the circuit breaker trip again?

Yes	No
↓	↓
3.18	3.19

3.18

Contact your maintenance department and report you have a power problem.

End problem determination.

3.19

Do the following:

1. Set the power switch to the O position.
2. Plug the system power cord into the power outlet.
3. Check the circuit breaker again.

Did the circuit breaker trip again?

Yes	No
↓	↓
3.21	3.20

3.20

Do the following:

1. Set the power switch to the | position.
2. Check the circuit breaker again.

Did the circuit breaker trip again?

Yes	No
↓	↓
3.22	3.14

3.21

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record that the Power On light is off and the power switch in the O position. Record an SRC of 9902 on the form and the time the problem happened. (See note.)
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: This SRC is not displayed on the system control panel or a display station, but should be reported when you call for hardware service.

3.22

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record that the circuit breaker for the power outlet trips when the power switch is to the position. Record an SRC of 9903 on the form and the time the problem happened. (See note.)
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: This SRC is not displayed on the system control panel or a display station, but should be reported when you call for hardware service.

3.23

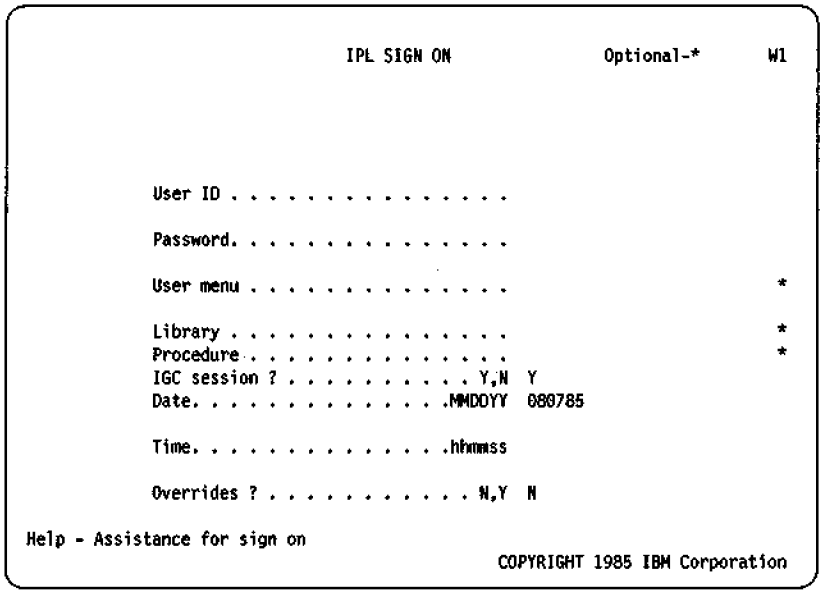
Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record that the Power On light is not on but you have power available at the power outlet for the system. Record an SRC of 9901 on the form and the time the problem happened. (See note.)
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: This SRC is not displayed on the system control panel or a display station, but should be reported when you call for hardware service.

3.24

The IPL Sign On display appears at the system console if the system is operating correctly. (You may have to wait up to 10 minutes for this display to appear.)



Did you get the IPL Sign On display?

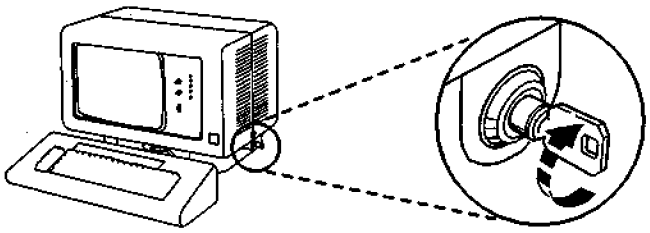
Yes	No
↓	↓
3.30	**3.25**

The display shown is the standard sign-on display for the system. Your display can have different prompts than the ones shown.

3.25

The display station Brightness control may be turned down too far for the sign-on display to appear. Make sure that the Brightness control is set so that the images can be seen on the screen.

If the system console is equipped with a keylock, make sure that the keylock is unlocked. (Continue with this step if your system console does not have a keylock.)

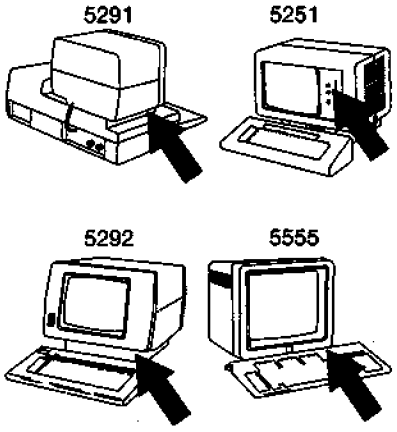


R36A028-0

Did the IPL Sign On display appear?

Yes	No
↓	↓
3.30	**3.26**

Locations of some display station brightness controls.



R36A029-1

You may have to refer to the display station operator's guide for more information about the screen brightness adjustment and the keylock feature.

3.26

Is the SYS-0019 message displayed at the system console?

Yes	No
↓	↓
3.27	**3.28**

3.27

The system has detected a problem during the initial program load.

Do the following:

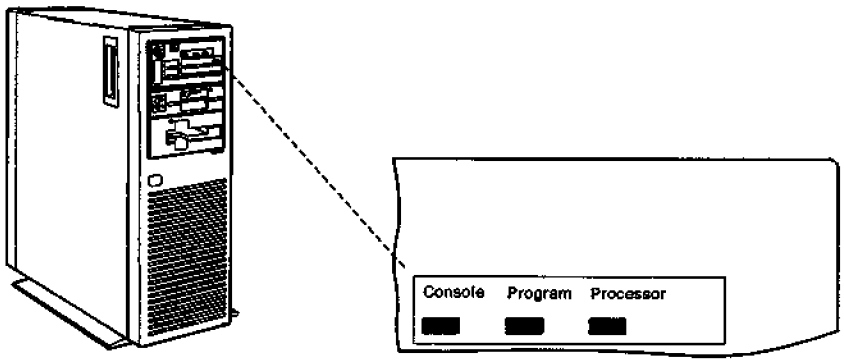
1. Record all codes shown on the display with the SYS-0019 message.
2. Use the *System Messages* manual to look up the SYS-0019 message. The codes you recorded determine whether you can solve the problem by yourself, or whether you will have to call for service.
3. End problem determination.

At least one four-digit code will be shown on the display if you have the SYS-0019 message.

Note: The codes shown with the SYS-0019 message will tell you where the system found a problem. If a code indicates a problem with an attached device, go to the problem determination procedures for that device for help.

3.28

Are any red lights on now?



Yes	No
↓	↓
2.1	3.29

3.29

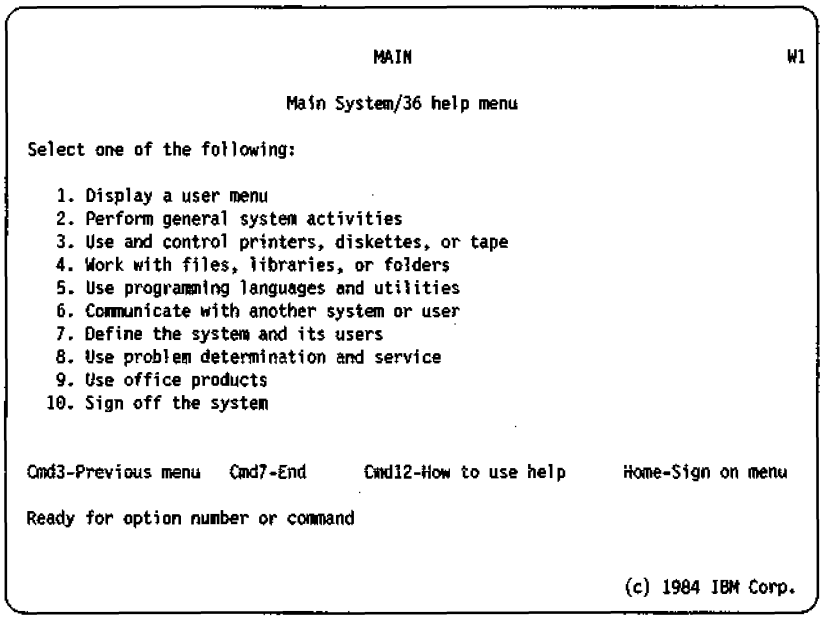
Is your system console attached to the system unit through a conversion device?

Yes	No
↓	↓
3.38	3.39

A conversion device, possibly a protocol converter, may be attached to the System/36 by twinaxial cable. Attached to the conversion device may be one or more work stations.

3.30

Can you sign on the system and get to the display that allows you to enter commands to the system?



The display shown is the standard menu for the system. Your system may use a different menu than the one shown.

Yes
↓

No
↓
3.31

The system has successfully been started.

End problem determination.

3.31

Did your user ID appear on the IPL Sign On display when you used the keyboard of the system console?

Yes
↓
3.32

No
↓
3.33

Note: You are trying to determine whether the keyboard is working correctly.

3.32

Is either of the following messages displayed on the system console?

- File rebuild running
- Folder rebuild running

Yes	No
↓	↓
3.35	3.40

3.33

The system console is not operating correctly.

Do the following:

1. Power off the system console.
2. Make sure that the keyboard cable is securely plugged into the display station. Unplug the keyboard cable from the display station and then plug it in again. (Most IBM display stations have keyboards that plug into the display unit.)
3. Power on the system console.

Can you now sign on using the IPL Sign On display?

Yes	No
↓	↓
	3.34

You probably had a loose keyboard cable.

Complete the sign-on steps and start the system in the usual manner.

End problem determination.

Note: If the system console is an IBM Personal Computer, go to the personal computer problem determination procedures to check for correct operation. You must also start the IBM Personal Computer 5250 emulation program again.

3.34

The system console is not operating correctly.

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record that the keyboard of the system console is not working.
3. Call for hardware service for the system console. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: You should be able to finish starting the system by replacing the system console with another display station (makes sure that you set the address to 0), or by powering off the system console and entering the *CONSOLE* command at the alternative system console.

3.35

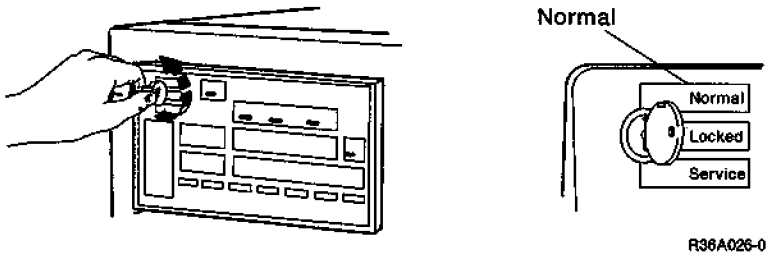
File rebuild and folder rebuild procedures are run each time you perform an initial program load. These procedures may take up to 15 minutes to complete.

Has the rebuild procedure been running at least 15 minutes?

Yes	No
↓	↓
7.13	3.37

3.36

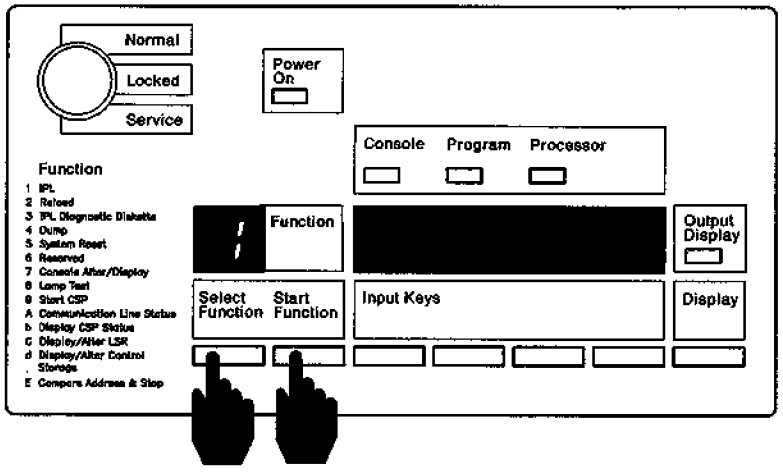
Turn the Security switch to the Normal position.



Do the following:

1. Press the Select Function key.
2. Press the Start Function key to do an initial program load.

When the Security switch is in the Normal position, you should get a 1 displayed in the Function display when you press the Select Function key.



Continue
↓
3.24

3.37

Wait at least 15 minutes to allow the rebuild procedure to complete.

Did the rebuild procedure complete?

Yes	**No**
↓	↓
End problem determination.	**7.13**

3.38

You need to determine if the conversion device is causing the problem.

Use the problem determination procedures in the conversion device manuals to determine if the conversion device is working correctly.

If this corrects the problem, end problem determination. Otherwise continue with the next step.

↓
3.39

3.39

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened.
3. Call for hardware service.
4. End problem determination.

3.40

The system is not operating correctly.

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record that you cannot start the system. Also record that you were able to respond to the IPL Sign On display, but that you couldn't get to the display that allows you to enter commands to the system.
3. Record the status (on, off, or blinking) of all lights and displays on the control panel.
4. Call for software service. Save the completed "Problem Summary Form" for the service representative.
5. End problem determination.

Chapter 4. A Job Produced No Output or Incorrect Output

4.1

Do you have one of the following screens displayed?

- Command
- Menu
- Sign On

Yes	No
↓	↓
4.2	4.3

4.2

Does the display station that started the job have an Input Inhibited indicator on?

Yes	No
↓	↓
4.3	4.4

The Input Inhibited indicator appears on the right side of the screen on the 5251 Display Station and on the bottom of the screen for most other IBM display stations.

4.3

Can you do work from the system console? (See note.)

Yes	No
↓	↓
4.30	1.7

Note: You are trying to determine if the system console can interact with the system. For example, can you:

- Sign on?
- Sign off?
- Change from command mode to console mode?
- Answer a message?
- Enter a command or procedure?

4.4

What type of output was the job to produce?

Printed Output	Displayed Output	Output to Disk, Diskette, or Magnetic Tape
↓	↓	↓
4.7	4.6	4.5

Output is data that has been processed. Output can be printed on a printer, displayed on a display station, or placed on disk, diskette, or magnetic tape.

4.5

The messages you receive that are associated with this type of problem should help you solve the problem. If you receive no messages, you should discuss the problem with the applications programmer.

An applications programmer should be contacted if the application is an IBM licensed application program or if there are questions on applications programming or general system operation.

If the applications programmer suspects problems with the licensed system programs, call for software service.

End problem determination.

4.6

It seems that you did not receive the displayed output you expected. This indicates a problem with the job being run. You should discuss this problem with the applications programmer.

An applications programmer should be contacted if the application is an IBM licensed application program or if there are questions on applications programming or general system operation.

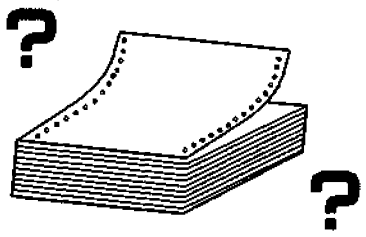
If the applications programmer suspects problems with the licensed system programs, call for software service.

End problem determination.

Note: Some system support program procedures use the syslist device to produce output. The syslist device may have been turned off. The *SYSLIST CRT* command can be used to restore the display station as the syslist output device. The job could then be run again.

4.7

Did you receive any printed output from the job?



R36A030-0

YES	NO	I received the output, but there was no printing on the pages or the printing was of poor quality.
↓	↓	↓
4.9	4.10	4.8

4.8

One of the following items is most likely the cause of the problem: (See note.)

1. The printer forms thickness control is set incorrectly for the forms you are printing on. (Not all printers have a forms thickness control.)
2. The printer ribbon is jammed, dry, or worn out.
3. The printer requires some sort of adjustment.

Were you able to correct the problem?

Yes	No
↓	↓
End problem determination	4.22

Note: The operator's guide for the printer usually explains how to set the forms thickness control, how to replace the printer ribbon, and how to make other adjustments.

The Print key can sometimes be used to check the operation of the printer. The printout can be compared with the data on the display screen to see if the printer is operating correctly.

4.9

Because each program can override the printer switch settings and control the printing of output, you will have to discuss the problem with the applications programmer. (Save the output you have for the applications programmer.)

An applications programmer should be contacted if the application is an IBM licensed application program or if there are questions on application programming or general system operation.

If the applications programmer suspects problems with the licensed system programs, call for software service.

End problem determination.

4.10

Enter the *STATUS JOBQ* command (*D J*) from the system console to display the Job Queue Status display.

What happens?

The Job Queue Status display appears.

```
    Complete                  JOB QUEUE STATUS                              W1
    Jobs in Queue:   3 of   20        JOBQ PRTY  STOPPED  : 0
       Max Active Jobs:1    Max for PRTY 5:50 4:50 3:50 2:50 1:50 0:50
                                                          PRIORITY
 POS  JOBNAME   PROC/DOC     LIBR/FLDR USER       STATUS     JOBQ PROC
   1  W3124228  PAYROLL      FRAN.A2   JPF         --         5    N
   2  W2133149  LISTLIBR     #LIBRARY  ALG         HELD       4    N
   3  W2201718  TIME         CARL.1    CAB         --         4    N



 Cmd7-End      Cmd8-Help      Cmd15-Update      Cmd16-Restart      Roll-Page
--------------------------------------------------------------------------------
                                JOBQUEUE
                          Jobs on the job queue
   1. Display specific job              6. Start the job queue
   2. Put a job on the queue            7. Stop the job queue
   3. Cancel a job                      8. Change position of a job
   4. Hold a job                        9. Change processing priority
   5. Release a job                    10. Change maximum active jobs
Ready for option number or command
                                                        (c) 1984 IBM Corp.
```

Display appears	**A SYS-5684 message is displayed.**
↓	↓
4.11	**4.14**

4.11

```
   Complete                  JOB QUEUE STATUS                              W1
   Jobs in Queue:   3 of   20       JOBQ PRTY  STOPPED  : 0
      Max Active Jobs:1    Max for PRTY 5:50 4:50 3:50 2:50 1:50 0:50
                                                        PRIORITY
 POS  JOBNAME   PROC/DOC    LIBR/FLDR USER      STATUS     JOBQ PROC
   1  W3124228  PAYROLL     FRAN.A2   JPF         --         5    N
   2  W2133149  LISTLIBR    #LIBRARY  ALG       HELD         4    N
   3  W2201718  TIME        CARL.1    CAB         --         4    N



 Cmd7-End      Cmd8-Help      Cmd15-Update      Cmd16-Restart      Roll-Page
--------------------------------------------------------------------------------
                                JOBQUEUE
                          Jobs on the job queue
   1. Display specific job              6. Start the job queue
   2. Put a job on the queue            7. Stop the job queue
   3. Cancel a job                      8. Change position of a job
   4. Hold a job                        9. Change processing priority
   5. Release a job                    10. Change maximum active jobs
Ready for option number or command
                                                    (c) 1984 IBM Corp.
```

Does the job appear on the Job Queue Status display? (See note.)

Yes	No
↓	↓
4.12	**4.14**

You can identify a job if you know the display station-ID of the display station that started the job (W2, for example) and the approximate time the job was started. These two pieces of information go together to form the job name. (For example, a job name of W2133149 means that the job was started from display station W2 at 1:31 p.m. [13 hours, 31 minutes, and 49 seconds].)

You can also identify a job if you know either the procedure name or the ID of the user who started the job.

Note: Be sure to page through all the status displays, using the roll keys.

4.12

You did not receive any output from the job because the job is still on the job queue. This may or may not be normal operation. Do the following to ensure that the job will run from the job queue:

1. If the job status is Held, release the job using option 5 on the Job Queue Status display.
2. Use the *CHANGE JOBQ* command to increase the number of job queue jobs that can run concurrently. This ensures that your job is not waiting for a previous job queue job to finish running.
3. Start the job using option 6 of the Job Queue Status display. Start the job by specifying its *Jobname*.

The job should now be able to run from the job queue (based on the order of the job on the job queue and the priority of the job.) Wait for a few minutes, then answer the following question.

Is this job still not running from the job queue?

Yes	No
↓	↓
4.13	**End problem determination**

These tasks are described in the manual *Operating Your Computer—5363*, SC21-9685.

4.13

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record that jobs are not running from the job queue. Also record that the job queue is started and that the job is not held.
3. Call for software service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

4.14

Enter the *STATUS USERS* command (*D U*) to display the Status Users display.

```
Complete                          STATUS USERS                                W1
JOB       PROC     PROGRAM   STATUS   ATTRIBUTES   PRTY   RGN   PGM  BUFF
W1200223  HELP     $CPPE     ACTIVE       JBQ      NORM   24K   14K  ----
W1200307  HELP     $HIST     ACTIVE       SRT      NORM   24K   18K  ----
W1195750  HELP     $USAF     ACTIVE       SRT      NORM   24K   16K  ----
W1195631  HELP     $LABEL    ACTIVE       SRT      NORM   24K   24K  ----




  Cmd7-End      Cmd8-Help      Cmd15-Update      Cmd16-Restart      Roll-Page
--------------------------------------------------------------------------------
                                   JOBS
                          Control Jobs and the job queue
    1. Display specify job                6. Change processing priority
    2. Jobs on the job queue              7. prevent jobs from starting
    3. Stop a job                         8. Allow jobs to start
    4. Restart a stopped job              9. Prevent SSP-ICF jobs
    5. Cancel a job                      10. Allow SSP-ICF jobs to start
Ready for option number or command

                                                        (c) 1984 IBM Corp.
```

You can identify a job if you know the display station-ID of the display station that started the job (W2, for example) and the approximate time the job was started. These two pieces of information go together to form the job name. (For example, a job name of W3141121 means that the job was started from display station W3 at 2:11 p.m. [14 hours, 11 minutes, and 21 seconds.])

You can also identify a job if you know either the procedure name or the ID of the user who started the job.

Does the job appear on the Status Users display? (See note.)

Yes	No
↓	↓
4.15	**4.18**

Note: Be sure to page through all the status displays, using the roll keys.

4.15

You did not receive any output from the job because the job is still running. Look at the status of the job.

```
Complete                        STATUS USERS                                  WI
JOB       PROC     PROGRAM   STATUS   ATTRIBUTES   PRTY   RGN   PGM  BUFF
W1200223  HELP     $CPPE     ACTIVE       JBQ      NORM   24K   14K  ----
W1200307  HELP     $HIST     ACTIVE       SRT      NORM   24K   18K  ----
W1195750  HELP     $USAF     ACTIVE       SRT      NORM   24K   16K  ----
W1195631  HELP     $LABEL    ACTIVE       SRT      NORM   24K   24K  ----




  Cmd7-End      Cmd8-Help      Cmd15-Update      Cmd16-Restart      Roll-Page
--------------------------------------------------------------------------------
                                  JOBS
                        Control Jobs and the job queue
    1. Display specify job                6. Change processing priority
    2. Jobs on the job queue              7. prevent jobs from starting
    3. Stop a job                         8. Allow jobs to start
    4. Restart a stopped job              9. Prevent SSP-ICF jobs
    5. Cancel a job                      10. Allow SSP-ICF jobs to start
Ready for option number or command

                                                        (c) 1984 IBM Corp.
```

Is the status of the job ACTIVE?

Yes	No
↓	↓
4.16	**4.17**

4.16

The active job is still running. This may or may not be normal for the job. You should discuss this problem with the applications programmer.

An applications programmer should be contacted if the application is an IBM licensed application program or if there are questions on application programming or general system operation.

If the applications programmer suspects problems with the licensed system programs, call for software service.

End problem determination.

The job may give you an idea of what time the job started running.

4.17

You have not received any output from this job because processing has been stopped. See the manual *Operating Your Computer—5363*, SC21-9685, for information about displaying the status of jobs that are running, and correct the condition that is causing the job to be other than *ACTIVE*.

End problem determination.

4.18

Enter the *STATUS PRT* command (*D P*) to display the Spool File Status display.

What happens?

The Spool File Status display appears.

```
Complete                    SPOOL FILE STATUS                              W1
              BLOCKS AVAILABLE;  2088 OF   2400                 ---PAGES---
 POS SP-ID  PROC     JOBNAME   USER    PRINTER  ID PRTY FORM COPY  TOTAL   WRT
   1 SP0000          W1082003  PROB534 PRINTKEY P1  1H  0001    1      1
   2 SP0001          W2082033  JPF543  PRINTKEY P1  1H  0001    1      1
   3 SP0003 LISTLIBR W5091027  WRN500  $SYSLIST P2  1   0002    1     17
   4 SP0006          W4094503  ALG1A3  SYSPRINT P1  1   0001    4      4



  Cmd7-End      Cmd8-Help      Cmd15-Update      Cmd16-Restart      Roll-Page
--------------------------------------------------------------------------------
                              SPOOLJOB
                      Control printing (spool file)
    1. Display printer status          5. Change entries
    2. Cancel entries                  6. Copy or display entries
    3. Hold entries                    7. Control spool writer
    4. Release entries                 8. Restart spool writer

Ready for option number or command


                                                        (c) 1984 IBM Corp.
```

Display appears
↓
4.20

A SYS-5700 message is displayed.
↓
4.19

4.19

You have to discuss the problem of no output with the applications programmer.

An applications programmer should be contacted if the application is an IBM licensed application program or if there are questions on application programming or general system operation.

If the applications programmer suspects problems with the licensed system programs, call for software service.

End problem determination.

4.20

```
Complete                    SPOOL FILE STATUS                              W1
              BLOCKS AVAILABLE;  2088 OF   2400                  ---PAGES---
 POS SP-ID  PROC     JOBNAME   USER    PRINTER  ID PRTY FORM COPY  TOTAL   WRT
   1 SP0000          W1082003  PR08534 PRINTKEY P1  1H  0001    1      1
   2 SP0001          W2082033  JPF543  PRINTKEY P1  1H  0001    1      1
   3 SP0003 LISTLIBR W5091027  WRN500  $SYSLIST P2  1   0002    1     17
   4 SP0006          W4094503  ALG1A3  SYSPRINT P1  1   0001    4      4



  Cmd7-End      Cmd8-Help      Cmd15-Update      Cmd16-Restart      Roll-Page
--------------------------------------------------------------------------------
                                SPOOLJOB
                        Control printing (spool file)
    1. Display printer status           5. Change entries
    2. Cancel entries                   6. Copy or display entries
    3. Hold entries                     7. Control spool writer
    4. Release entries                  8. Restart spool writer

Ready for option number or command

                                                          (c) 1984 IBM Corp.
```

You can identify a job if you know the display station-ID of the display station that started the job (W2, for example) and the approximate time the job was started. These two pieces of information go together to form the job name. (For example, a job name of W5091027 means that the job was started from display station W5 at 9:10 p.m. [09 hours, 10 minutes, and 27 seconds.])

You can also identify a job if you know either the procedure name or the ID of the user who started the job.

Does the job appear on the Spool File Status display? (See note.)

Note: Be sure to page through all the status displays, using the roll keys.

Yes	No
↓	↓
4.21	**4.23**

4.21

A job will remain on the Spool File Status display until it has completed printing. This is normal system operation. Make sure that none of the following situations are stopping the job from printing:

Situation	How to Check
1. The job has not finished running and is still producing the spool file entry.	See the Spool File Status display. Asterisks (****) will appear in the total pages column if the spool file entry is still being produced.
2. The job is held.	See the Spool File Status display. An H will appear in the PRTY column if the job is held.
3. The spool writer is not started	See the Spool Writer Status display.
4. The spool writer is waiting for a message to be answered.	See the Spool Writer Status display.
5. A forms type mismatch is stopping the job from printing.	Compare the forms from the Spool File Status display with the forms from the Spool Writer Status display.
6. The printer is varied offline.	See the Status Work Station display.
7. The printer is not operational.	Look at the printer. The printer should be powered on and *ready*. The printer should not have any check lights on or error codes displayed.

R36A031-0

Is there still a problem?

Yes
↓
4.22

No
↓
End problem determination

These tasks are described in the manual *Operating Your Computer – 5363*, SC21-9685.

4.22

The job should print, once you have checked that none of the items in the previous step are stopping the job from printing. If the job still will not print, you can either send the job to another printer (see the note to the right) or continue with the online problem determination aids. The online problem determination will help you verify that the printer is correctly configured, has the correct work station address, and is properly communicating with the system. Do the following to begin the online problem determination aids:

Enter the PROBLEM command on the entry line of the system console (in command mode). The online problem determination aids, if installed on your system, will help you with these problems. You should continue by following the instructions on the online problem determination displays.

Note: If you find that the online problem determination aids are not installed on your system, you should locate the appropriate system support program diskette, insert it into the diskette drive, and respond to the system message with a 0 option. This will install the problem determination aids on your system. (The system support program diskettes were shipped to you as Program 5727-SS6.) Call for hardware service if you cannot install or run the problem determination aids on your system.

Note: You may be able to print the spool file entries on another printer, if you have another printer available. To do this, key in the *CHANGE ID* command and press the Help key. You will be prompted for the information.

Another way to begin the online problem determination aids, is to select the *Problem determination and service* option from the Main menu and then the *Online problem determination* option from the Probserv menu.

4.23

Type HISTORY and press the Help key. The History Procedure display will appear.

```
                          HISTORY PROCEDURE                    Optional-*

                 Lists, copies, or erases history file entires


Function to be run  . . . . . .  CRT<LIST,COPYPRT,COPYSYS,ERASE  CRT

Entries to be selected by:
  User  . . . . . . . . . . . . . . . . . . .  USER,ALL,user ID  USER
  Display station . . . . . . . . . . . . . .  ALLWS,display ID  ALLWS
  Procedure or program. . . . . . . . . .  ALLENTS,EONLY,procname  ALLENTS
  Date in system format . . . . . . . . . .  ALLDAYS,TODAY,date  ALLDAYS
  Beginning after a specific time . . . . . . . . . . . .  hhmmss  000000
  Ending before a specific time . . . . . . . . . . . . .  hhmmss  235959


Cmd3-Previous menu
                                                    (c) 1984 IBM Corp.
```

↓
4.24

4.24

The History Procedure display will help you search for the job that produced no output.

Do the following in response to the History Procedure display:

1. Change USER to ALL.
2. Change ALLENTS to EONLY.
3. Change ALLDAYS to TODAY (or to the date of the job if it was run on a day other than today).
4. Change the beginning and end times if you know, more specifically, when the job was run.
5. Press the Enter key two times to run the history procedure.

```
                          HISTORY PROCEDURE

                 Lists, copies, or erases history

Function to be run  . . . . . .  CRT<LIST,COPYPRT

Entries to be selected by:
  User  . . . . . . . . . . . . . . . . . . .  US
  Display station . . . . . . . . . . . . . .  AL
  Procedure or program. . . . . . . . . .  ALLENTS,
  Date in system format . . . . . . . . . .  ALLD
  Beginning after a specific time . . . . . . . . .
  Ending before a specific time . . . . . . . . . .


Cmd3-Previous menu
```

↓
4.25

4.25

The next display you see contains jobs that ran to completion (*EJ) and jobs that finished printing (*EP). Scan the list to find the job that you are missing printed output for.

Did you find that the job ran to completion (*EJ)?

Yes	No
↓	↓
4.26	4.27

4.26

Scan the list to see whether the job that ran to completion also finished printing. (The *EP entry would follow the *EJ entry.)

Did the job finish printing (*EP)?

Yes	No
↓	↓
4.28	4.29

4.27

The system has no record of the job completing. This indicates that the job was never run or the job was canceled before completing. This could also indicate a problem with the applications program. You should discuss the problem with the applications programmer.

An applications programmer should be contacted if the application is an IBM licensed application program or if there are questions on application programming or general system operation.

If the applications programmer suspects problems with the licensed system programs, call for software service.

End problem determination.

4.28

The job ran to completion and printed. It is likely that the job printed but the output was lost. You should look for the printed output and discuss the problem with the applications programmer if you could not find the output that this job produced.

An applications programmer should be contacted if the application is an IBM licensed application program or if there are questions on application programming or general system operation.

If the applications programmer suspects problems with the licensed system programs, call for software service.

End problem determination.

4.29

The job ran to completion but the system has no record of the job printing. This indicates that the spooled print entry was canceled before printing completed. This could also indicate a problem with the application program. Contact the programmer of the application for further assistance.

An applications programmer should be contacted if the application is an IBM licensed application program or if there are questions on applications programming or general system operation.

If the applications programmer suspects problems with the licensed system programs, call for software service.

End problem determination.

Note: Some system support program procedures use the syslist device to produce output. The syslist device may have been turned off and the output lost. The *SYSLIST PRINTER* command can be used to restore the system printer as the syslist output device.

4.30

You must now make sure that all messages have been answered before you continue any further with this problem determination manual. (An unanswered message could be the cause of the problem.)

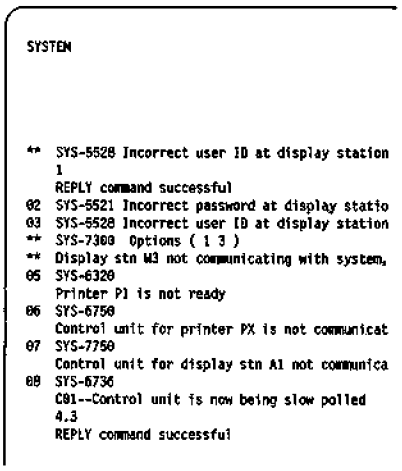
Make sure that all outstanding messages have been answered. If this solves the problem, end problem determination; otherwise, continue with the next step.

↓
4.31

You can tell if a message has been answered by looking at the first two characters to the left of the message. (You have to be in console mode at the system console to view this display.)

**means the message has been answered.

01, 02, 04 and so on, means that the message is outstanding (has not been answered).



To answer a message, enter the first two characters that are displayed to the left of the message. If an option selection is required, enter the first two characters to the left of the message, a comma, and the appropriate option. The manual *Operating Your Computer—5363*, SC21-9685 has detailed information about answering messages. Additional information on messages and options is available in the *System Messages*, SC21-7938.

4.31

Go to the system console or any other working display station.

To display the status of the failing display station, type

D S,XX (XX = ID of failing display)

at the command entry screen and press the Enter key.

What is displayed in the upper left of the screen?

Job/Session Values	**Job Information**
↓	↓
4.32	**4.33**

4.32

The problem appears to be the display that initiated the job.

Do the following:

1. Go to the command entry screen at the system console.
2. Type PROBLEM and press the Enter key.
3. Select the option for a work station problem.
4. Continue, using the online problem determination procedures.

You have completed problem determination in this manual.

4.33

The status of your job is displayed. (See note.) Use this information to determine the source of the problem.

You may have to consult with the system operator or applications programmer to determine what is causing the problem.

End problem determination.

Note: The Cmd8 key will display the help information for this screen. For example, a status of *Initiator waiting for resources* can be caused by other programs using files that are required by your program.

Chapter 5. Jobs Are Running Slower Than Usual

5.1

This chapter will help you in two ways:

1. "Events a System Operator Can Control" (step 5.2) will help you vary the resources of the system to improve performance. This section can help you make the best of a temporary situation.
2. "Analyzing System Activity" (step 5.4) will introduce you to the system measurement facility. The system measurement facility can help you improve the long-term performance of your system.

What type of performance gain are you looking for?

A Temporary Performance Gain	**A Long-Term Performance Gain**
↓	↓
5.2	**5.4**

You may also want to talk to your applications programmer about the jobs that are running slower than usual.

5.2

Events a System Operator Can Control

A system operator can control the priority of any job running on the system. (The STATUS USERS command (DU) can show the jobs that are running and the priority at which they are running.) This may help you make the best of an unusual situation (a special job or end-of-month report, for example.) However, the system measurement facility should be used for more permanent performance gains.

Here are some ways a system operator can make jobs run faster:

- You can reduce the priority of jobs run from the job queue so that interactive jobs run faster (PRTY command).
- You can stop the job queue so that the full speed (throughput) of the system is used for processing interactive jobs (STOP JOBQ command).

↓
5.3

5.3

Here are some other ways a system operator can control the system to make jobs run faster:

- You can cancel or stop jobs that are running to allow other jobs to be completed faster (CANCEL or STOP commands). You may need to get permission from the owner of the job before you cancel or stop the job.
- You can spool the printing of jobs and control the order in which they print (HOLD or CHANGE commands). This can allow any particular job you want to print before any of the other spooled jobs.
- You can control the priority of a spool writer for a printer (CHANGE command). This can increase the printing speed of all jobs running on the printer you specify.
- You can send jobs to the job queue and control the order in which they run (HOLD, JOBQ, and PRTY commands).
- You can have a programmer include a WAIT OCL statement in his program to cause the job to run at night or any other time system activity is low.

See either the manual *Operating Your Computer—5363*, or the *System Reference* manual for information on the use of these commands.

End problem determination.

5.4

Analyzing System Activity

The system measurement facility can be used to monitor system activity while jobs are being processed. The printed report it provides can help an application programmer discover which system resources are being used at near-maximum capacity, and therefore limiting the speed of the system.

The system measurement facility reports can be run at different times, then compared with one another. Often, comparison of reports can lead to modifications of the system configuration, job scheduling, or programming style that will *fine-tune* the system for the applications you run.

Refer to the *System Measurement Facility Guide*, SC21-9025 for instructions on how to start and stop the program and how to print the report. The guide can also help an applications programmer interpret the printed results.

End problem determination.

Chapter 6. You Have a Mechanical Problem with Your System

6.1

You have detected a mechanical problem with your system, which could be noisy fans or motors.

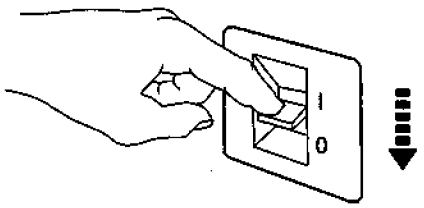
Is the problem getting worse?

Yes	No
↓	↓
6.2	6.3

6.2

Caution: Check that there is no other activity on the system before removing power.

Set the power switch to the O position.



R36A040-0

Did the system power off?

Yes	No
↓	↓
6.3	6.4

6.3

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record that you are having mechanical problems with the system which could be noisy fans or motors. Report an SRC of 990B on the form and the time the problem happened. (See note.)
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: This SRC is not displayed on the system console or a display station, but the SRC should be reported when you call for hardware service.

6.4

You may continue operating the system. If it is necessary to power off the system, unplug the system power cord from the power outlet.

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were doing when the problem happened. Record an SRC of 990C on the form and the time the problem happened. (See note.)
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Note: This SRC is not displayed on the system console or a display station, but should be reported when you call for hardware service.

Chapter 7. You Have a Disk Problem

Disk (F1) is the system internal storage for information (files, libraries, and folders). It is not the removable diskette device.

7.1

Can you do work from the system console? (See note.)

Yes	No
↓	↓
7.2	7.7

Note: You are trying to determine if the system console can ***interact*** with the system. For example, can you:

- Sign on?
- Sign off?
- Change from command mode to console mode?
- Answer a message?
- Enter a command or procedure?

7.2

Did you receive a system message indicating any of the following?

- A disk error
- A problem with a file, folder, or library
- A problem with a printer
- A print spool problem
- A job queue problem

Yes	No
↓	↓
7.3	7.10

7.3

Does the system message indicate a print spool or job queue problem?

Yes	No
↓	↓
7.4	7.16

7.4

The problem may be one of the following situations. Check the table below for a situation that is likely to be occurring on your system and perform the action needed to fix the problem.

Situation	Action Needed
Spool writer or job queue is stopped or an entry is held.	You can correct the problem from any of the following status displays. Enter command: Status PRT (D P) or Status WRT (D WRT) or Status JOBQ (D J) If you can correct the problem from one of the status displays, end problem determination.
Printer is not ready.	Check the printer for mechanical problems (paper jam, ribbon failure, and so on). Make the printer ready. (Most printers have a ready indicator.) End problem determination.
Personal computer printer is not ready.	Check the 5250 printer emulation screen. Perform a stop of the 5250 printer emulation screen, then a start to reset any errors. If any error indications appear on the 5250 printer emulation screen, make a note of the error. Use that symptom and continue problem determination using the personal computer problem determination manuals. End problem determination.

R36A032-0

If you need more information on how to perform a stop and start of 5250 printer emulation, see the appropriate manual: *5250 Emulation Program, Version 2.0 User's Guide* or *Enhanced 5250 Emulation Program, Version 2.1 User's Guide*.

If the table does not describe the situation occurring on the system, continue with the next step.

↓
7.5

7.5

Does the system message indicate that a printer is not communicating with the system?

Yes	No
↓	↓
7.6	7.13

7.6

Do the following:

1. Go to the command entry screen at the system console.
2. Type PROBLEM and press the Enter key.
3. Select the option for a printer problem.
4. Continue, using the online problem determination procedures.

You have completed problem determination in this manual.

To begin the online problem determination aids, you can also select the *Problem determination and service* option from the Main menu and then the *Online problem determination* option from the Probserv menu.

7.7

Perform an IPL of the 5363 System Unit by doing the following:

1. Make sure the Security switch is in the Normal position.
2. Press the Select Function key until a 1 appears in the Function display.
3. Press the Start Function key.

Wait for the IPL to complete (approximately 15 minutes, depending on your system configuration). If the system starts successfully, you will get a display that allows you to enter commands.

See the manual *Operating Your Computer—5363*, SC21-9685, for more IPL information.

Did you get a Sign On display at the system console?

Yes	No
↓	↓
7.8	7.9

7.8

Complete the sign-on steps in the usual manner. Allow the system to complete the IPL with the file rebuild procedure.

Does the file rebuild procedure complete and are you able to do work from the system console?

Yes	No
↓	↓
7.2	7.13

7.9

Do the following:

1. Examine the system operator control panel and record the status (on, off, or blinking) of all lights and displays on the control panel. Record any messages displayed on the system console.
2. Determine the first applicable symptom from the Symptom Index at the front of this manual.
3. Continue problem determination using the new symptom.

7.10

Are you trying to move information to the system disk?

Yes	No
↓	↓
7.11	7.39

7.11

Has a system disk been replaced or initialized?

Yes	No
↓	↓
7.45	7.12

7.12

The system disk contains three types of information: program libraries, data files, and text folders.

1. Get the diskettes or tapes with the information you need to move to the system disk.
2. If you are not sure of the restore procedure to use for your information, use the appropriate procedure from the table to restore the missing information.

Information Type	Procedure Used to Save Information	Procedure to Restore Information
Program libraries	SAVELIBR	RESTLIBR
Library members	FROMLIBR	BLDLIBR TOLIBR
Data files	SAVE	RESTORE
Text folders	SAVEFLDR	RESTFLDR

R36A033-0

If you are not sure what information is contained on the diskettes or tape, type CATALOG at a command entry screen (options I1, T1, T2, or TC) and press the Enter key.

If you have problems restoring the information to disk, the display station Help keys are active for restore procedures or get help from your applications programmer or the supplier of your programs.

You have completed problem determination in this manual.

7.13

There maybe an unreadable disk sector on either the print spool file or the job queue file.

The recommended procedure is to delete the old print spool file and job queue file and format new print spool and job queue files.

Warning: The following steps will delete all existing jobs pending print from the print spool file and all jobs pending from the job queue file. If there are jobs pending from either source, the jobs will be lost. If the jobs can be re-created, proceed with the following steps. If you do not want to continue with the deletion and reformatting steps that follow, you should get assistance from the applications programmer or the supplier of your programs.

↓
7.14

7.14

Perform the following steps:

1. End all user activity on the System/36.
2. Turn the Security switch to the Service position.
3. Press the Select Function key until 1 is in the function light.
4. Press the Input keys until FF00 appears at the system panel.
5. Press the Start Function key.
6. When the IPL Sign On display appears, change the *Overrides* option to Y(Yes) and enter other sign-on information as required.
7. From the IPL Overrides menu, select the option to *Change print spooling status* and select the option to Cancel-Y(Yes), Delete-Y(Yes) for the spool file.
8. From the IPL Overrides menu, select the option to *Change job queue status* and select the option to Cancel-Y(Yes), Delete-Y(Yes) for the job queue.
9. From the IPL Overrides menu, select the option to *Exit overrides* and continue with the IPL.

An Input key automatically advances the numbers (1 through 9) and letters (A through F) until you release the key.

Continue

↓
7.15

7.15

When the IPL file rebuild completes, do the following:

1. Press the Select Function key until 1 is in the function light.
2. Press the Input keys until FF00 appears at the system panel.
3. Press the Start Function key.
4. When the IPL Sign On display appears, enter your normal sign-on information and press the Enter key. (This resets the overrides back to the original settings, and formats a new spool file and a new job queue.)
5. Set the Security switch back to the Normal position.

Were you able to complete all these steps successfully?

Yes

↓
7.25

No

↓
7.42

7.16

Does the system message indicate either:

- File (folder or library) not found
- File (folder or library) does not exist on disk

Yes	No
↓	↓
7.38	7.17

7.17

Type BUILD at the command entry screen and press the Enter key.

Are any error sectors identified as a result of running the BUILD procedure?

Yes	No
↓	↓
7.18	7.21

The BUILD procedure checks all of the libraries, files, and folders on disk (F1). For more information on the BUILD procedure, see the *System Reference* manual, SC21-9020.

7.18

Do the following:

- Write down the file name and sequential sector (SS) associated with each error. If file name NOFILE is displayed, press the Cmd1 key to correct the error. The error is in a sector that is not occupied by a file and no verification of the information is necessary.
- Examine the information in the error sectors that were identified when you ran the BUILD procedure. The information may not be correct. If you are sure that the information is correct or know what the information should be, make the appropriate corrections and press the Cmd1 key. Make a note next to where you wrote down the file name that this information is correct.
- If you are not sure that the information is correct or you don't know what the information should be, make a note next to where you wrote down the file name that the information is not correct. Press the Cmd3 key to bypass the error. You will have to replace this information on disk with your most recent backup (saved) copy.

Are fewer than five sectors identified as in error?

Yes	No
↓	↓
7.19	7.22

7.19

IBM-supplied system information is located on disk in members with file names beginning with #.

Do any of the file names identified when you ran the BUILD procedure (step 7.17) begin with a #?

Yes	No
↓	↓
7.26	7.20

7.20

When the BUILD procedure was run (step 7.17), were errors found associated with any files other than file name NOFILE?

Yes	No
↓	↓
7.23	7.25

7.21

The system disk information was not affected by a hardware failure.

Do you want to reload files and libraries to the system disk?

Yes	No
↓	↓
7.11	7.39

7.22

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 1 of the form, describe the problem and the function you were using when the problem happened.
3. Call for system hardware service.
4. End problem determination.

You may also want to locate and inventory backup copies of your information. You may want to save any information (using the appropriate procedures SAVE, SAVELIBR, and SAVEFLDR) for which you do not have a current backup.

See the manuals *Procedures and Commands Summary* and *Operating Your Computer—5363*, for information on the SAVE, SAVELIBR, and SAVEFLDER procedures.

7.23

The file name(s) you recorded earlier have been affected by a system disk media error.

If you were able to identify the information and correct it using the Cmd1 key, then the information is correct and you should end problem determination now.

If, in step 7.17 you used the Cmd3 key, you will have to restore your backup of this data file, text folder, or program library.

Did you use the Cmd3 key during the BUILD procedure (step 7.17)?

Yes	No
↓	↓
7.24	7.25

7.24

Locate the backup information you identified when you ran the BUILD procedure.

Use the DELETE procedure to remove the information with the error from the system disk(F1). Then use the appropriate restore procedure to move the information from your backup diskettes to the system disk. For more information on restoring information, go to step 7.17.

After you have completed deleting and restoring the information, type BUILD at the command entry screen and press the Enter key.

Are new errors identified?

Yes	No
↓	↓
7.22	**7.25**

If you do not save a copy of the information, you must either re-create the information or contact your applications programmer or whoever supplies your programs for assistance.

Older errors may be identified again, this time with file name NOFILE. If this happens, use the Cmd1 key to clear the error.

7.25

The errors have been corrected. Do the following:

1. Return to normal system activity.
2. End problem determination.

7.26

When you ran the BUILD procedure (step 7.17), was file name #CSLIB identified as one of the members in an error sector?

Yes	No
↓	↓
2.27	**7.31**

7.27

The error sector is in the area of the disk used for system microcode. This microcode must be reloaded (customized) using the configure/customize utility.

Continue

↓
7.28

7.28

Do the following:

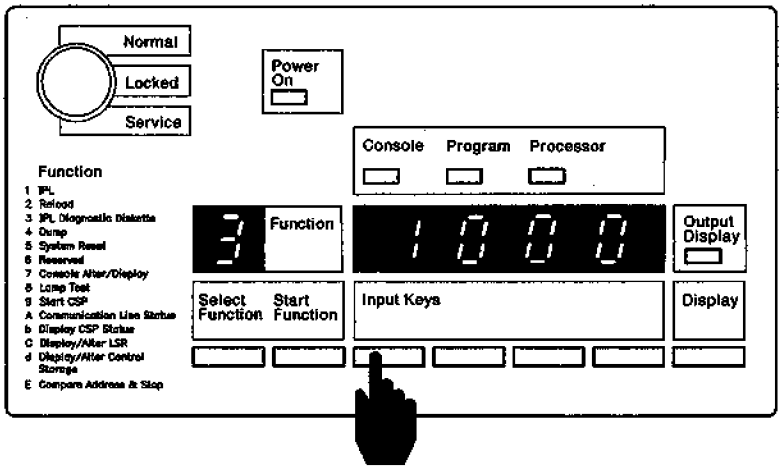
1. Get diskette 61.
2. Insert diskette 61 into the diskette drive slot.
3. Ensure that the Security switch is in the Service position.
4. Press the Select Function key until 3 is in the function display.

Continue

↓
7.29

7.29

Enter 1000 by pressing the first Input key.



R36A015-1

An Input key automatically advances the numbers (1 through 9) and letters (A through F) until you release the key.

Note: Letters b and d are displayed in lowercase, as shown:

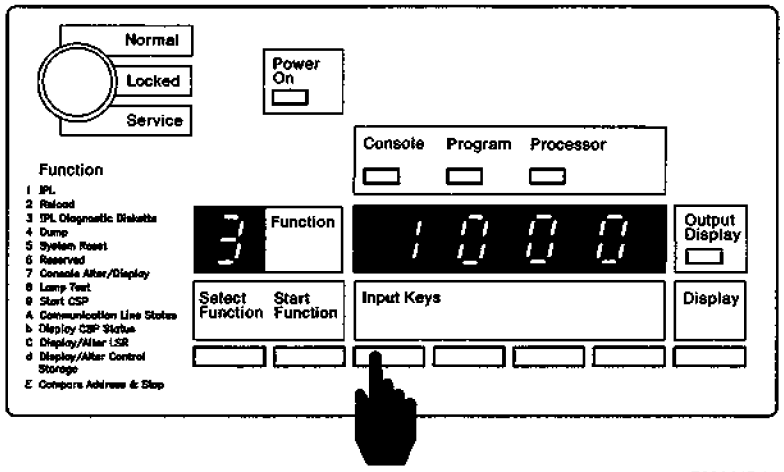
R36A016-0

If you go beyond the number 1, just keep pressing the Input key until it shows up again.

↓
7.30

7.30

Press the Start Function key.



When you press the Start Function key, the computer takes 5 to 10 minutes to check itself to make sure it is ready to operate. Follow the directions given by the screen prompts. When Sytsem/ 36 Checkout Program screen appears, go to next step.

↓
7.31

1000 is a special code that the computer uses when the Security switch is in the Service position. The code remains displayed on the operator panel during checkout or until a system reference code is displayed in its place.

The 3 should blink once in the Function display if the function has started, and two rows of dashes will move across the output display until the IPL count down is displayed on the system console.

7.31

When you ran the BUILD procedure (step 7.17), were there any error sectors identified as file name #LIBRARY?

Yes	No
↓	↓
7.32	7.34

7.32

The disk error is in an area of the disk used by the system support program (SSP).

Locate your backup of #LIBRARY. If you do not have a backup of #LIBRARY (from when you installed this release of SSP), then you must use the SSP diskettes.

Continue

↓

7.33

If you use the SSP diskettes instead of your backup of #LIBRARY, you must reconfigure all of your SSP utility and feature support programs. Do this after you complete reloading the SSP diskettes. See the procedure CNFIGSSP and the manuals for system configuration.

7.33

Reload the #LIBRARY (SSP) by performing the following steps:

1. Insert the #LIBRARY backup of the SSP program product volume 1 diskette.
2. At the control panel, ensure that the Security switch is in the Service position.
3. Press the Select Function key until 2 is in the function display.
4. Press the input keys until FF00 appears at the system panel.
5. Press the Start Function key.
6. A screen prompt should appear at the system console requesting sign-on information. Enter your user ID and password (if required).
7. Load the diskettes by following the prompts.

Were you able to reload #LIBRARY (SSP)?

Yes	No
↓	↓
7.34	7.42

7.34

Do the following:

1. Press the Select Function key until 1 is in the function display.
2. Press the input keys until 0000 appears at the control panel.
3. Press the Start Function key.
4. Wait for the IPL to complete (approximately 15 minutes).
5. Return the Security switch to the Normal position.

Did you get the IPL Sign On display?

Yes	No
↓	↓
7.35	7.42

7.35

Enter your normal IPL sign-on information.

Does the file rebuild procedure complete and are you able to operate the system console?

Yes	No
↓	↓
7.36	7.13

7.36

Are there any more file names from the BUILD procedure that begin with a # (other than #CSLIB and #LIBRARY)?

Yes	No
↓	↓
7.43	7.37

7.37

You are here because you were able to restore the system information lost because of the disk error.

From the BUILD procedure you ran earlier, were there more file names other than the file name NOFILE?

Yes	No
↓	↓
7.23	7.25

7.38

The information needed by your task has been deleted from the system disk, or the information has been accessed by some job that has changed the file name.

You may be able to find the correct file name in the system history file by doing the following:

1. Type HISTORY at the command entry screen and press the Enter key two times.
2. Look for a DELETE or RENAME in the history file.

After running the HISTORY procedure, do you need to restore information (files, libraries, and folders) from tape or diskette to the system disk?

For more information on the HISTORY procedure, see the *System Reference* manual, SC21-9020.

Yes	No
↓	↓
7.11	7.39

7.39

Did you receive a four-character system reference code (SRC) from any of the previous steps?

Yes	No
↓	↓
7.40	7.41

7.40

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 2 of the form, describe the problem and the function you were using when the problem happened. Record any system message about the problem and any SRC displayed.
3. Call for system hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

7.41

1. Because there are other symptoms and you cannot resolve the problem, contact your applications programmer, or whoever supplied your programs, for assistance.
2. End problem determination.

7.42

Do the following:

1. Get a copy of the "Problem Summary Form" from Appendix A of this manual.
2. On item 2 of the form, describe the problem and the function you were using when the problem happened. Record any system message about the problem and any SRC displayed.
3. Call for system hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

7.43

Certain system use areas and IBM program products use member labels that begin with a #.

Do the following:

1. Type CATALOG at the command entry screen and press the Enter key. (This procedure prints out the labels and file types of all disk members.)
2. For system file types, type BUILD at the command entry screen and press the Enter key. Use the Cmd1 key to correct each error. The work areas should not create any problems.

Continue

↓
7.44

Members with a type of system are areas used by the system as work areas, with the exception of #SECRESO and #SECUIDO, (which are the security files for resources and user IDs).

If the security files are damaged, you should restore them by entering the SECREST procedure.

For more information on any of these procedures, see the *System Reference* manual, SC21-9020.

7.44

- If you can identify the program product or utility by the label, then you should restore that utility or program product from a backup copy.
- If you do not know what the program product or utility is, go ahead and use the system. The system will probably issue an error message when the member is used. You will then know what program product or utility caused the error message to be issued.
- Type BUILD at the command entry screen and press the Enter key. Use the Cmd1 key to clear all errors in files that begin with a #.

Do you have any more error sectors identified other than those with file names beginning with a #, and other than file name NOFILE), as a result of running the BUILD procedure?

Yes	No
↓	↓
7.23	7.25

Members with types of LIBRARY, FOLDER, or blank are associated with program products, system utilities, or possibly user-defined members. The file label usually indicates what product or utility the member is associated with.

7.45

Was the first disk drive (A1) initialized or replaced?

Yes	No
↓	↓
7.46	7.47

If the answer is yes, the system cannot perform an IPL from disk.

7.46

You will have to replace all disk information. This involves the following steps:

1. Customize the microcode. (The microcode must be reloaded. A hardware service representative should be called to perform the reloading of the microcode.)
2. Reload the SSP (see Note 1).
3. Load IBM utilities, program products, and features (see Note 2).
4. Restore your libraries, files, and folders.

   If you are not sure of the restore procedure to use for your information, use the appropriate procedure from the table to restore the missing information.

Information Type	Procedure Used to Save Information	Procedure to Restore Information
Program libraries	SAVELIBR	RESTLIBR
Library members	FROMLIBR	BLDLIBR TOLIBR
Data files	SAVE	RESTORE
Text folders	SAVEFLDR	RESTFLDR

R36A033-0

You have completed problem determination in this manual.

Notes:

1. Use backup #LIBRARY if available, or use the original SSP diskettes. Steps to reload SSP can be found in the manual *Operating Your Computer—5363*, SC21-9685.
2. Use the appropriate load procedure to load IBM utilities, program products, and features from the backup (SEULOAD, RPGLOAD, and so on), or refer to CNFIGSSP to load them from the original IBM-supplied diskettes. (You were instructed to back up these products when you configured your system or installed a release update.) For more information on the CNFIGSSP procedure, see the manual *Changing Your System Configuration.*

7.47

Do the following:

1. Perform an IPL for the 5363 System Unit from disk.
2. Make sure the Security switch is in the Normal position.
3. Press the Select Function key until a 1 appears in the Function display.
4. Press the Start Function key.
5. Type CATALOG at the command entry screen and press the Enter key. (A printout will be produced that you may want to use later for reference purposes.)
6. Locate and inventory your backup diskettes.
7. If you have files, libraries, or folders that you need to make backups of, you must first verify that the corresponding information on the disk is valid. Procedures to list your information for purposes of verification include: LISTDATA, LISTFILE, and LISTLIBR. The resulting printout(s) may be used to verify that the information is correct, and that a backup can now be made.
8. Verify that your information is correct.

The CATALOG printout is a list of all file names that reside in the volume table of contents (VTOC). File names appearing on the VTOC may not, at this time, contain valid information. This is because the disk that the files were located on was replaced or initialized.

Use the procedure CATALOG ,I1 to inventory your backup diskettes.

Do you have files, libraries, or folders that you can back up?

Yes	No
↓	↓
7.48	7.49

7.48

You need to save your information on diskette(s) or tape. If you are not sure of the save procedure to use for your information, use the appropriate procedure from the table.

Information Type	Procedure to Save Information
Program libraries	SAVELIBR
Data files	SAVE
Text folders	SAVEFLDR

R36A034-0

After you have completed saving your information, continue with the next step.

Continue

↓
7.49

7.49

One disk file's capacity is 65 megabytes, 2598 blocks. Two disk files' capacity is 130 megabytes, 5196 blocks.

You may be able to avoid deleting all your files by determining which files, libraries, and folders were located on the disk that was initialized or replaced.

You will need to calculate which files were affected by doing the following: type CATALOG,,,,LOCATION at the command entry screen and press the Enter key. (A listing is produced that lists files by block location.)

If you are unable to determine from the CATALOG,,,,LOCATION listing which files were on the disk that was initialized or replaced, go to step 7.50.

If you can determine from the CATALOG,,,,LOCATION listing the files that were on the disk that was initialized or replaced, continue:

1. Ensure that you have backup diskettes of those files available (you were asked to inventory your backup diskettes in step 7.38).
2. Delete only those affected files.
3. Type LOGPLD DELETE at the command entry screen and press the Enter key.

Were you able to determine, using the procedure CATALOG,,,,LOCATION, which files were located on the disk that was initialized or replaced, and to delete the affected files?

Yes	No
↓	↓
7.52	7.50

7.50

The following steps will delete all files, libraries, and folders from the disk VTOC.

Your current backup diskettes will be your only means of restoring your information to the disk.

1. Type LOGPLD DELETE at the command entry screen and press the Enter key.
2. Enter the OCL statements: (Press the Enter key after you finish entering each line.)

   ```
   //LOAD $DELET
   //RUN
   //SCRATCH LABEL-ALL,UNIT-F1,+
   USERLIBS-YES,FOLDER-YES,GROUP-ALL
   ```

   You will be interrupted by the following SYS-2046 message:

   ```
   SYS-2046 Option (0 23)
   **Warning**All libraries, folders will be deleted...
   ```

   Respond with option 0.
3. Enter the OCL statement:

   ```
   //RUN
   ```

Continue

↓

7.51

You may want to perform the CATALOG procedure to verify that the files, libraries and folders were deleted. (The VTOC will now show only system-type files remaining in the VTOC.)

7.51

Reload all of the following:

1. IBM utilities, program products, and features. (You were instructed to back up these products when you configured your system or installed a release update.)

   Use the appropriate load procedure to load from the backup diskettes (SEULOAD, RPGLOAD, and so on), or refer to the CNFIGSSP procedure to load them from the original IBM-supplied diskettes.

   For more information on the CNFIGSSP procedure, see the manual *Changing Your System Configuration*, SC21-9052.

2. Reload your data files, program libraries, and text folders.

   Use the appropriate procedure from the table to restore the information.

Information Type	Procedure Used to Save Information	Procedure to Restore Information
Program libraries	SAVELIBR	RESTLIBR
Library members	FROMLIBR	BLDLIBR TOLIBR
Data files	SAVE	RESTORE
Text folders	SAVEFLDR	RESTFLDR

R36A033-0

You have completed problem determination in this manual.

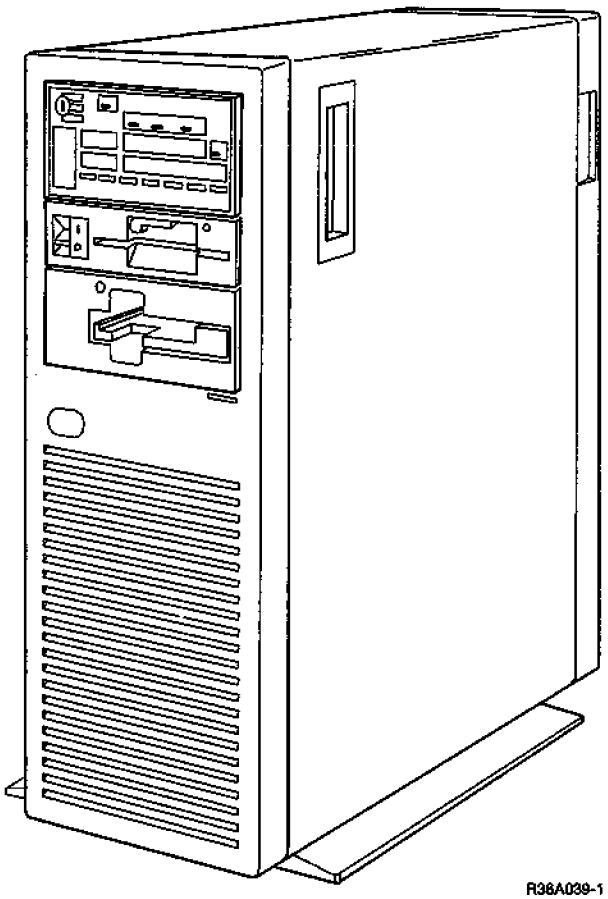
7.52

Restore from the backup diskettes those files that you deleted in step 7.38.

Use the appropriate procedure from the table to restore the information.

You have completed problem determination in this manual.

Appendix A. The Problem Summary Form



System/36 Problem Summary Form for the 5363 System Unit

Please complete the following information before calling for service:

1 Describe the original problem: ____

____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ - _ _ _ _ SRC _ _ _ _

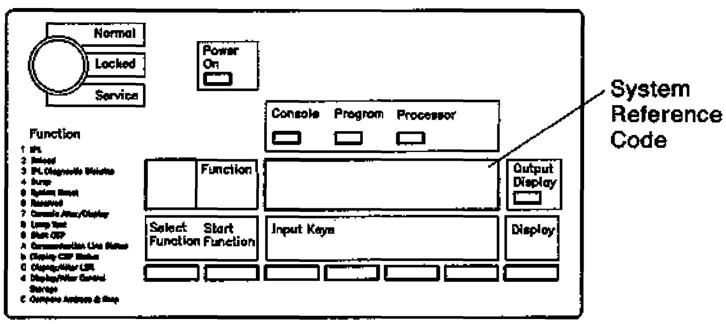
_ _ _ _ - _ _ _ _ SRC _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

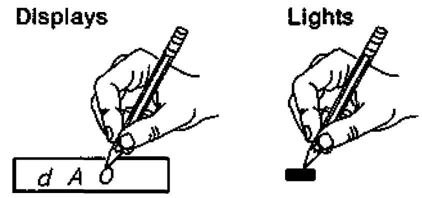
System Reference Code

Record the time the problem occurred: ____

Record all control panel displays and lights on the illustration (see example):



Example:



Fill in the characters that are on your control panel.

If light is on

2 If you are told to IPL the System, describe the problem: ____

____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ - _ _ _ _ SRC _ _ _ _

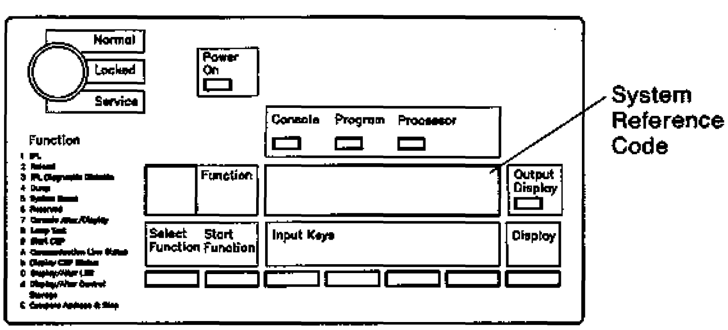
_ _ _ _ - _ _ _ _ SRC _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

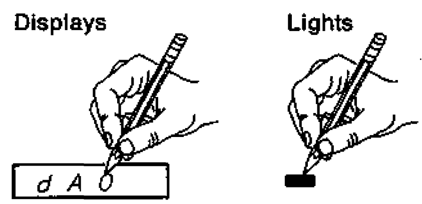
System Reference Code

Record the time the problem occurred: ____

Record all control panel displays and lights on the illustration (see example):



Example:



Fill in the characters that are on your control panel.

If light is on

R36A035-1

3 After you IPL from the customer setup diskette, describe the problem: _____

_____

Record any System messages or System Reference Codes (SRC):

____ ____ ____ ____ - ____ ____ ____ ____

____ ____ ____ ____ - ____ ____ ____ ____

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

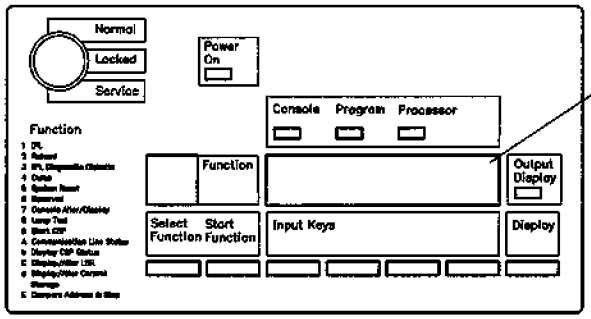
SRC ____ ____ ____ ____

SRC ____ ____ ____ ____

System Reference Code

Record the time the problem occurred: _____

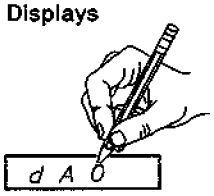
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

4 Record and report any additional messages, error codes, or check lights that appear on the display station or printers: _____

_____

_____

_____

R36A036-0

System/36 Problem Summary Form for the 5363 System Unit

Please complete the following information before calling for service:

1 Describe the original problem: _____

_____

Record any System messages or System Reference Codes (SRC):

_____ SRC _____

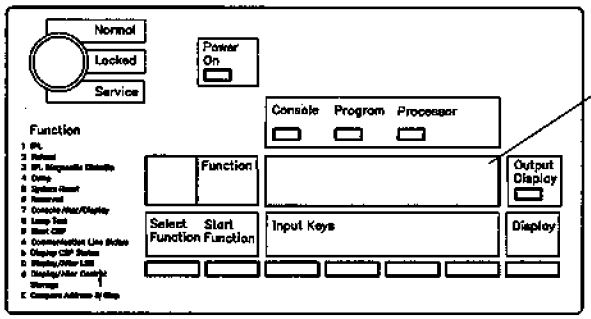
_____ SRC _____

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred: _____

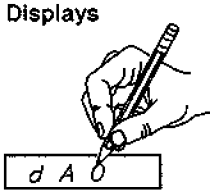
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

2 If you are told to IPL the System, describe the problem: _____

_____

Record any System messages or System Reference Codes (SRC):

_____ SRC _____

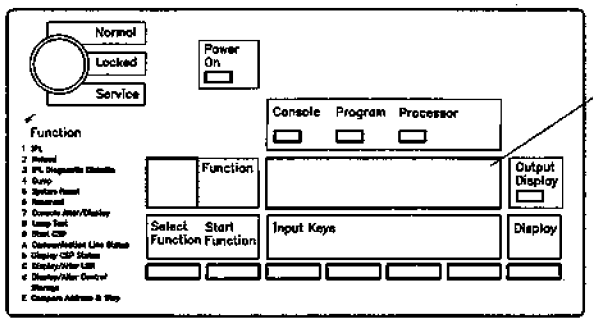
_____ SRC _____

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred: _____

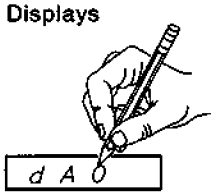
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

R36A035-1

3 After you IPL from the customer setup diskette, describe the problem: _____

_____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _

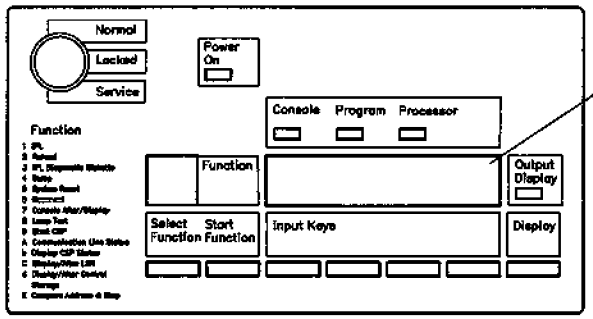
Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

SRC _ _ _ _
SRC _ _ _ _

System Reference Code

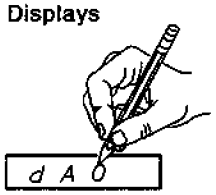
Record the time the problem occurred: _____

Record all control panel displays and lights on the illustration (see example):



Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

4 Record and report any additional messages, error codes, or check lights that appear on the display station or printers: _____

_____

_____

_____

R36A036-0

System/36 Problem Summary Form
for the 5363 System Unit

Please complete the following information before calling for service:

1 Describe the original problem: _____

_____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ _ - _ _ _ _ _ _ SRC _ _ _ _ _

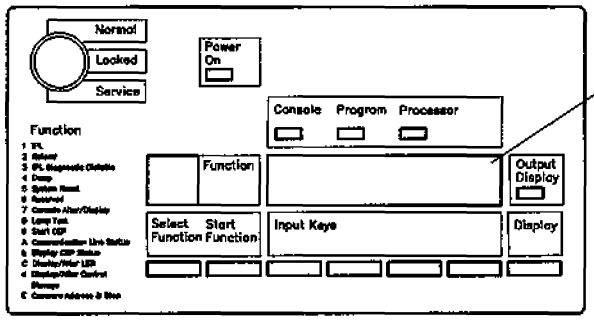
_ _ _ _ _ - _ _ _ _ _ _ SRC _ _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred: _____

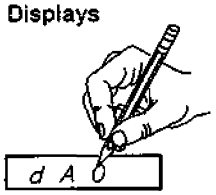
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

2 If you are told to IPL the System, describe the problem: _____

_____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ _ - _ _ _ _ _ _ SRC _ _ _ _ _

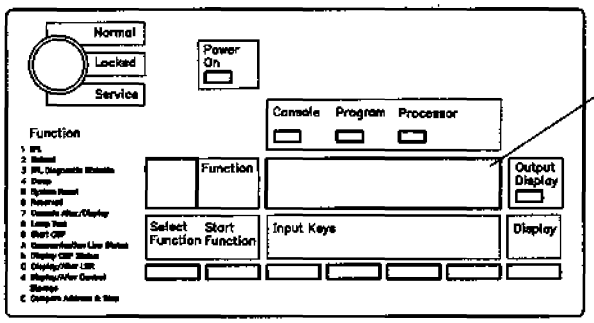
_ _ _ _ _ - _ _ _ _ _ _ SRC _ _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred: _____

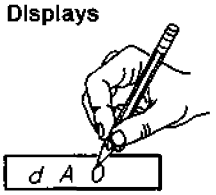
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

R36A035-1

3 After you IPL from the customer setup diskette, describe the problem: _____

_____

Record any System messages or System Reference Codes (SRC):

____ ____ ____ ____ – ____ ____ ____ ____ SRC ____ ____ ____ ____

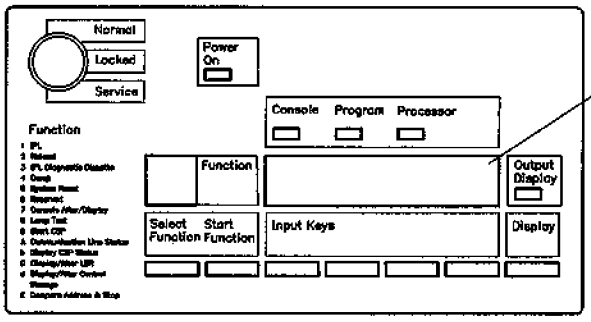
____ ____ ____ ____ – ____ ____ ____ ____ SRC ____ ____ ____ ____

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred: _____

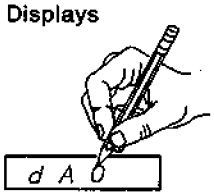
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

4 Record and report any additional messages, error codes, or check lights that appear on the display station or printers: _____

_____

_____

_____

R36A036-0

System/36 Problem Summary Form
for the 5363 System Unit

Please complete the following information before calling for service:

1 Describe the original problem: ______________________________

____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ - _ _ _ _   SRC _ _ _ _

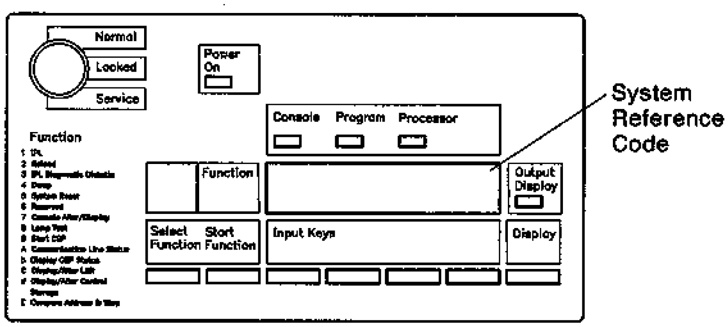
_ _ _ _ - _ _ _ _   SRC _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred: ______________________________

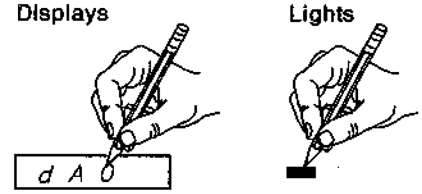
Record all control panel displays and lights on the illustration (see example):



Example:

Displays

Lights



Fill in the characters that are on your control panel.

If light is on

2 If you are told to IPL the System, describe the problem: ______________________________

____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ - _ _ _ _   SRC _ _ _ _

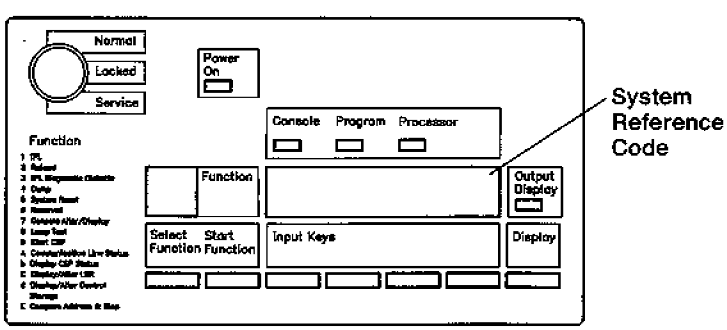
_ _ _ _ - _ _ _ _   SRC _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred: ______________________________

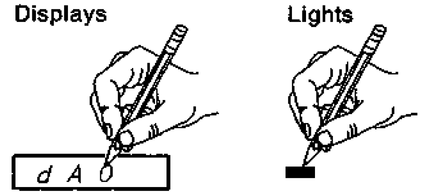
Record all control panel displays and lights on the illustration (see example):



Example:

Displays

Lights



Fill in the characters that are on your control panel.

If light is on

R36A035-1

3 After you IPL from the customer setup diskette, describe the problem: _____

_____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

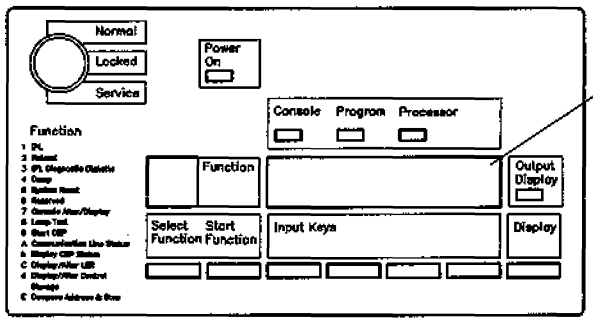
SRC _ _ _ _

SRC _ _ _ _

System Reference Code

Record the time the problem occurred: _____

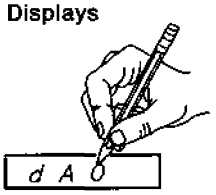
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

4 Record and report any additional messages, error codes, or check lights that appear on the display station or printers: _____

_____

_____

_____

R36A036-0

System/36 Problem Summary Form
for the 5363 System Unit

Please complete the following information before calling for service:

1 Describe the original problem: _____

_____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ _ - _ _ _ _ _ SRC _ _ _ _ _

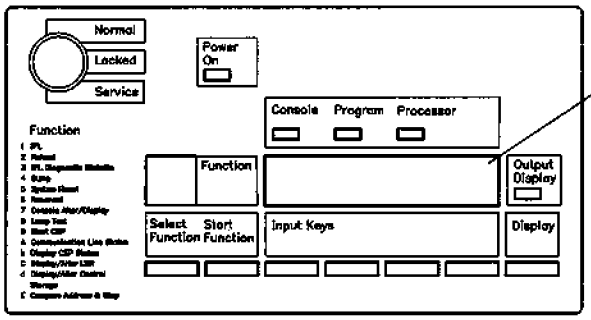
_ _ _ _ _ - _ _ _ _ _ SRC _ _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred: _____

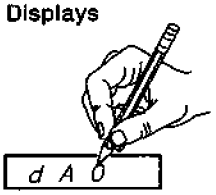
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

2 If you are told to IPL the System, describe the problem: _____

_____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ _ - _ _ _ _ _ SRC _ _ _ _ _

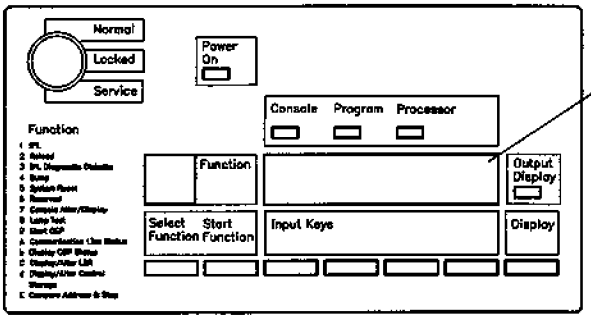
_ _ _ _ _ - _ _ _ _ _ SRC _ _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred: _____

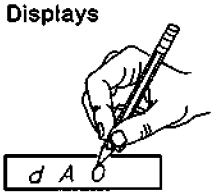
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

R36A035-1

3 After you IPL from the customer setup diskette, describe the problem: _____

_____

Record any System messages or System Reference Codes (SRC):

____ ____ ____ ____ - ____ ____ ____ ____

____ ____ ____ ____ - ____ ____ ____ ____

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

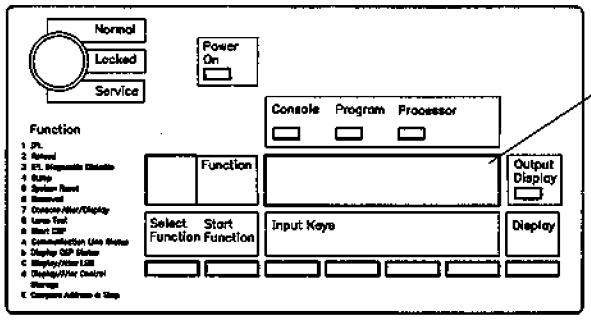
SRC ____ ____ ____ ____

SRC ____ ____ ____ ____

System Reference Code

Record the time the problem occurred: _____

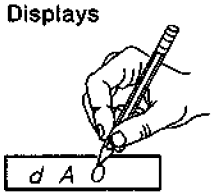
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

4 Record and report any additional messages, error codes, or check lights that appear on the display station or printers: _____

_____

_____

_____

R36A036-0

IBM **System/36 Problem Summary Form for the 5363 System Unit**

Please complete the following information before calling for service:

1 Describe the original problem:

Record any System messages or System Reference Codes (SRC):

SRC

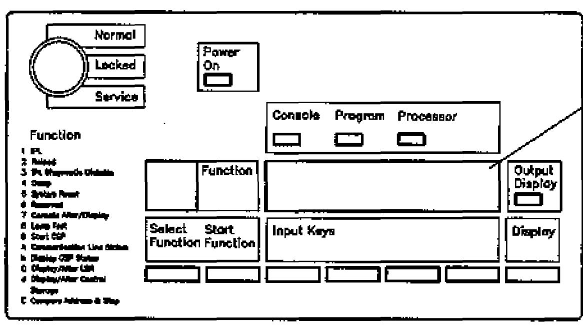
SRC

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred:

Record all control panel displays and lights on the illustration (see example):

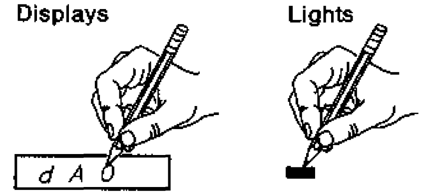


System Reference Code

Example:

Displays

Lights



Fill in the characters that are on your control panel.

If light is on

2 If you are told to IPL the System, describe the problem:

Record any System messages or System Reference Codes (SRC):

SRC

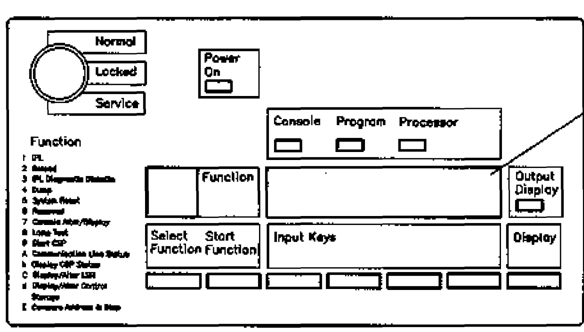
SRC

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred:

Record all control panel displays and lights on the illustration (see example):

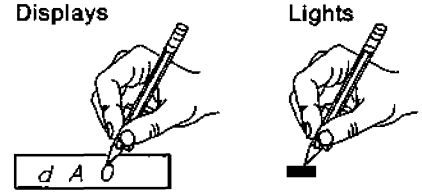


System Reference Code

Example:

Displays

Lights



Fill in the characters that are on your control panel.

If light is on

R36A035-1

3 After you IPL from the customer setup diskette, describe the problem: _____

_____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ _ - _ _ _ _ _

_ _ _ _ _ - _ _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

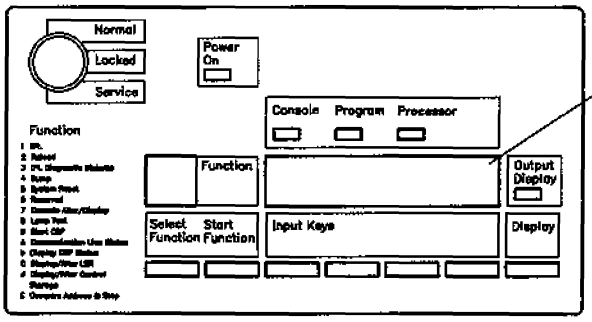
SRC _ _ _ _ _

SRC _ _ _ _ _

System Reference Code

Record the time the problem occurred: _____

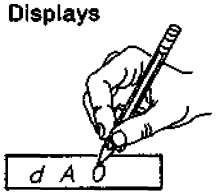
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

4 Record and report any additional messages, error codes, or check lights that appear on the display station or printers: _____

_____

_____

_____

R36A036-0

System/36 Problem Summary Form
for the 5363 System Unit

Please complete the following information before calling for service:

1 Describe the original problem: _____

_____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ _ - _ _ _ _ _ SRC _ _ _ _ _

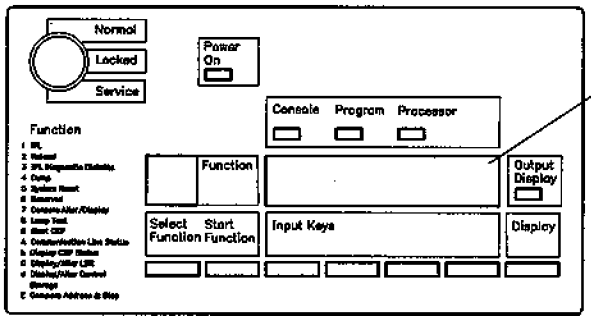
_ _ _ _ _ - _ _ _ _ _ SRC _ _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred: _____

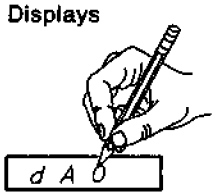
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

2 If you are told to IPL the System, describe the problem: _____

_____

Record any System messages or System Reference Codes (SRC):

_ _ _ _ _ - _ _ _ _ _ SRC _ _ _ _ _

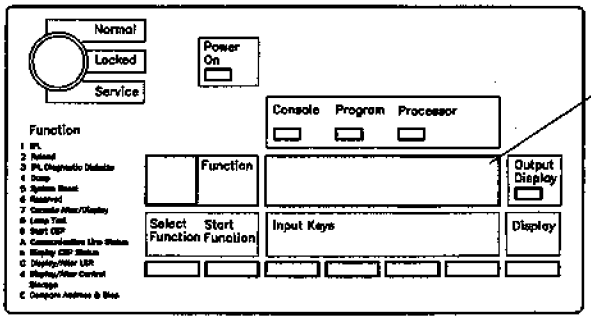
_ _ _ _ _ - _ _ _ _ _ SRC _ _ _ _ _

Message Identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

System Reference Code

Record the time the problem occurred: _____

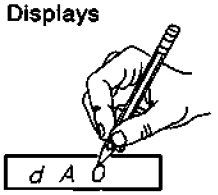
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

R36A035-1

3 After you IPL from the customer setup diskette, describe the problem: _____

_____

Record any System messages or System Reference Codes (SRC):

____ ____ ____ ____-____ ____ ____ ____

____ ____ ____ ____-____ ____ ____ ____

Message identifier (three or four alphabetic characters and four numbers) for example, SYS-7300, SORT 7002

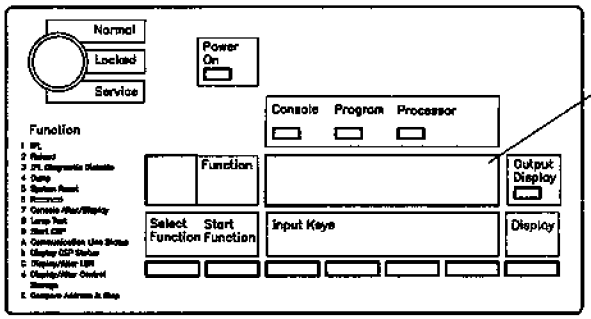
SRC ____ ____ ____ ____

SRC ____ ____ ____ ____

System Reference Code

Record the time the problem occurred: _____

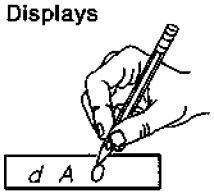
Record all control panel displays and lights on the illustration (see example):



System Reference Code

Example:

Displays



Fill in the characters that are on your control panel.

Lights

If light is on

4 Record and report any additional messages, error codes, or check lights that appear on the display station or printers: _____

_____

_____

_____

R36A036-0

Appendix B. Collecting Storage Dump Information

B.1

This appendix tells you how to use the system control panel and the system console to collect storage dump information for software service. The service representative will analyze the information to determine why your system is not working properly.

This procedure will require you to use initialized diskettes and will display the number of diskettes that you will need. The number of diskettes needed will vary with the size of your system and the amount of work being done when the problem occurred.

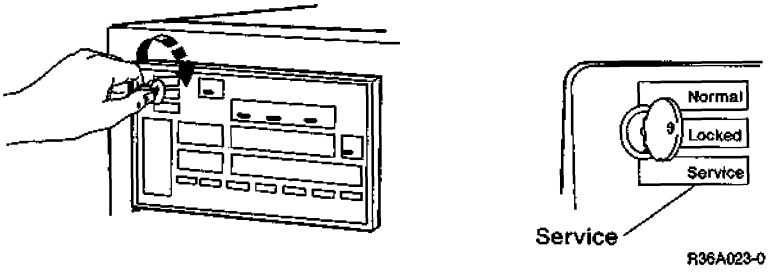
The diskettes containing the storage dump information will be given to IBM for analysis.

Note: Be sure the system console is powered on before you start the storage dump procedures.

↓
B.2

B.2

Turn the Security switch to the Service position.

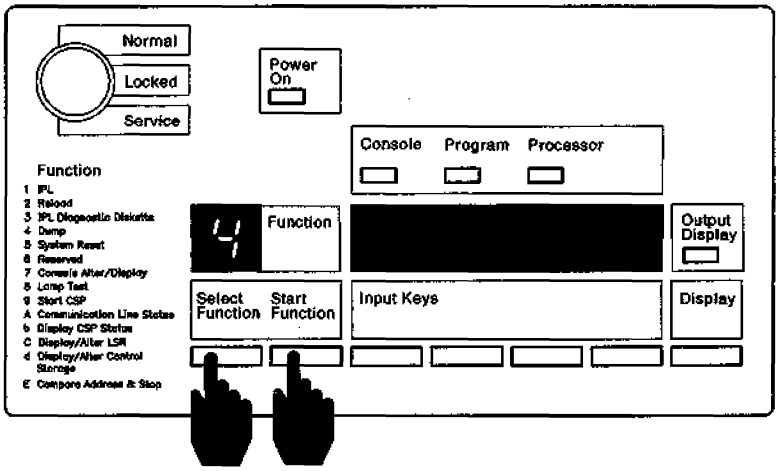


↓
B.3

B.3

Do the following:

1. Press the Select Function key until 4 is in the Function display.
2. Watch the Function display and press the Start Function key only once. (See note).



R36A037-1

Note: If the Start Function key is pressed more than once, the storage dump will not be correct. If you do press the Start Function key more than once, continue with the storage dump procedures but record on the "Problem Summary Form" that the key may have been pressed more than once.

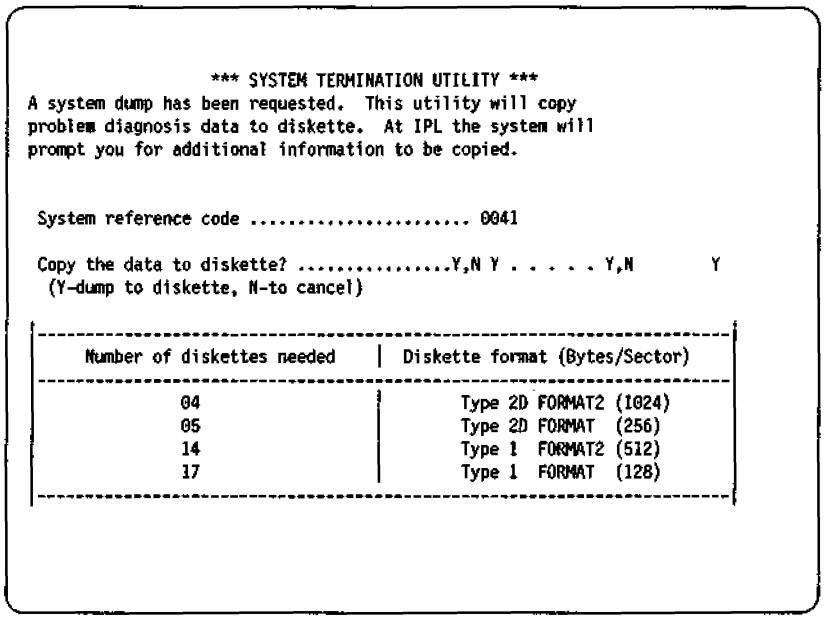
Were you able to select function 4 and then start the function?

The 4 should blink once in the Function display if the function has started.

Yes	No
↓	↓
B.4	**B.28**

B.4

A System Termination Utility display will appear at the system console. (The display on your screen may be slightly different than the display shown below.)



```
                *** SYSTEM TERMINATION UTILITY ***
A system dump has been requested.  This utility will copy
problem diagnosis data to diskette.  At IPL the system will
prompt you for additional information to be copied.


 System reference code ..................... 0041

 Copy the data to diskette? ..............Y,N Y . . . . . Y,N        Y
  (Y-dump to diskette, N-to cancel)

+-------------------------------------------------------------------+
|  Number of diskettes needed  |  Diskette format (Bytes/Sector)    |
|------------------------------+------------------------------------|
|            04                |       Type 2D FORMAT2 (1024)       |
|            05                |       Type 2D FORMAT  (256)        |
|            14                |       Type 1  FORMAT2 (512)        |
|            17                |       Type 1  FORMAT  (128)        |
+-------------------------------------------------------------------+
```

Note: You need to power on the system console for this display to appear.

On item 1 of the "Problem Summary Form," write down the system reference code that appears on your display.

Did you get the System Termination Utility display?

Yes	No
↓	↓
B.5	**B.28**

B.5

The System Termination Utility display tells you how many diskettes are needed to continue (depending on the diskette format of the diskettes you use). You must make sure that you have enough diskettes available before you continue with this procedure. When you select the diskettes to be used, be aware that:

- The diskettes must all be of the same type and initialized to the same format. (For example, the diskettes could all be Type 2D diskettes initialized to Format 2 [1024 Bytes/Sector].)
- You will have to give these diskettes to the software service representative for analysis. The software service representative will return your diskettes if you request it.
- All data previously recorded on the diskettes will be destroyed.

```
                *** SYSTEM TERMINATION UTILITY ***
A system dump has been requested.  This utility will copy
problem diagnosis data to diskette.  At IPL the system will
prompt you for additional information to be copied.


 System reference code ..................... 0041

 Copy the data to diskette? ..............Y,N Y . . . . . Y,N       Y
  (Y-dump to diskette, N-to cancel)

-------------------------------------------------------------------------
    Number of diskettes needed   | Diskette format (Bytes/Sector)
-------------------------------------------------------------------------
             04                  |       Type 2D FORMAT2 (1024)
             05                  |       Type 2D FORMAT  (256)
             14                  |       Type 1  FORMAT2 (512)
             17                  |       Type 1  FORMAT  (128)
-------------------------------------------------------------------------
```

Do you have enough initialized diskettes available to continue with this procedure?

Yes	No
↓	↓
B.7	**B.6**

B.6

Do not attempt to operate the computer or perform an initial program load.

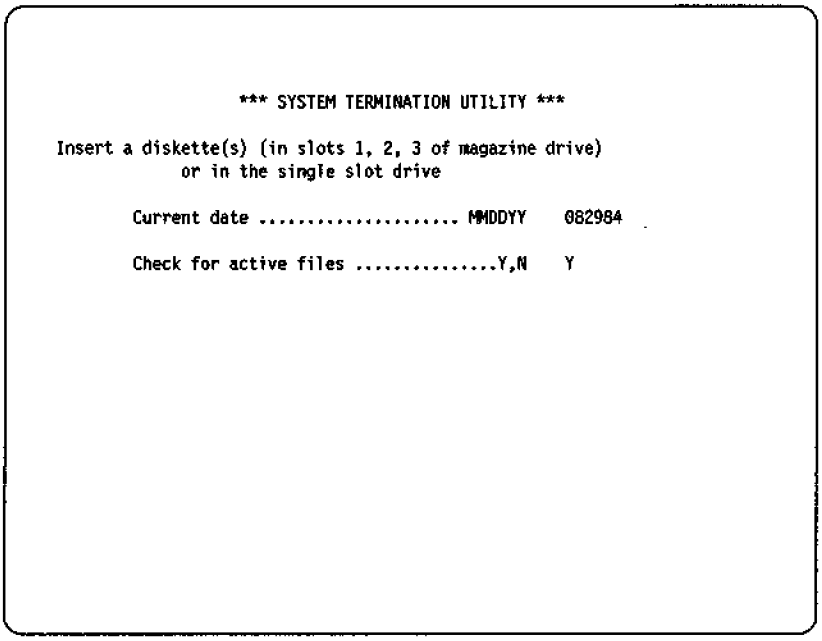
Do the following:

1. On item 1 of the "Problem Summary Form" on which you described the original problem, report that you are having a problem completing the System Termination Utility. Report any system reference codes that you may have recorded. Also, give a description of the events that led you to perform the System Termination Utility.
2. Turn the Security switch to the Normal position.
3. Call for software service to help you with the problem. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

Additional Information: Performing an initial program load at this time will destroy the data needed by software service and may damage programs or files on the system. However, an initial program load may make the system operational again. It is not recommended that you perform an initial program load until you discuss the problem with your service representative or until you finish collecting the storage dump information on diskettes.

B.7

Press the Enter key. The following System Termination Utility display should appear.



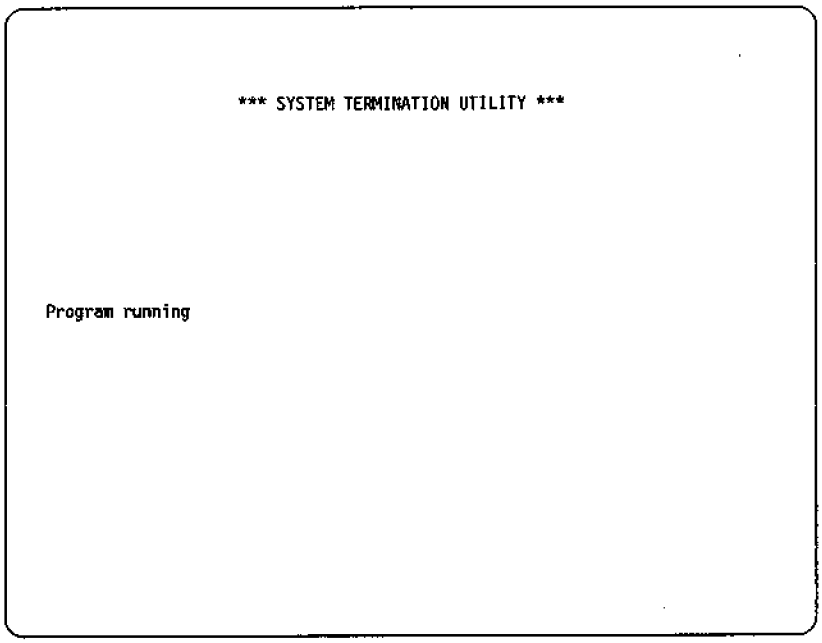
Do the following:

1. Insert a diskette into the slot of the diskette drive.
2. Make sure the current date is correct.
3. Enter an N if you do not want to check for active files. (You should allow this to remain a Y if you suspect the diskettes contain active files that you want to keep.)
4. Press the Enter key.

Continue
↓
B.8

B.8

The following display is shown while the System Termination Utility is writing data onto the diskette. Continue with the next step after the display changes. (You may have to wait for a few minutes for the display to change.)

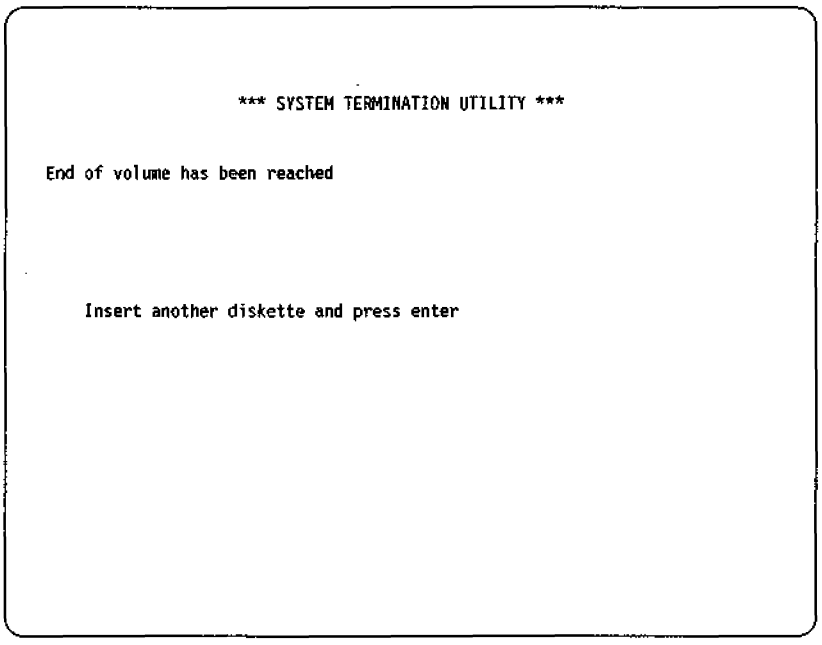


Note: Other displays may appear if problems are encountered while using the diskettes. Follow the instructions on the displays to correct the problem. Go to step B.6 if you have a problem that does not let you complete the system termination procedure.

Continue
↓
B.9

B.9

A display telling you *End of volume has been reached* appears if additional diskettes are needed.



Note: Other displays may appear if problems are encountered while using the diskettes. Follow the instructions on the displays to correct the problem. Go to step B.6 if you have a problem that does not let you complete the system termination procedure.

Did this display appear?

Yes	No
↓	↓
B.10	**B.11**

B.10

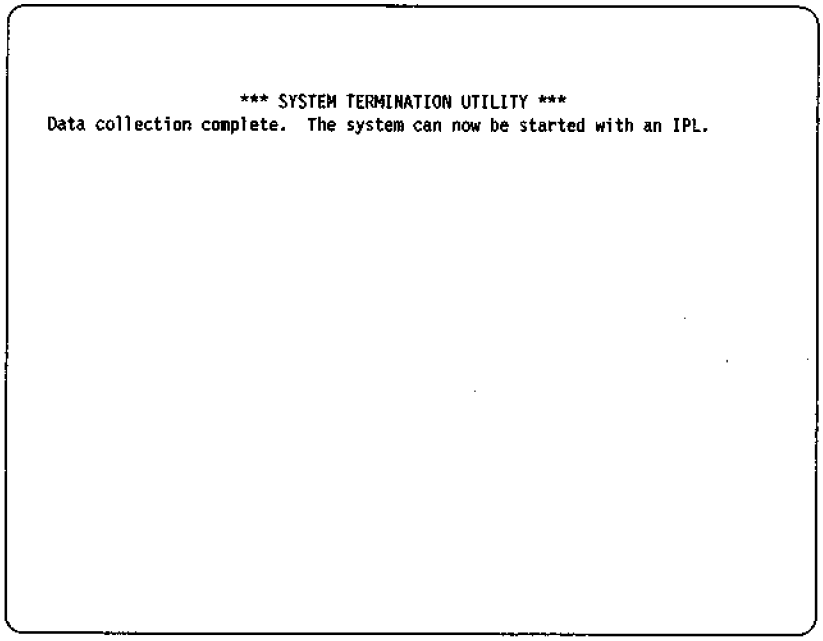
Do the following:

1. Remove the diskette that has just been used and label it. (It is suggested that you number the diskettes in the order that you remove them and label them *Storage Dump* diskettes.)
2. Insert another diskette into the diskette drive slot.
3. Press the Enter key.

Return to
↓
B.8

B.11

The following display appears when the System Termination Utility has completed collecting data.



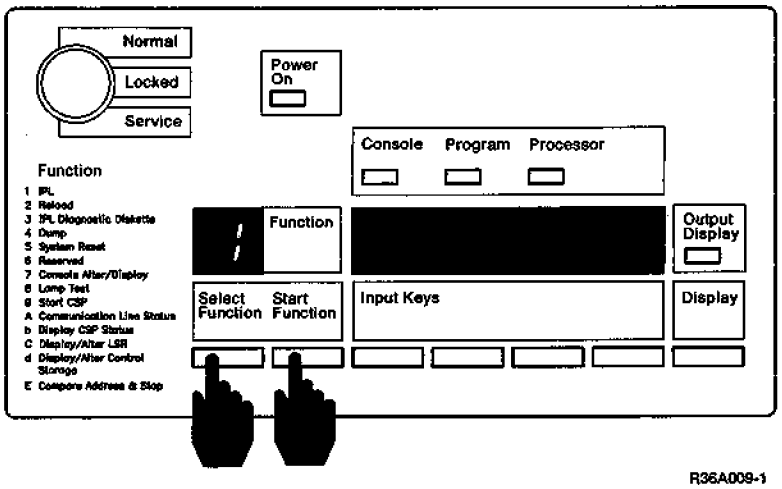
When this display appears, remove and label the diskette just used, then continue with the next step.

↓
B.12

B.12

Do the following:

1. Turn the Security switch to the Normal position.
2. Press the Select Function key.
3. Press the Start Function key to do an initial program load.

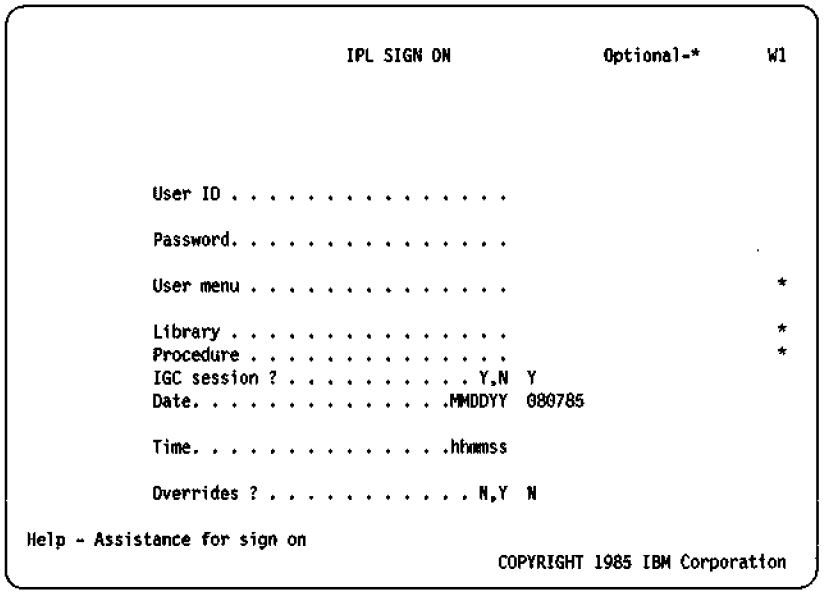


When the Security switch is in the Normal position, you will get a 1 displayed in the Function display if you press the Select Function key.

Continue
↓
B.13

B.13

Sign on the IPL Sign On display and press the Enter key.



The display shown is the standard sign-on display for the system. Your display may have different prompts than the display shown depending on the function you are using.

Note: The IPL Sign On display will not appear if the system encounters a problem during this initial program load. Call for software service if a Processor or Program light comes on during the IPL.

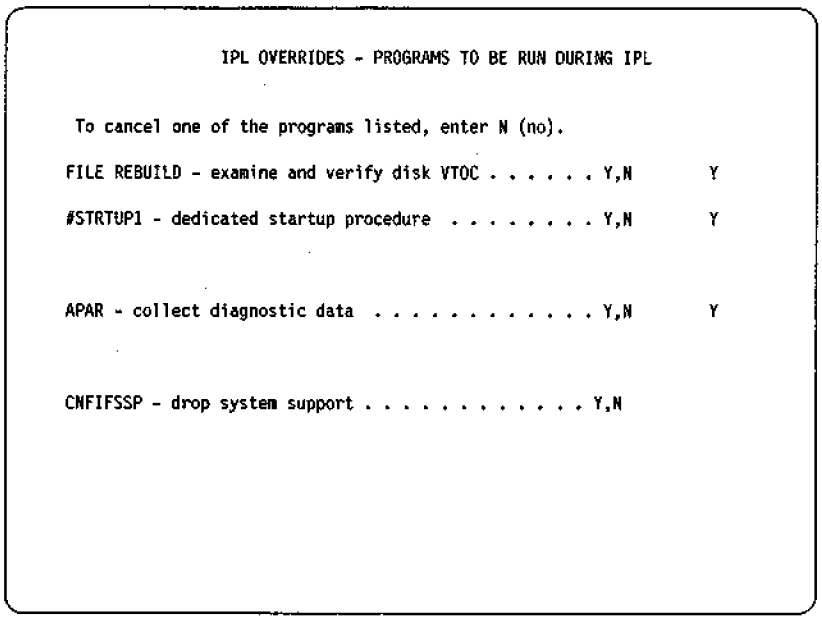
Continue with the step that applies to you.

Overrides Y (Yes)
↓
B.14

Overrides N (No)
↓
B.16

B.14

The IPL Overrides - Programs to be Run During IPL display should appear. (See note.)



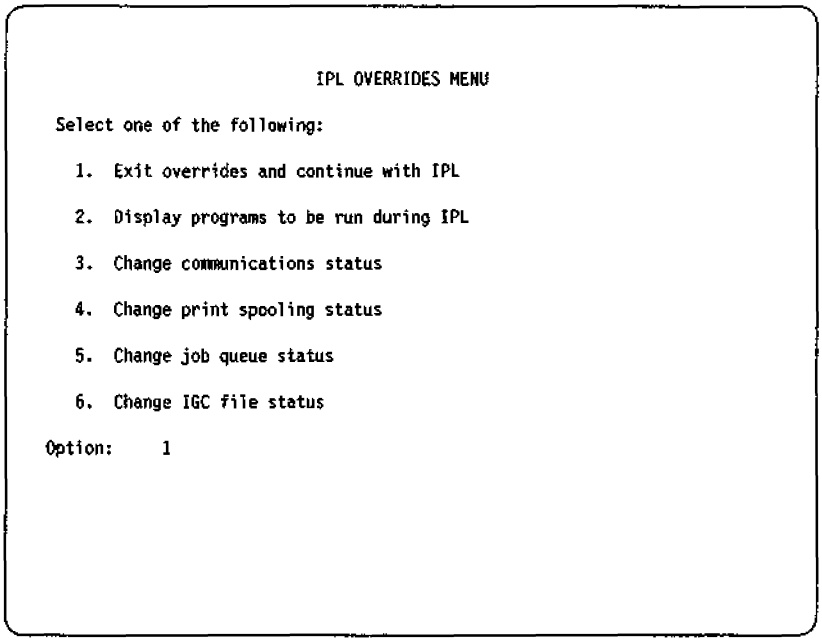
Note: Your display may contain different prompts than the display shown here. Do not change any of the default values on this display. The APAR procedure must be allowed to run.

Press the Enter key to continue.

Continue
↓
B.15

B.15

The IPL Overrides menu should appear.



Note: Your display may contain fewer prompts than the display shown here.

Do the following:

1. Change anything you want for communications (option 3), print spooling (option 4), job queue status (option 5), or IGC file status (option 6).

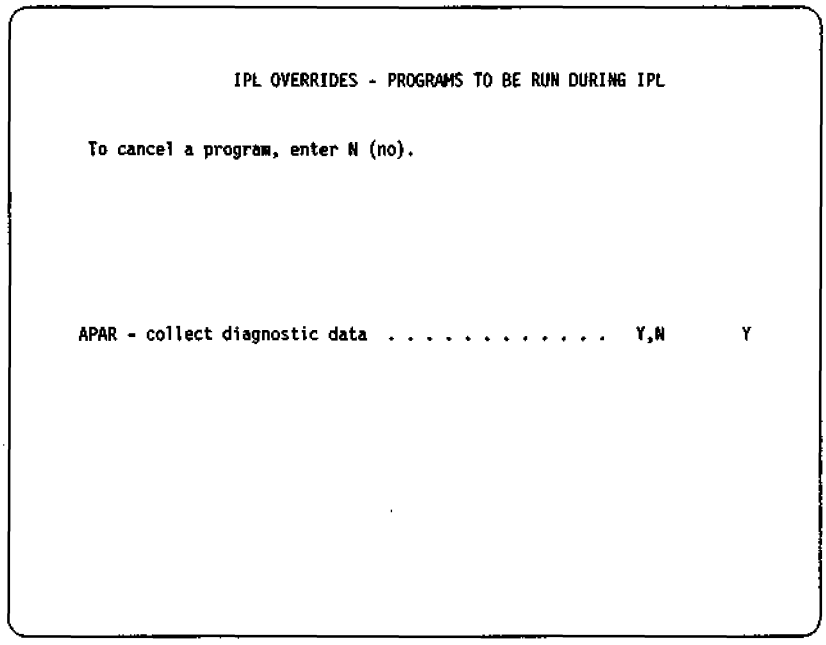
   Warning: Do not change any of the programs run during IPL (option 2). Otherwise, files may be damaged or destroyed or valuable diagnostic information may be lost.

2. Select option 1 to exit the overrides and continue with this IPL.

Continue
↓
B.17

B.16

The IPL Overrides - Programs to be Run During IPL display should appear.



Allow the value for APAR to remain a Y.

Press the Enter key to continue.

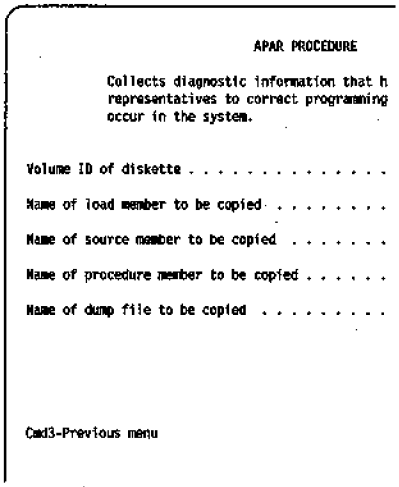
↓
B.17

B.17

The APAR Procedure display should be shown. You will need additional diskettes to continue with this procedure. It generally takes from 1 to 4 diskettes but may require more. (The actual number of diskettes you need depends on the size of your system and the amount of work being done when the problem occurred.) Please note that all of the diskettes must be initialized.

Do you have enough diskettes available to continue with this procedure?

Yes	No
↓	↓
B.19	**B.18**



Authorized Program Analysis Report (APAR): A request for correction of a problem caused by a defect in an IBM-supplied program.

B.18

Do not power off the system, or attempt to operate the computer, or bypass the APAR procedure.

Do the following:

1. On item 1 of the "Problem Summary Form" on which you described the original problem, report that you have completed the System Termination Utility and saved the data on diskettes. Also report that you do not have enough diskettes to complete the APAR procedure.
2. Call for software service. Save the completed "Problem Summary Form" for the service representative.
3. End problem determination.

B.19

The APAR procedure requires that the diskettes used must all be initialized to the same format and have no active files. To ensure that this is true, you should first initialize the diskettes.

Do the following to get to the initialization procedure:

1. Press the Attn key. (The Inquiry Options display should appear.)
2. Select option 1 from the Inquiry Options display. (A Command display should appear.)
3. Type in *INIT* and press the Help key.

Continue
↓
B.20

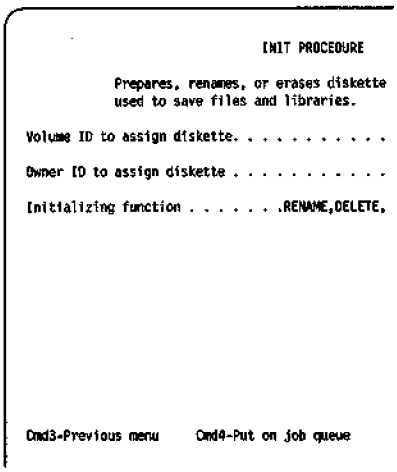
B.20

The INIT Procedure display should be shown.

Do the following:

1. Type in APAR as the volume ID.
2. Allow the owner ID to remain OWNERID.
3. Change the initializing function to FORMAT2.
4. Insert the diskette to be initialized and press the Enter key.
5. Repeat this process until your diskettes are initialized. (You can use the Dup key to call the initialization procedure again and again.)

Continue
↓
B.21



Note: You will be able to initialize diskettes until you press the Enter key when the APAR Procedure display is shown.

B.21

Your diskettes should now be initialized with the volume ID of APAR. You should have the Command display shown. Do the following to return to the APAR Procedure display:

Press the Cmd key (see note), then the 1 key.

Note: This may be the Cmd/0 key on some display stations.

↓
B.22

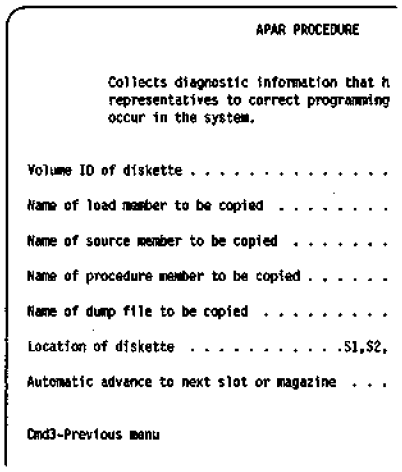
B.22

The APAR Procedure display should be shown.

Do the following:

1. Insert a diskette into the diskette drive slot.
2. Type in APAR as the volume ID.
3. Press the Enter key.

↓
B.23

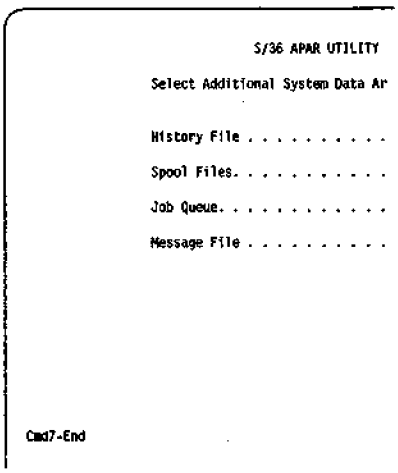


B.23

The S/36 APAR Utility display will appear.

Press the Enter key to continue. (See note.)

↓
B.24



Note: Allow the value for the History File to remain a Y.

B.24

The APAR data is being written onto the diskette. You will be prompted for additional diskettes, if additional diskettes are required. Remember to label the APAR diskette as you remove it from the system.

If you use up your supply of initialized diskettes and are prompted for additional diskettes, you will have to call for software service.

Did you have enough initialized diskettes to complete the APAR procedure?

Yes	No
↓	↓
B.26	**B.25**

Note: Other displays may appear if problems are encountered while using the diskettes. You should follow the instructions on the displays to correct the problem.

B.25

Do not power off the system, or attempt to operate the computer, or bypass the APAR procedure.

Do the following:

1. On item 1 of the "Problem Summary Form" on which you described the original problem, report that you have completed the System Termination Utility and saved the data on diskettes. Also report that you do not have enough diskettes to complete the APAR procedure.
2. Call for software service. Save the completed "Problem Summary Form" for the service representative.
3. End problem determination.

B.26

The display that allows you to enter commands to the system will appear after the APAR procedure has completed. The display will allow you to operate the system again.

```
                                MAIN                                  W1

                        Main System/36 help menu

Select one of the following:

   1. Display a user menu
   2. Perform general system activities
   3. Use and control printers, diskettes, or tape
   4. Work with files, libraries, or folders
   5. Use programming languages and utilities
   6. Communicate with another system or user
   7. Define the system and its users
   8. Use problem determination and service
   9. Use office products
  10. Sign off the system


Cmd3-Previous menu   Cmd7-End      Cmd12-How to use help      Home-Sign on menu

Ready for option number or command

                                                    (c) 1984 IBM Corp.
```

Note: The display shown is the standard menu for the system. Your system may use a different menu than the one shown.

Continue
↓
B.27

B.27

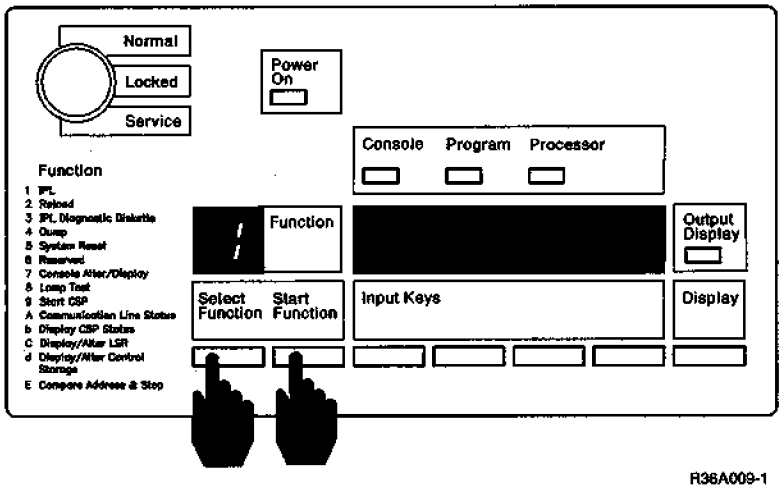
Do the following:

1. On item 1 of the "Problem Summary Form" on which you described the original problem, report that you have saved diagnostic data on diskettes. Also report that you have prepared APAR diskettes and you completed the APAR procedure.
2. Call for software service. Save the completed "Problem Summary Form" for the service representative.
3. End problem determination. Continue operating the system.

B.28

Do the following:

1. Turn the Security switch to the Normal position.
2. Press the Select Function key.
3. Press the Start Function key to do an initial program load.



When the Security switch is in the Normal position, you will get a 1 displayed in the Function display if you press the Select Function key.

↓
B.29

B.29

Do the following:

1. Get the copy of the "Problem Summary Form" on which you recorded the original problem.
2. On item 2 of the form on which you recorded the problem, record any SRC that you have and the time the problem happened.
3. Call for hardware service. Save the completed "Problem Summary Form" for the service representative.
4. End problem determination.

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