Problem Determination Guide

GA33-0086-2

3720 3721

Communication Controllers

IBM

IBM 3720 Models 1, 2, 11, and 12
IBM 3721 Models 1 and 2
Communication Controllers

Problem Determination

System/370, 30xx, 4300, and 9370 Processors

Preface

The 3720/3721 Communication Controllers Problem Determination Guide is designed to help the teleprocessing specialist to identify 3720 problems. This manual contains:

- Problem Determination procedures

- Alarms, hexadecimal codes

- Some 3720 functions you may need to identify 3720 problems

- A 3720 bibliography

- An index that contains also entries from:

    - The 3720/3721 Communication Controller Operator's Guide

    - The 3720/3721 Communication Controller Extended Services manual.

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Select the Most
Appropriate
Symptom

Problem Determination Start Page

GO TO
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LOOK AT THE POWER CONTROL SWITCH

IF

| HOST WITH AUTO POWER ON / LOCAL / NETWORK WITH AUTO POWER ON | | |

Check the Power switch on the control panel.	If it is on Power Off, set it to Power On.
Ask host operator if connected hosts are powered off.	If powered off, normal condition. 3720 will be powered on as soon as at least one host is powered on.
Check the Power Check lamp on the control panel.	If on : Go to page 5-1.
Check the customer circuit breakers.	If necessary, restore power. Set Power Control to LOCAL Press Power switch to power Off then On. Set back Power Control to HOST.
Check if there is power at the outlet.	

IF

Go to page 1-2

IF

Go to page 1-3

If none of the above applies: ☏ H *(Go to page viii)*

In case of an emergency only:

- Power on the 3720 as follows:
  - Set the Power Control switch to LOCAL
  - Press General Reset switch
  - Press Power switch to power Off then On

- if the problem persists: ☏ H *(Go to page viii)*

IF

HOST
WITH AUTO
POWER ON

LOCAL

NETWORK
WITH AUTO
POWER ON

Check the Power Check lamp on the control panel.	If on : Go to page 5-1.

Check the customer circuit breakers.	If necessary, restore power. Then: Press Power switch to power Off then On.
Check if there is power at the outlet.	

If none of the above applies: ☎ H *(Go to page viii)*

IF

HOST
WITH AUTO
POWER ON

LOCAL

NETWORK
WITH AUTO
POWER ON

Check the Power Check lamp on the control panel.	If on : Go to page 5-1.

Check the customer circuit breakers.	If necessary, restore power. Then: Press Power switch to power Off then On.
Check if there is power at the outlet.	

If none of the above applies: ☎ H *(Go to page viii)*

    In case of an emergency only:

- Power on the 3720 as follows:
  - Set the Power Control switch to Local
  - Press Power Off
  - Wait 10 seconds
  - Press Power On

- If the problem persits: ☎ H *(Go to page viii)*

LOOK AT THE POWER CONTROL SWITCH

IF

Ask host operator if at least one of the connected hosts is powered on.

If it is, normal condition. 3720 will be powered off as soon as all hosts are powered off.

If none of the above applies: 📞H⟩ *(Go to page viii)*

In case of an emergency only, power off the 3720 by setting the Power switch to Power Off. The hexadecimal code 130 is then displayed. If you still cannot power off, trip the customer circuit breakers.

IF
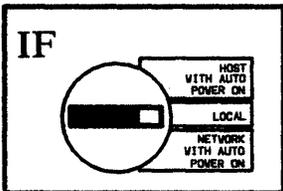
📞H⟩ *(Go to page viii)*

In case of an emergency only, power off the 3720 by tripping the customer circuit breakers.
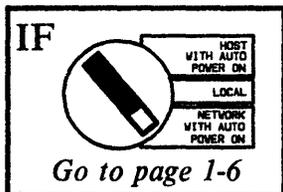
IF

Go to page 1-6

IF

HOST
WITH AUTO
POWER ON

LOCAL

NETWORK
WITH AUTO
POWER ON
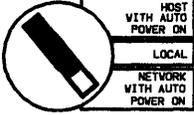
Ask the network host operator if a Remote Power Off
(RPO) command has been sent.

RPO NOT sent: Normal condition. The 3720 will
be powered off as soon as the
RPO command is received.

RPO sent :   ☏ H   *(Go to page viii)*

In case of an emergency only, power off
the 3720 by setting the Power switch to
Power Off. The hexadecimal code 130 is
then displayed. If you still cannot power
off, trip the customer circuit breakers.

LOOK AT THE POWER CONTROL SWITCH

IF

| HOST WITH AUTO POWER ON |
| LOCAL |
| NETWORK WITH AUTO POWER ON |
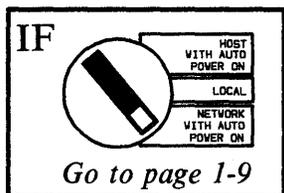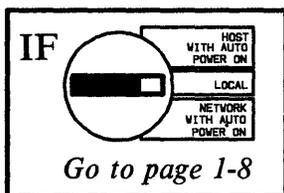
Ask host operator if all connected hosts are powered off.	If powered off, normal condition. 3720 will be powered on as soon as at least one host is powered on.

Read the hexadecimal code on the control panel.	**3 0 0** The retry capability is attempting to power on. If the code remains more than one minute: 🕻 H (*Go to page viii*) Any other code: Go to page 7-1.

IF

| HOST WITH AUTO POWER ON |
| LOCAL |
| NETWORK WITH AUTO POWER ON |

Go to page 1-8

Check the Power Check lamp on the control panel.	If on: Go to page 5-1.

Check the customer circuit breakers.	If necessary, restore power: Press Power Off
Check if there is power at the outlet.	Wait 10 seconds Press Power On.

IF

| HOST WITH AUTO POWER ON |
| LOCAL |
| NETWORK WITH AUTO POWER ON |

Go to page 1-9
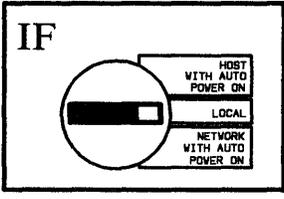
If none of the above applies: 🕻 H (*Go to page viii*)

In case of an emergency only:

- Power on the 3720 as follows:
  - Set the Power Control switch to Local
  - Press General Reset
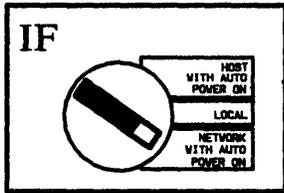 - Press Power switch to power Off then On.
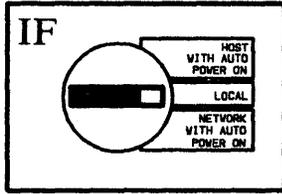
- If the problem persits: 🕻 H (*Go to page viii*)

IF		

Check the Power Check lamp on the control panel.	If on : Go to page 5-1.
Check the customer circuit breakers.	If necessary, restore power. Then: Press Power switch to power Off then On.
Check if there is power at the outlet.	

If none of the above applies, set the Power switch to Power Off, wait 10 seconds, then set it to Power On. If the 3720 does not power on:

H *(Go to page viii)*

HOST
WITH AUTO
POWER ON

LOCAL

NETWORK
WITH AUTO
POWER ON
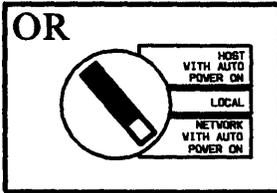
Ask the network host operator if a Remote Power Off (RPO) command has been sent.

- RPO NOT sent: Perform action required for the hex code displayed on the control panel. Go to Chapter 7-1.

- RPO sent: Normal condition. The 3720 has been powered off by the RPO command.

Read the hexadecimal code on the control panel.	`3` `0` `0` The retry capability is attempting to power on.
	If the code remains more than one minute:
	🕻 H (Go to page viii)
	Any other code: Go to page 7-1.

Check the Power Check lamp on the control panel.	If on : Go to page 5-1.

Check the customer circuit breakers.	If necessary, restore power. Then: Press Power switch to power Off then On.
Check if there is power at the outlet.	

If none of the above applies: 🕻 H   (Go to page viii)
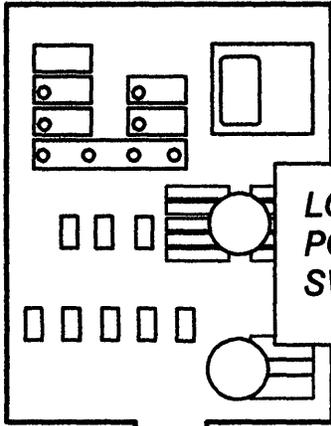
In case of an emergency only:

● Power on the 3720 as follows:
 - Set the Power Control switch to Local
 - Press Power Off
 - Wait 10 seconds
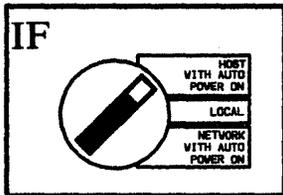 - Press Power On

● If the problem persists: 🕻 H   (Go to page viii)

Check the
Remote Power Off
lamp on the
control panel.

If the lamp is on, power on the 3720
as follows:

2. Press Power Off
Wait 10 seconds
Press Power On

1. Press Disable

3. Press Enable

Check the Power Check lamps on the control panel.	If any are on: Go to page 5-1.

Check the customer circuit breakers.	If necessary, restore power: Press Power Off
Check if there is power at the outlet.	Wait 10 seconds Press Power On.

If none of the above applies:	*(Go to page viii)*

From the Control Panel

> ☎ H *(Go to page viii)*
>
> In case of an emergency only, power off the 3720 by tripping the circuit breakers.

From the Host
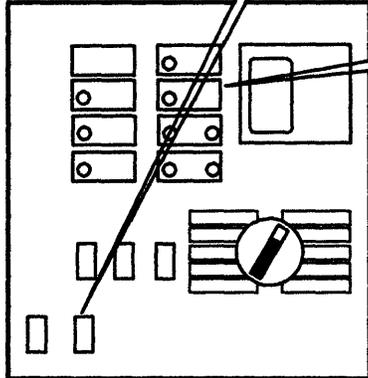
| Check the Remote Power Off switch on the control panel. | If on Disable:
  - Set it to Enable and wait until an RPO command is sent. |

If on Enable:
  - Check the Remote Power Off lamp.

  If off: Normal condition.
        The 3720 will be powered off as soon as the RPO command is received.

  If on: ☎ H *(Go to page viii)*

  - In case of an emergency only, try to power off from the control panel.

| Check the Remote Power Off lamp on the control panel. | If on: Ask the host operator if an RPO command has been sent.

- RPO NOT sent: ☎H *(Go to page viii)*

- RPO sent:
Normal condition. The 3720 has been powered off by the RPO command. If you are asked to power on, do as follows:
Set RPO switch to DISABLE
Press Power switch Off then On
Set RPO switch to ENABLE (if needed) |

| Check the Power Check lamps on the control panel. | If any are on: Go to page 5-1. |

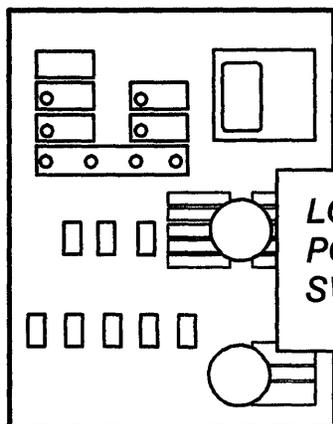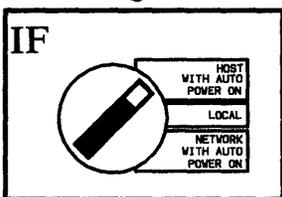| Check the customer circuit breakers. | If necessary, restore power:
Press Power Off
Wait 10 seconds
Press Power On. |
| Check if there is power at the outlet. | |

If none of the above applies: ☎H *(Go to page viii)*

In case of an emergency only, power on the 3720 using one of the Power On procedures documented in the *3720/3721 Communication Controller Operator's Guide*.

The Local Console Logon procedure is described in 3720/3721 Communication Controller Operator's Guide.
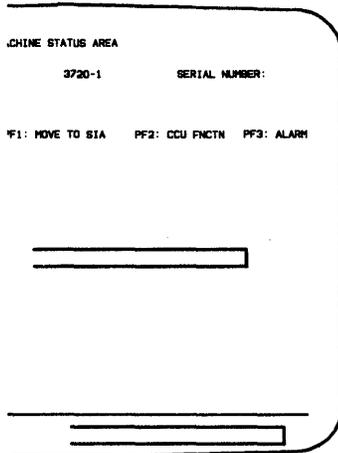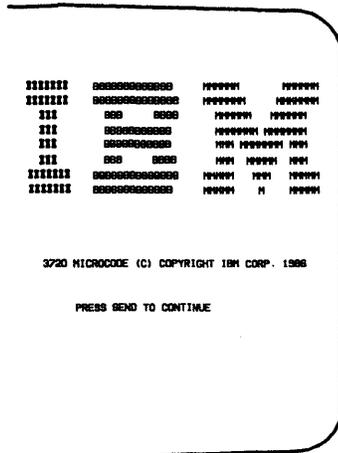
Operator Console is powered off.	*Power it on.*

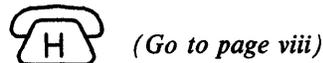|	
Not in emulation mode or incorrectly in emulation mode.	● *Check if appropriate diskette.* ● *Refer to the operator console documentation.*

3720 is powered off or MOSS is not IMLed.	*Power on the 3720 and IML MOSS from the control panel. Refer to 3720/3721 Communication Controller Operator's Guide.*

The IBM Copyright screen is not displayed after console power on.	*Go to page 2-2.*

No answer after correct password, or No answer during console session.	*Go to 2-9.*

Incorrect password.	*Contact the person in charge of passwords.*

Incomprehensible information or unexpected characters appear on the screen.	*1. Press PF1.* *2. Wait 10 seconds.* *3. Press PF1 again.*

TERMINAL DISCONNECTED FOR REMOTE CONSOLE	*Go to 2-3.*

On a 3161 only: COMM NOT READY 2 On a 3101 only: LINE CHECK 2 On an IBM PC emulating a 3101: SENDING is blinking and no answer	*Go to page 2-4.*

If none of the above applies:	*(Go to page viii)*

IIIIIII BBBBBBBBBBBB MMMMM MMMMM
IIIIIII BBBBBBBBBBBB MMMMM MMMMM
III BBB BBBB MMMMM MMMMM
III BBBBBBBBBB MMMMMM MMMMMM
III BBBBBBBBBB MMM MMMMMM MMM
III BBB BBBB MMM MMMMM MMM
IIIIIII BBBBBBBBBBBB MMMM MMM MMMMM
IIIIIII BBBBBBBBBBBB MMMM M MMMMM

3720 MICROCODE (C) COPYRIGHT IBM CORP. 1986

PRESS SEND TO CONTINUE

.CHINE STATUS AREA

3720-1   SERIAL NUMBER:

F1: MOVE TO SIA   PF2: CCU FNCTN   PF3: ALARM

No IBM Copyright Screen For Local Operator Console

- **Make sure that MOSS has been IMLed. For an IBM PC only, make sure that MOSS has been IMLed after setting your IBM PC to 3101 emulation mode.**

Check the Power Check lamp on the control panel.	If on: Go to page 5-1.

Check the MOSS Inoperative lamp on the control panel.	If on: Go to page 5-3.

Check the Remote Console Active lamp on the control panel.	If on: Go to page 2-3.

Check if TERMINAL DISCONNECTED FOR REMOTE CONSOLE is displayed.	If it is: Go to page 2-3.

Check the console cable and cable connections.	• Connect or reconnect correctly. • If the connection is correct, perform a Console Link Test. Go to page 9-1

Check if the console parameters have not been modified (speed, etc.).	If they have been modified, reset to original values. Refer to *3720/3721 Communication Controller System Integration.*

If none of the above applies :

- Set the Panel/Console switch to Panel unless already set.
- Activate the Remote CNSL Disconnect Request switch.

  If the IBM Copyright screen does not appear:
  - First perform the problem determination described in the operator console documentation.

  - If the problem persists: ⌜H⌝ *(Go to page viii)*

Terminal Disconnected for Remote Console is displayed, or Remote Console Active Lamp is On

The illustrations show a 3720 Model 2 or 12. The procedure is the same on a 3720 Model 1 or 11.

1. Set to Console.

2. Activate Remote CNSL Disconnect Request switch to invite the remote console operator to power off.

3. When the Remote Console Active lamp turns off, power on the local console.
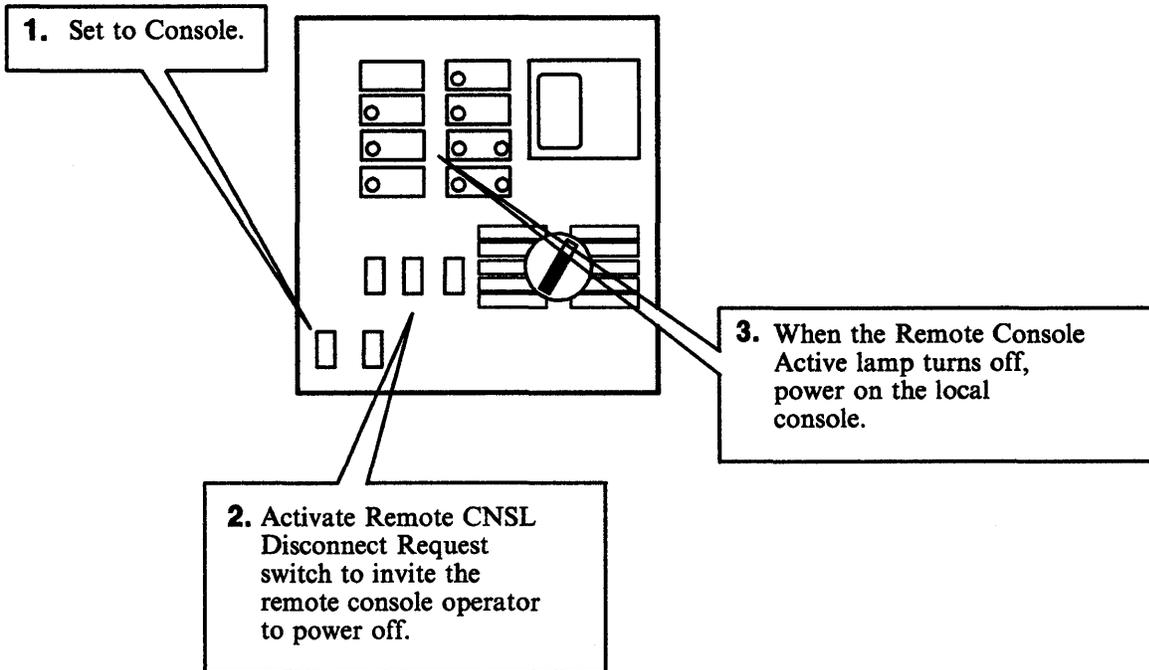
4. If the remote console operator does not log off, you can force him to log off by doing steps 5, 6 and 7.

5. Set to Panel.

6. Activate Remote CNSL Disconnect Request switch to disconnect the remote console.

7. Set to Console.
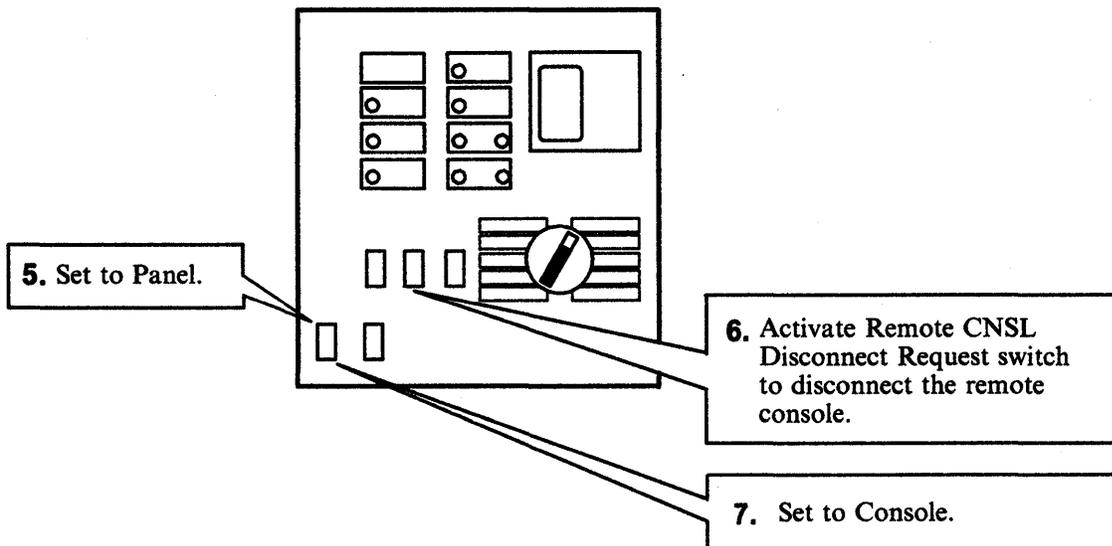
COMM NOT READY 2 is displayed on the 3161
LINE CHECK 2 is displayed on the 3101
SENDING is blinking on an IBM PC emulating a 3101

Check the MOSS Inoperative lamp.	If on: IML MOSS from the control panel.

Look at the control panel for the hexadecimal code.	Check, in Chapter 7, if this code is: ● An error code: Perform the action required for that code. **or** ● A normal processing code. IML MOSS as follows: - Set the Function Select switch to MOSS IML. - Activate the Function Start switch. When MOSS is IMLed, COMM NOT READY 2 (3161), LINE CHECK 2 (3101), or SENDING (IBM PC) disappears and the IBM Copyright screen is displayed. If not: - Check that the operator console parameters have not been modified. Refer to the *3720/3721 Communication Controller System integration.* - Make sure that the console cable is correctly plugged. If not, plug it correctly and IML MOSS from the control panel. - If you cannot solve the problem, perform a 3720 Console Link Test. Go to page 9-1.

The Remote Console Logon Procedure is described
in the 3720/3721 Communication Controller Operator's Guide.

Operator Console is powered off.	*Power it on.*

Not in emulation mode or incorrectly in emulation mode.	● *Check if appropriate diskette.* ● *Refer to the operator console documentation.*

3720 is powered off or MOSS is not IMLed.	*Power on the 3720 and IML MOSS from the control panel. Refer to 3720/3721 Communication Controller Operator's Guide.*

No tone.	● *Console modem may be in data mode. Set it to voice mode.* ● *Check telephone line connections.*

Busy tone.	● *Check your telephone number and try later.* ● *Ask if the telephone set of the modem at the 3720 is on-hook.*

Permanent ringing.	*Go to 2-7.*

No answer tone.	*Suspect the modem.*

Cannot switch the console modem to data mode.	● *Check console modem cable.* ● *Check if console modem is powered on and operational.* ● *Suspect remote console.*

No IBM Copyright screen.	*Go to 2-8.*

No answer after correct password. No answer during console session.	*Go to 2-9.*

more on next page...

3720 MICROCODE (C) COPYRIGHT IBM CORP. 1986

PRESS SEND TO CONTINUE

```
-INE STATUS AREA

        3720-1          SERIAL NUMBER:

I: MOVE TO SIA    PF2: CCU FNCTN   PF3: ALARM
```

Incorrect password.	*Contact the person in charge of passwords.*

Incomprehensible information or unexpected characters appear on the screen.	*1. Press PF1.* *2. Wait 10 seconds.* *3. Press PF1 again.*

TERMINAL DISCONNECTED	• *You entered an incorrect password four times.* • *You entered OFF on the remote console.* • *You have been disconnected by the local console operator.*
TIMEOUT OCCURED TERMINAL DISCONNECTED	• *Operator console not in use for 30 minutes.*

On a 3161 only: COMM NOT READY 2 On a 3101 only: LINE CHECK 2 On an IBM PC emulating a 3101: SENDING is blinking and no answer	*Log on the operator console. (Refer to the 3720/3721 Communication Controller Operator's Guide.) If the problem persists, call the local operator.*

If none of the above applies:

- First perform the problem determination described in the operator console documentation

- If the problem persists: [H] *(Go to page viii)*

Check the telephone number and try again.

Check if the associated telephone set is ringing.	If not, check the telephone line at the 3720 side.

Check with the local operator if:	
• The local console is active.	If it is, try later.
• The local modem is powered on, operational and in the auto-answer status.	If not, power it on, make it operational and in auto-answer status.
• The cable at the local modem console is correctly plugged.	If not, plug it correctly.
• MOSS Inoperative lamp is on.	If it is, the console cannot be connected to the 3720. Ask the local operator to perform the procedure given on page 5-3.

If none of the above applies:	Perform a 3720 Console Link Test. Go to page 9-1.
	———— Console Link Test results ————
	• Test NOT OK: ⌝H⌐ *(Go to page viii)*
	• Test OK: Run modem tests. Go to page 4-12.

No IBM Copyright Screen on Remote Operator Console

Make sure that the console modem is powered on, operational and in data mode.	If not, power it on, make it operational and in data mode.

Check that the remote console parameters have not been modified (speed, etc.)	If they have been modified, set them to their original values. Refer to *3720/3721 Communication Controller System Integration.*

Ask the local operator if the modem at the 3720 side is operational.	If it is, perform a 3720 Console Link Test. Go to page 9-1.

If none of the above applies:	- First perform the problem determination described in the operator console documentation. - If the problem persists: H *(Go to page viii)*

Local Operator Console

- Check the MOSS Inoperative lamp.

    - If off: Perform problem determination
       of the console.
    - If on:

        1. IML MOSS from the control
           panel as follows:

Remote Operator Console

- Check if line connection is still established.

- Ask the local operator to check the MOSS Inoperative
  lamp.
    - If off: Perform problem determination of the console.

    - If on:

        1. Ask the local operator to IML MOSS from the
           control panel.
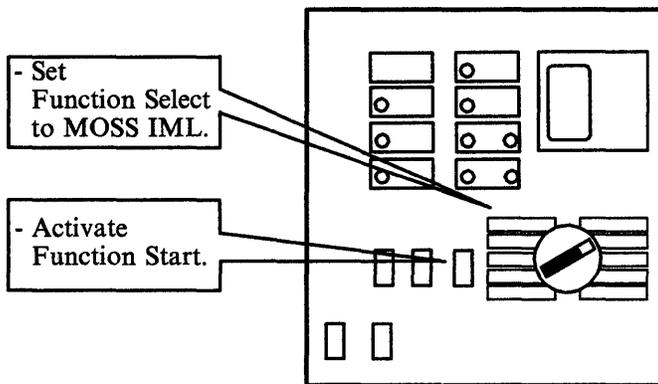
```
- Set
  Function Select
  to MOSS IML.

- Activate
  Function Start.
```

2. When the hex display shows
   FEF, FE7, 000 or blank,
   log on the operator console. Refer
   to the *3720/3721 Communication
   Controller Operator's Guide.*

3. If the problem persists:

   (Go to page viii)

2. When the hex display shows
   FEF, FE7, 000 or blank,
   log on the operator console. Refer
   to the *3720/3721 Communication
   Controller Operator's Guide.*

3. If the problem persists:

   (Go to page viii)
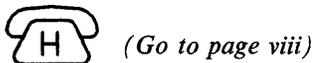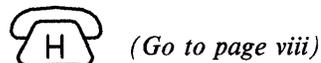
Check at the host console if there is a message.

- If the message indicates that the 3720 has NOT been successfully "varied-online":

  1. Check the physical path (channel switching unit initialization).

  2. Check if the 3720 channel address as defined in the host operating system corresponds to the NSC address defined for the corresponding 3720 channel adapter. The NSC address is the address that you defined at installation time for the service representative.

- If the message is UNSUCCESSFUL LOAD:

  1. Re-initialize the 3720. Refer to the *3720/3721 Communication Controller Operator's Guide*.

  2. At | F | F | 4 | do NOT load the control program.

  3. Take a control program dump from the host.

  4. 〈H〉 *(Go to page viii)*

- If any other message: Ask the host operator to perform appropriate action.

more one next page ...

Read the hexadecimal code on the control panel.
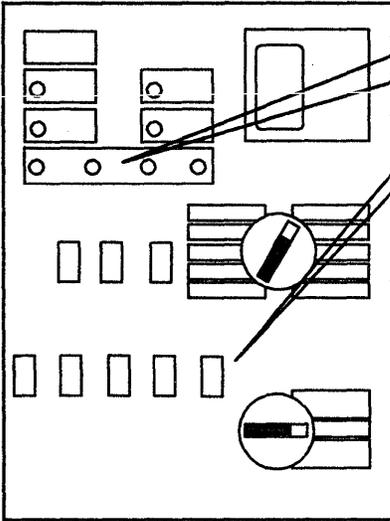
NOT | F | F | 4 | : Perform action required for the hexdadecimal cose. Go to 7-1.

| F | F | 4 | Check:

- Host loading generation parameters.
- Channel Adapters Disabled lamps and
- Channel Adapter Interface switches for the concerned channel adapters.

If:

lamp OFF
switch on Enbl

Check if there is a message at the host console. Go to the previous page.

lamp ON
switch on Enbl

☎H (Go to page viii)

lamp ON
switch on Dsbl

- Set Panel/Console switch to Panel.
- Set switch to Enbl and retry.

lamp OFF
switch on Dsbl

No action

Check the status of the following lamps on the control panel:
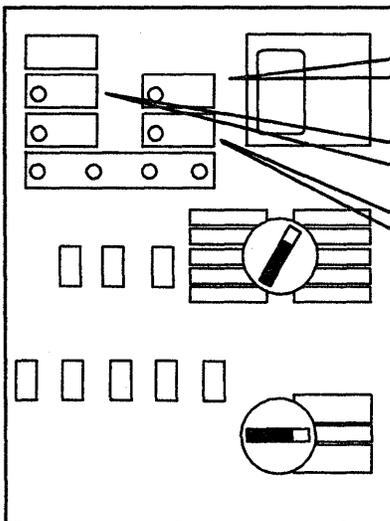
If:

Power lamp is off: Power on the 3720

MOSS Inoperative lamp is on: Go to 5-3.

Power Check lamp is on: Go to 5-1.

If none of the above applies:

☎H (Go to page viii)

Check the status of the following lamps on the control panel.	

IF:
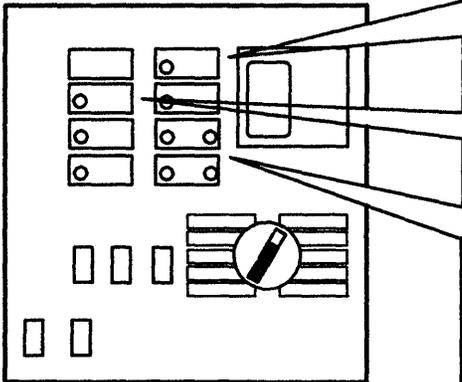
Power lamp is off: Power on the 3720.

MOSS Inoperative lamp is on: Go to 5-3.

Power Check lamp is on: Go to 5-1.

Read the hexadecimal code on the control panel.	NOT [F | F | 4] : Perform action required for the hexadecimal code. Go to 7-1. [F | F | 4] Check: - IPL port configuration: Refer to *3720/3721 Communication Controller Extended Services*. - Host loading generation parameters.

Check your modems.	Local and remote modems should be powered on and operational. Modem tests are listed on page 4-13.

Check the local and remote cables.	They should be correctly plugged.

more on next page ...

| Check at the host console if there is a message.	If any, perform action required for the host message. If message is UNSUCCESSFUL LOAD:
	1. Re-initialize the 3720. Refer to the *3720/3721 Communication Controller Operator's Guide*.
	2. At ⎡F⎪F⎪4⎤ do NOT load the control program.
	3. Take a control program dump from the host.
	4. ☎ S *(Go to page viii)*

If none of the above: Follow the Line Problems procedure on page 4-1.

If any message	Ask the host operator to perform the appropriate action.

Read the hexadecimal code on the control panel.	NOT ┌─┬─┬─┐ F │ F │ 4 └─┴─┴─┘ : Perform action required for the hexadecimal code. Go to 7-1. ┌─┬─┬─┐ F │ F │ 4 └─┴─┴─┘ If the 3720 was supposed to automatically load the control program from disk, the load could have failed for one of the following reasons: ● The automatic dump/load option was turned off ● There is no active load module on the disk ● A dump was required and failed because a dump already exists on the disk. If you suspect one these reasons, re-load the controller from the host. Use the Disk IPL Information (DII) function to ensure: ● The automatic dump/load option is set ● An active load module is on the disk ● No control program dump is on the disk.

When you encounter a line problem, follow the procedure below.

1 Power on the operator console.

2 Log on the operator console. The logon procedures are given in *3720/3721 Communication Controller Operator's Guide*.

3 Once you have entered the password, the following screen is displayed. Check if there is an alarm :

- If alarm : Go to page 6-1.

- If no alarm: Go to step 4.

```
CUSTOMER ID:                          3720-1           SERIAL NUMBER:


SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE    OFF: LOGOFF    PF1: CURSOR TO SIA   PF2: CCU FNCTN   PF3: ALARM

CONFIG DATA FILE : CDF    LINE DESCR FILE  : LDF    MACHINE LVL TABLE : MLT
CONTROL PRGM PROC : C     LINE INTERF DPLY : LID    MICROCODE FIXES   : MCF
DISK FUNCTIONS   : DF     LINE THRESHOLD   : LTH    PANEL FUNCTIONS   : PAF
DISK IPL INFO    : DII    LINK IPL PORTS   : LKP    PASSWORDS         : P
EVENT LOG DISPLAY : E     LINK TEST        : LT     PORT SWAP FILE    : PS
IML MOSS         : IML    LOAD LK TEST REQ : LOQ    TOKEN RING INTR   : TRI
IML ONE SCANNER  : IS     LOAD LK TEST RESP: LOS    WRAP TEST         : VT
IPL 3720         : IPL




ALARM:
_____
```

4 [L] [I] [D] [SEND]   To select the Line Interface Display function.

5 Enter the decimal address of the line then [SEND]

6 [PF6] The following screen is displayed. Check the line definition parameters before going to step 7.

```
CUSTOMER ID:                    3720-1          SERIAL NUMBER:
FUNCTION ON SCREEN: LINE INTERF DPLY

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE   OFF: LOGOFF    PF1: MOVE TO SIA    PF2: CCU FNCTN   PF3: ALARM


        - ENTER A DECIMAL LINE ADDRESS ===>

    LINE 42 10 IN SCANNER 3        CCITT V24 OR EIA RS232C

          .CONTROL PROGRAM:    NCP
          .LINE TYPE:          NON SWITCHED
          .PROTOCOL:           SDLC
          .TRANSMISION MODE:   FULL DUPLEX
          .CABLE ID:           MODEM ATTACHMENT
          .CLOCK:              BUSINESS MACHINE -INTERNAL
          .SPEED:              1200 BPS

      PF5:REFRESH    PF6:LINE PARAMETERS  PF7:LEADS  PF9:DATA
```

7 If: Go to

CCITT V.24	non-switched	modem attachment	4-3
CCITT V.24	switched	modem attachment	4-11
CCITT V.24/V.35		direct attachment	4-5
CCITT V.35		modem attachment	4-3
CCITT V.25			4-7
CCITT X.21		modem attachment	4-9

More information on modem interface is given in
3720/3721 Communication Controller Extended Services,
under the Line Interface Display function.

8 [PF7] To display the Control Lead screen.

9 [PF5] To start Refresh.

10 Ask the host operator to reactivate the line.

11 Check the status of | DTR | and | DSR |

```
CUSTOMER ID:                        3720-1              SERIAL NUMBER:
FUNCTION ON SCREEN:LINE INTERF DPLY

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE   OFF: LOGOFF    PF1: MOVE TO SIA    PF2: CCU FNCTN   PF3: ALARM


    ENTER A DECIMAL LINE ADDRESS FROM 0 TO 27 AND 32 TO 63 ===>

    LINE 42 10 IN SCANNER 3           CCITT V24 OR EIA RS232C

    XMIT CMD: SOLD XMIT DATA          RCV CMD: SOLD RCV DATA
          STATUS: IN-PROGRESS              STATUS: IN-PROGRESS

    MODEM-OUT DTR ON                  MODEM-IN DSR ON
              RTS ON                           RFS ON
              NS                               RI  ON
              DRS                              CD  ON
              MT                               TI

    PF5:REFRESH  PF6:LINE PARAMETERS  PF7:LEADS  PF8:DATA
```

DTR is off	• Check if 'Activate' command on appropriate line. If it is, perform a Tailgate Wrap test. Go to page 8-1.

——————— Tailgate Wrap test results ———————

• Test NOT OK: ⌂H⌂ *(Go to page viii)*

• Test OK: [PF6] Check the displayed line parameters with the network operator. If correct, suspect host software.

DTR is on and DSR is off	• Check if modems are ready and operational. • Check if cables are correctly plugged. • Perform a Tailgate Wrap test. Go to page 8-1.

——————— Tailgate Wrap test results ———————

• Test NOT OK: ⌂H⌂ *(Go to page viii)*

• Test OK: - Suspect the modem
      (Modem tests are listed on page 4-13.)
   - Suspect the LIC cable.

DTR and DSR are on	• Make sure that the remote control unit and the modems (local and remote) are ready and operational. • Perform a Tailgate Wrap test. Go to Chapter 8-1.

——————— Tailgate Wrap test results ———————

• Test NOT OK: ⌂H⌂ *(Go to page viii)*
• Test OK, check:
      - Modem: modem tests are listed on page 4-13.
      - Remote control unit: perform appropriate remote control unit tests.
      - The displayed line parameters with the network operator:
         [PF6] To display line parameters.
      - Network

8 [PF7] To display the Control Lead screen.

9 [PF5] To start Refresh.

10 Ask the host operator to reactivate the line.

11 Check the status of DTR, RTS   DSR, RFS

```
CUSTOMER ID:                        3720-1          SERIAL NUMBER:
FUNCTION ON SCREEN:LINE INTERF DPLY

SYSTEM INPUT AREA (SIA) ==>
T: TERMINATE   OFF: LOGOFF    PF1: MOVE TO SIA    PF2: CU FNCTN   PF3: ALARM


    ENTER A DECIMAL LINE ADDRESS FROM 0 TO 27 AND 32 TO 63 ==>

    LINE 42 10 IN SCANNER 3          CCITT V24 OR EIA RS232C

    XMIT CMD: SDLC XMIT DATA         RCV CMD: SDLC RCV DATA
         STATUS: IN-PROGRESS              STATUS: IN-PROGRESS

    MODEM-OUT DTR ON                 MODEM-IN DSR ON
              RTS ON                          RFS ON
              NS                              RI  ON
              DRS                             CD  ON
              MT                              TI

    PF5:REFRESH  PF6:LINE PARAMETERS  PF7:LEADS  PF8:DATA
```

DTR, RTS, DSR, RFS are all off	• Check if 'Activate' command on appropriate line. If it is, perform a Tailgate Wrap test. Go to page 8-1.
	——————— Tailgate Wrap test results ———————
	• Test NOT OK: 🕿 H (Go to page viii)
	• Test OK: [PF6] Check the displayed line parameters with the network operator. If correct, suspect host software.

DTR, RTS, DSR, RFS are all on	• Check if the cable is correctly plugged and the remote control unit is ready and operational. If it is, perform a Tailgate Wrap test. Go to page 8-1.
	——————— Tailgate Wrap test results ———————
	• Test NOT OK: 🕿 H (Go to page viii)
	• Test OK, check:
	- LIC cable.
	- Remote control unit: perform appropriate control unit tests.
	- The displayed line parameters with the network operator:
	[PF6] To display the line parameters.
	- The programmable line speed definition. Refer to *3720/3721 Communication Controller Extended Services*.

DTR is on and DSR, RTS, RFS are off	• Check if the cable is correctly plugged. If it is, perform a Tailgate Wrap test. Go to page 8-1.
	——————— Tailgate Wrap test results ———————
	• Test NOT OK: 🕿 H (Go to page viii)
	• Test OK: Suspect the LIC cable.

8 [PF7] To display the Control Lead screen.

9 [PF5] To start Refresh.

10 Ask the host operator to reactivate the line.

11 Check the status of [PWI] and [CRQ]

```
CUSTOMER ID:                          3720-1           SERIAL NUMBER:
FUNCTION ON SCREEN: LINE INTERF DPLY

SYSTEM INPUT AREA (SIA) ==>
T: TERMINATE   OFF: LOG OFF    PF1: MOVE TO SIA    PF2: CCU FNCTN   PF3: ALARM


        ENTER A DECIMAL LINE ADDRESS FROM 0 TO 21 AND 22 TO 63 ==>

        LINE 42 10 IN SCANNER 3         CCITT V25

        XMIT CMD: SDLC XMIT DATA        RCV CMD: SDLC RCV DATA
             STATUS: IN-PROGRESS            STATUS: IN-PROGRESS

        MODEM-OUT PWI ON               MODEM-IN CRQ ON
                  PND ON                        DPR ON
                  ACR ON                        RSE ON



        PF5:REFRESH  PF6:LINE PARAMETERS  PF7:LEADS  PF8:DATA
```

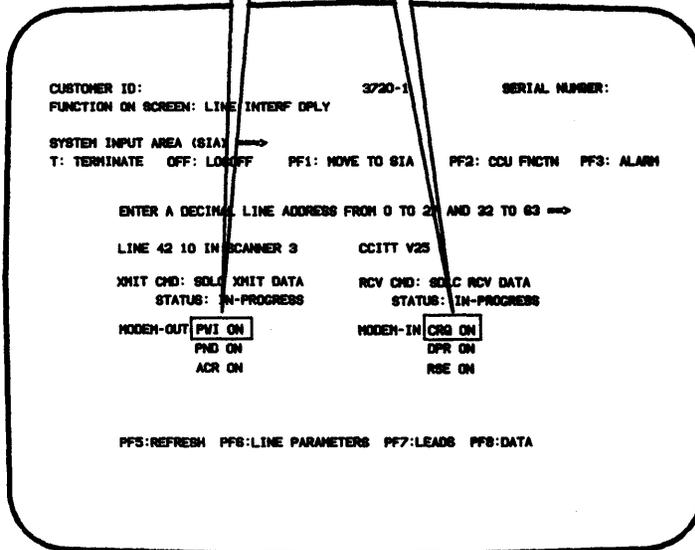|	

**PWI and CRQ
are both on**
	• Make sure that the remote control unit, the modems (local and remote) and the autocall unit (ACU) are ready and operational.
	
	• Perform a Tailgate Wrap test. Go to page 8-1.
	
	——————— Tailgate Wrap test results ———————
	
	• Test NOT OK: ⌇H⌇ *(Go to page viii)*
	• Test OK, check:
	       - Modem: Modem tests are listed on page 4-13.
	       - Remote control unit: Perform appropriate
	         remote control unit tests.
	       - Autocall unit: Perform appropriate ACU tests.
	       - The displayed line parameters with the
	         network operator:
	
	         [PF6] To display the line parameters.
	       - Network.

PWI is on CRQ is off	• Check if 'Activate' command on appropriate line. If it is, perform a Tailgate Wrap test. Go to page 8-1. ——————— Tailgate Wrap test results ——————— • Test NOT OK: ⌇H⌇ *(Go to page viii)* • Test OK: [PF6] Check the displayed line parameters with the network operator. If correct, suspect host software.

PWI and CRQ are both off	• Check if 'Active' command on appropriate line. • Check if cable is correctly plugged. • Perform a Tailgate Wrap test. Go to page 8-1. ——————— Tailgate Wrap test results ——————— • Test NOT OK: ⌇H⌇ *(Go to page viii)* • Test OK: - Suspect the autocall initialization. - Suspect the LIC cables.

8 `PF7` To display the Control Lead screen.

9 `PF5` To start Refresh.

10 Ask the host operator to reactivate the line.

11 Check the status of $\boxed{C}$ and $\boxed{I}$

```
CUSTOMER ID:                        37XX-1          SERIAL NUMBER:
FUNCTION ON SCREEN:LINE INTERF DPLY

SYSTEM INPUT AREA (SIA) ==>
T: TERMINATE   OFF: LOGOFF    PF1: MOVE TO SIA      PF2: CCU FNCTN   PF3: ALARM


      ENTER A DECIMAL LINE ADDRESS FROM 0 TO 27 AND 32 TO 63 ==>

      LINE 42 10 IN SCANNER 3         CCITT V.5

      XMIT CMD: SDLC XMIT DATA        RCV CMD: SDLC RCV DATA
           STATUS: IN-PROGRESS            STATUS: IN-PROGRESS

      MODEM-OUT [C ON]               MODEM-IN [I ON]




      PF5:REFRESH  PF6:LINE PARAMETERS  PF7:LEADS  PF8:DATA
```

C and I are both off or C is off and I is on	• Check if 'Activate' command on appropriate command. If it is, perform a Tailgate Wrap test. Go to page 8-1.
	──────── Tailgate Wrap test results ────────
	• Test NOT OK: 〔H〕 *(Go to page viii)* • Test OK: 〔PF6〕 Check the displayed line parameters with the network operator. If correct, suspect host software.

C is on and I is off	• Check if the cable is correctly plugged. If it is, perform a Tailgate Wrap test. Go to page 8-1.
	──────── Tailgate Wrap test results ────────

	• Test NOT OK: 〔H〕 *(Go to page viii)*
	
	• Test OK: - Suspect the modem.
	      (Modem tests are listed on page 4-13.)
	
	      - Suspect the LIC cable.

C and I are both on	• Check if the remote control unit and the modems (local and remote) are ready and operational. If they are not, perform a Tailgate Wrap test. Go to page 8-1.
	──────── Tailgate Wrap test results ────────

	• Test NOT OK: 〔H〕 *(Go to page viii)*
	
	• Test OK, check:
	      - Modem: Modem tests are listed on page 4-13.
	      - Remote control unit: Perform appropriate remote control unit tests.
	      - The displayed line parameters with the network operator:
	      〔PF6〕 To display the line parameters.
	      - Network.

• Check if the remote control unit and the modems (local and remote) are ready and operational. If they are, perform a Tailgate Wrap test. Go to page 8-1.

Tailgate Wrap test results

• Test NOT OK: ⌇H⌇ *(Go to page viii)*

• Test OK, check:

      - Modem: modem tests are listed on page 4-13.

      - Remote control unit: Perform appropriate remote control unit tests.

      - The displayed line parameters with the network operator:

        [PF6] To display the line parameters.

If available, perform the following stand-alone modem tests, described in the modem documentation:

1. Local modem self test

2. Remote modem self test

3. Modem line test (end-to-end)

```
┌────────┐   ┌──────────┐   ┌────────┐         ┌────────┐   ┌──────────┐
│        │   │ Channel- │   │ Local  │   /     │ Remote │   │          │
│  Host  │───│ attached │───│ modem  │──/──────│ modem  │───│Remote unit│
│        │   │  3720    │   │        │         │        │   │          │
└────────┘   └──────────┘   └────────┘         └────────┘   └──────────┘

                         ( 1. Self test )        ( 2. Self test )

                       (       3. Modem line test        )
```
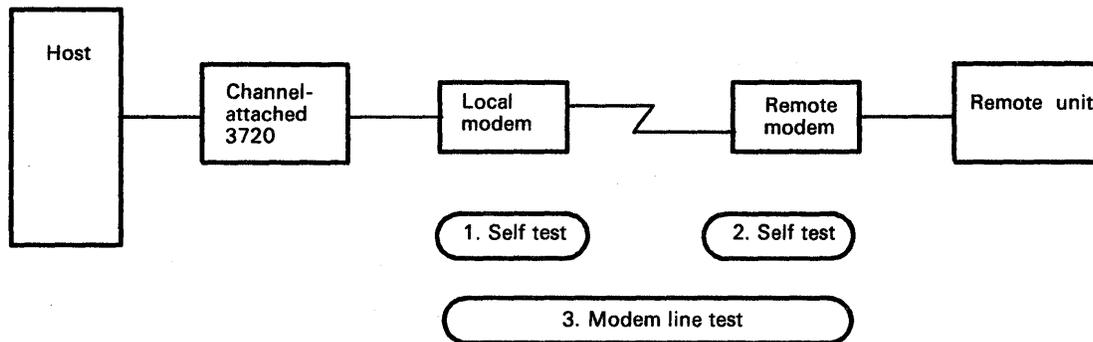
If available, perform the following tests:

- Stand-alone modem tests, described in the modem documentation:
    1. Local modem self test
    2. Remote modem self test
    3. Modem line test (end-to-end)
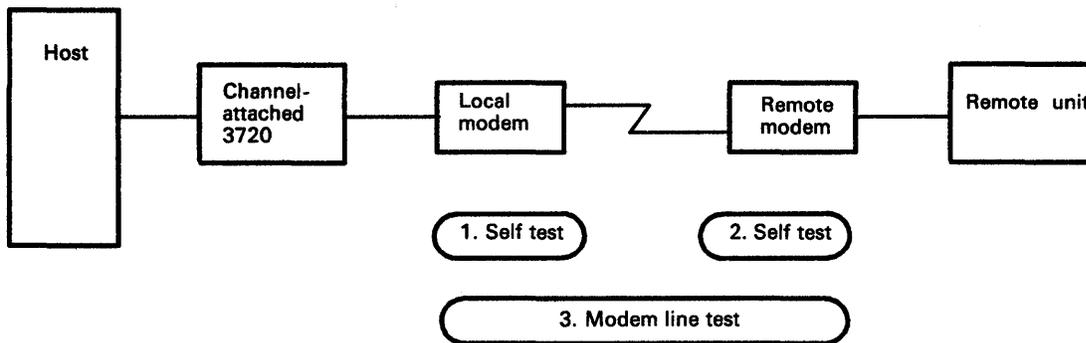
- Link level 2 test from the host

    - If test OK: suspect remote control unit or host generation parameters

- Local Loopback test (loop 3):
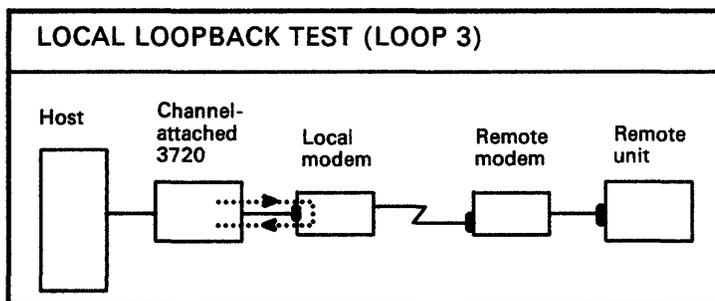
- Remote Loopback test (loop 2):
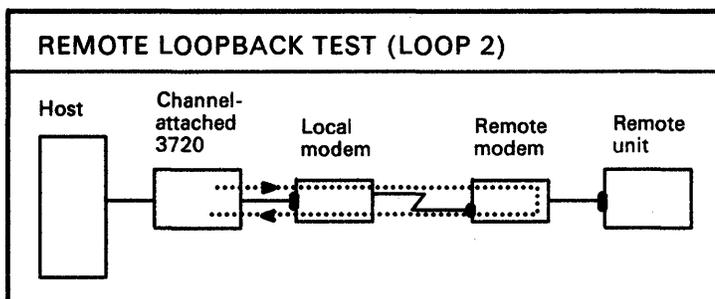
When you encounter a TRI problem, follow the procedure below.

1 Power on the operator console.

2 Log on the operator console. The logon procedures are given in *3720/3721 Operator's Guide*.

3 Once you have entered the password, the following screen is displayed. Check if there is an alarm :

- If alarm : Go to page 6-1.

- If no alarm: Go to step 4.

```
CUSTOMER ID:                    3720-1X        SERIAL NUMBER:


SYSTEM INPUT AREA (SIA) ──>
T: TERMINATE    OFF: LOGOFF     PF1: CURSOR TO SIA  PF2: CCU FNCTN   PF3: ALARM

CONFIG DATA FILE : CDF    LINE DESCR FILE : LDF    MACHINE LVL TABLE : MLT
CONTROL PRGM PROC: C      LINE INTERF DPLY: LID    MICROCODE FIXES   : MCF
DISK FUNCTIONS   : DF     LINE THRESHOLD  : LTH    PANEL FUNCTIONS   : PNF
DISK IPL INFO    : DII    LINK IPL PORTS  : LKP    PASSWORDS         : P
EVENT LOG DISPLAY: E      LINK TEST       : LT     PORT SWAP FILE    : PS
IML MOSS         : IML    LOAD LK TEST REQ: LQQ    TOKEN RING INTR   : TRI
IML ONE SCANNER  : IS     LOAD LK TEST RESP: LQS   WRAP TEST         : WT
IPL 3720         : IPL




ALARM: _____
```

Note: All the Specific Token-Ring Terms are described in the Token-Ring documentation.

4 [T] [R] [I] [SEND]   *To select the Token-Ring*
Interconnection function.

```
                          Machine Status Area

CUSTOMER ID:                        3720-1X          SERIAL NUMBER:
FUNCTION ON SCREEN: TRI

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE   OFF: LOGOFF     PF1: MOVE TO SIA     PF2: CCU FNCTN   PF3: ALARM


                          TRA/TIC SELECT

- ENTER A DECIMAL LINE ADDRESS XX TO YY    ===>   __


                    TRA‡   LINE ADDRESS     TIC'S
                    02     016    017       1  2



- TYPE 'A' TO ALLOW 'ACTIVATE LINK' COMMAND ==>   ____

PRESS SEND TO CONFIRM
```

5 Enter the decimal address of the line then   [SEND]

6 [PF6]   The following screen is displayed.

```
                        Machine Status Area


CUSTOMER ID:                          3720-1X          SERIAL NUMBER:
FUNCTION ON SCREEN: TOKEN-RING INTR

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE   OFF: LOGOFF    PF1: MOVE TO SIA    PF2: CCU FNCTN   PF3: ALARM


                      TOKEN-RING INTERCONNECTION


      NODE ADDR:  _____    RING STATUS:        Ⓐ
      GROUP ADDRESS:   _____    SIGNAL LOSS:       __
      FUNCTIONAL ADDR: _____    HARD ERROR:        __
                                   SOFT ERROR:        __
      IR  __   Ⓒ                   TRANSMIT BEACON:   __
      BR  __                       LOBE WIRE FAULT:   __
                                   AUTO-REMOVAL ERROR 1: __
                                   REMOVE RECEIVED:   __
      < TRI ERROR      Ⓑ          > COUNTER OVERFLOW: __
      <   MESSAGE    AREA          > SINGLE STATION:   __
                                   RING RECOVERY:     __

        PF5:  REFRESH      PF6:  SELECT
    _____
```

Ⓐ   Token-Ring Status: Selected bits from the token-ring status block (from
     NTRI). The indicators are either ON or blank. Refer to page 4-18

Ⓑ   A message indicating an error condition of the selected TIC if one exists.
     Refer to page 4-20.

Ⓒ   TRM activity information: A display of the IR/BR bits of the selected TRA
     and TIC (ON or blank). The IR bit indicates that an interrupt is pending
     from the selected TIC. The BR bit indicates that a data transfer request
     (DMA) is pending for the TIC. A change of these values during refresh
     indicates activity for the selected TIC.

     Notes: 1. The TRI ERROR messages are described in the   *3720 / 3721*
                Extended Services.

             2. If you need to use the *IBM Token-Ring Network Problem
                Determination*, write down the information given on your
                screen, and use it in conjunction with page 4-23

TOKEN-RING Status Area: Field Ⓐ

```
                          Machine Status Area

CUSTOMER ID:                      3720-1X        SERIAL NUMBER:
FUNCTION ON SCREEN: TOKEN-RING INTR

SYSTEM INPUT AREA (SIA) ——>
T: TERMINATE   OFF: LOGOFF    PF1: MOVE TO SIA    PF2: CCU FNCTN   PF3: ALARM

                       TOKEN-RING INTERCONNECTION


     NODE ADDR:  _____      RING STATUS:           Ⓐ
     GROUP ADDRESS:    _____        SIGNAL LOSS:         —
     FUNCTIONAL ADDR:  _____        HARD ERROR:          —
                                      SOFT ERROR:          —
     IR  —  Ⓒ                       TRANSMIT BEACON:     —
     BR  —                            LOBE WIRE FAULT:     —
                                      AUTO-REMOVAL ERROR 1: __
                                      REMOVE RECEIVED:     —
     < TRI ERROR            Ⓑ      > COUNTER OVERFLOW:    —
     <   MESSAGE    AREA           > SINGLE STATION:      —
                                      RING RECOVERY:       —

          PF5:  REFRESH      PF6:  SELECT
```

SIGNAL LOSS + HARD ERROR + TRANSMIT BEACON	• Unplug the TIC cable from the 8228 Multiple Access unit: • Reactivate this TIC. • Press ⌈**PF5**⌉ for REFRESH: -IF you have an OPEN ERROR message go to FUNCTION FAILURE page 4-21. -If the Ring Status display is ON for LOBE WIRE FAULT (without any other status ON), replug the TIC cable to the 8228 IBM Multiple Access unit and refer to page 4-23 in conjunction with the *IBM Token-Ring Network Problem Determination Guide*.

HARD ERROR (only)	• Reactivate the link. • Press ⌈**PF5**⌉ • Refer to page 4-23 in conjunction with the *IBM Token-Ring Network Problem Determination Guide*

LOBE WIRE FAULT (without OPEN ERROR MESSAGE)	• Check that the cable is connected to the multiple access unit: • Reactivate the link for this TIC. Press PF5 • If the same symptom occurs, change the TRA cable. • Otherwise use new symptom to continue the problem determination. • If the problem persists: H

AUTO REMOVAL ERROR	Reactivate the line for this TIC. Press PF5 If the problem persists: H

REMOVE RECEIVED	Check the reason why the 3720 was forced off the ring. When the problem is corrected, reactivate the line to this TIC.

SINGLE STATION	If other Stations are known to be working on the ring, try another 8228 plug. If the problem persists, refer to page 4-23 in conjunction with the *IBM Token-Ring Network Problem Determination Guide*.

ANY OTHER COMBINATION	Reactivate the line for this TIC. Press PF5 If the problem persists: H

TRI ERROR Message Area: Field **B**

```
          ┌───────────────────────────────────────────────────┐
          │                 Machine Status Area                │
          │                                                    │
          │ CUSTOMER ID:              3720-1X      SERIAL NUMBER: │
          │ FUNCTION ON SCREEN: TOKEN-RING INTR                │
          │                                                    │
          │ SYSTEM INPUT AREA (SIA) ━━▷                        │
          │ T: TERMINATE  OFF: LOGOFF   PF1: MOVE TO SIA   PF2: CCU FNCTN   PF3: ALARM │
          │                                                    │
          │              TOKEN-RING INTERCONNECTION            │
          │                                                    │
          │   NODE ADDR: _____   RING STATUS:      Ⓐ    │
          │   GROUP ADDRESS: _____     SIGNAL LOSS:    —     │
          │   FUNCTIONAL ADDR: _____   HARD ERROR:     —     │
          │                              SOFT ERROR:     —     │
          │   IR  —  Ⓒ                   TRANSMIT BEACON:  —   │
          │   BR  —                      LOBE WIRE FAULT:  —   │
          │                              AUTO-REMOVAL ERROR 1: _ │
          │                              REMOVE RECEIVED:   —  │
          │   < TRI ERROR       Ⓑ   > COUNTER OVERFLOW:   —   │
          │   <  MESSAGE    AREA     > SINGLE STATION:     —   │
          │                           RING RECOVERY:      —   │
          │                                                    │
          │     PF5: REFRESH    PF8: SELECT                    │
          │ ─────────────────────────────────────────────────│
          └───────────────────────────────────────────────────┘
```

1. BRING-UP ERROR MESSAGES

BRING-UP ERROR X 1 to 6	Activate the link from the host. If the problem persists: ☎ H

2. INITIALIZATION ERROR MESSAGES

INITIALIZATION ERROR XX 1 to 7	Check the installation / Generation parameters. When corrected, reactivate the link to this TIC. If the problem persists: ☎ S

INITIALIZATION ERROR XX 8 to 13	Reactivate the link to this TIC. If the problem persists: ☎ H

3. OPEN-ERROR MESSAGES

INVALID PARAMETER Note: (No specific value)	• Check the installation / generation parameters. When corrected, reactivate the link to this TIC. • If the problem persists: ☎ **S**

FUNCTION FAILURE
 	
1
	• Unplug the lobe cable from the 8228 Multiple Access unit.
	• Reactivate the link to this TIC.
	• If the same symptom occurs, unplug the TRA cable for this TIC and reactivate the link:
	
	    1. If the LOBE WIRE FAULT is ON in the Ring Status area (without any other status ON) change the TRA cable.
	
	    2. Otherwise use new symptom to continue the problem determination.

SIGNAL LOSS **2**	• Reactivate the link to this TIC. • Press [**PF5**] • If the problem persists, refer to page 4-23 in conjunction with the *IBM Token-Ring Network Problem Determination Guide*.

TIMEOUT **5**	• Reactivate the link to this TIC. • If the problem persists, refer to page 4-23 in conjunction with the *IBM Token-Ring Network Problem Determination Guide*.

RING FAILURE **6**	• Reactivate the link to this TIC. • If the problem persists, refer to page 4-23 in conjunction with the *IBM Token-Ring Network Problem Determination Guide*.

RING BEACONING 7	• Unplug the lobe cable from the 8228 Multiple Access unit.
	• Reactivate the link to this TIC.
	1. If the LOBE WIRE FAULT is ON in the Ring Status area (without any other status ON), refer to page 4-23 and use it in conjunction with the *IBM Token-Ring Network Problem Determination Guide*.
	2. If a different message or status appears, follow the procedure described for this symptom.

DUPL NODE ADDRESS 8	• Check the installation / generation address for this TIC.
	• If there is no problem, refer to page 4-23 in conjunction with the *IBM Token-Ring Network Problem Determination Guide*.

REQUEST PARAMETER 9	• Reactivate the link to this TIC.
	• If the problem persists: ☏ H

REMOVE RECEIVED 10	Check with the Token-Ring operator. Correct the problem, and then reactivate the link to this TIC.

IMPL FORCE RECEIVED 11	The adapter is in the same state as after initialization and will have to be opened again.

Receive and Transmit Errors

If a receive or transmit error appears in the TRI error message area, an Activate Link should be tried again from the host. If persistent, call program service.

Use this page as a reference in conjuction with the IBM Token-Ring Network Problem
Determination Guide and continue your problem determination.

The following table helps you to clarify the instructions given in the IBM Token-Ring
Network Problem Determination Guide when the 3720 is the 'Observer Terminal'.

When the IBM Token-Ring Network Problem Determination Guide says:	Understand:
Contact your service supplier.	(telephone symbol with H)
Record the address of the beaconing device and its NAUN, or Record the address of the device two and device one.	Refer to the NPDA Link Configuration/Detail screen for the Alert corresponding to the ring beaconing condition.
Remove the defective device from the ring by resetting it or tuning its power off.	Deactivate link for this TIC at the host. Unplug the cable from the access unit.
Remove the device with the highest error count...	This information must be obtained from the Ring Error Monitor. Contact the Token-Ring operator.
Restart the network application program on the removed device.	Activate the link for this TIC at the host.
...run the adapter diagnostic...	Activate the link for this TIC at the host. Invoke the TRI function from the MOSS. Look for Alarms, bring-up or initialization errors. Any of these indicates failure.
...use this device to determine ring status by loading a network application program.	Activate the link for this TIC at the host. Check NPDA alerts or invoke the TRI function from the MOSS.
Does the Ring Diagnostic indicate...? or Does the observer terminal indicate...?	Does the TRI function indicate an open error or a bad ring status?

3720 Model 1 or 11

Power Check lamp is on

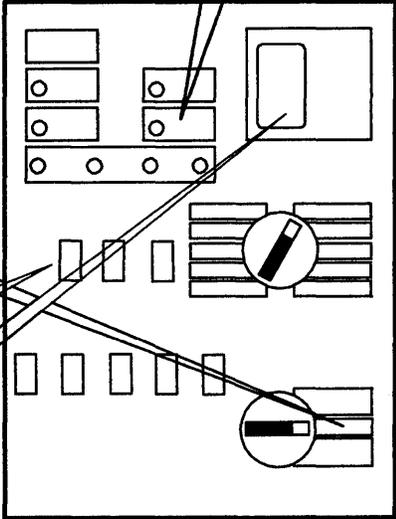1. Take note of the hexadecimal code. Go to step 2.

   | 3 | 0 | 0 | means that a retry is in progress:
   - Wait one minute.
   - If the problem persists, note the hexadecimal code. Go to step 2.

2. Set the Power Control switch to Local.
   Press General Reset
   Wait 10 seconds
   Press Power On switch to power Off, then On
   If the problem persists, go to step 3.
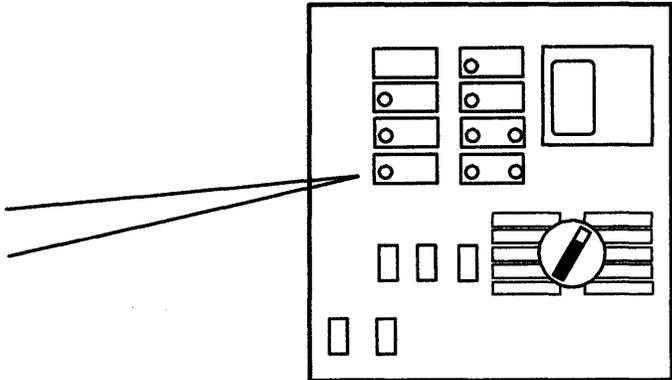
3. ☎H *(Go to page viii)* and provide that hexadecimal code

3720 Model 2 or 12

☎H *(Go to page viii)*

and give the name of the
Power Check lamps that are on:

Note the hexadecimal code displayed on the control panel.
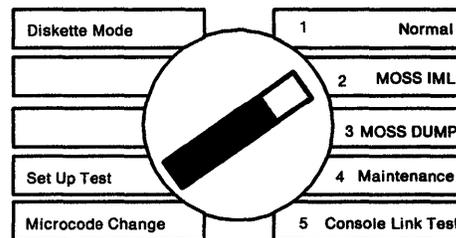Perform action required for that code (page 7-1) unless the code is:

```
┌───┬───┬───┐
│ 0 │ 0 │ 0 │
└───┴───┴───┘
```

or

```
┌─────────┐
│  blank  │
└─────────┘
```

In this case, IML MOSS as follows:

Function Select

- Set the Function Select switch to MOSS IML.

- Activate the Function Start switch.

- When MOSS is IMLed, the Hex Display
  shows FEF, FE7, 000 or is blank.
  Set the Function Select switch back
  to Normal.

Diskette Mode		1	Normal
		2	MOSS IML
		3	MOSS DUMP
Set Up Test		4	Maintenance
Microcode Change		5	Console Link Test

- If FE7, set MOSS online from
  the operator console: [PF2] [M] [0] [N] [SEND   ]

- Transfer MOSS dump to the host so that it can be printed for later use
  by the 3720 service representative.

If the problem persists:

● Do not transfer the last MOSS dump.

● Note the hexadecimal code.

● [H] *(Go to page viii)* and provide that hexadecimal code.

When you encounter a disk problem, follow the procedure below.

1   Restore the disk from the backup diskette. The
Restore function is described under Disk Functions in
3720/3721 Extended Services.

Re-IPL the NCP from host and save it on disk

2   If the problem persists or the disk restore fails:

⌂H⌂ *(Go to page viii)*   and

Switch to diskette mode so that you can initialize
the 3720. Switching to diskette mode is described in
3720/3721 Operator's Guide.

Check if the message at the host console is:

An NPDA, NetView, or VTAM Alert message.	Go to Chapter 6.

A message related to a channel such as: **CHANNEL DETECTED ERROR ON ...** or **ROUTE INOPERATIVE**	Identify, in the message, the control unit address. ● If the control unit is a 3720: 🕿H *(Go to page viii)* ● If the control unit is not a 3720, refer to the control unit documentation.
There is no message related to a channel, but you suspect the 3720.	Perform a "route test" if available in the operating system. If not available: 🕿H *(Go to page viii)*

A message related to scanner(s).	🕿H *(Go to page viii)*

A message related to line(s) or Token-Ring(s)
  ● If message on several lines of same scanner
  ● If message on one line
  ● If message on one Token-Ring
	🕿H *(Go to page viii)*
	
	Go to page 4-1.
	Go to page 4-15

Information on the Control Program, EC level, MCF

If you need information on the control program, on the microcode EC level, on the last applied MCF, perform the procedure below.

---

1 Power on and log on the operator console. Logon procedures are documented in *3720/3721 Communication Controller Operator's Guide*.

[PF1] To position the cursor.

---

2 [M] [L] [T] [SEND] To select the Machine Level Table function.

```
CUSTOMER ID:                        3720-1          SERIAL NUMBER:
FUNCTION ON SCREEN: MACHINE LVL TABLE

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE    OFF: LOGOFF    PF1: MOVE TO SIA    PF2: CCU FNCTN   PF3: ALARM


CONTROL PROGRAM: EP                              VMSPAR14 VERSION4


EC LEVEL : 021180E


LAST APPLIED MCF : M180A011            ON 06/28/86
```

The above screen displays:

- The version of the control program that is loaded in the CCU.
- The control program load name.
- The control program load identification when the control program is loaded. If no control program is loaded, message NO CONTROL PROGRAM LOADED is displayed.
- The microcode EC level.
- The last applied MCF and the date it was applied.

If you need information on the disk control program load modules or dump, perform the procedure below.

---

1 Power on and log on the operator console. Logon procedures are documented in *3720/3721 Communication Controller Operator's Guide*.

[PF1] To position the cursor.

---

2 [D] [I] [I] [SEND] To select the Disk IPL information function.

```
CUSTOMER ID:                          3720-1          SERIAL NUMBER:
FUNCTION ON SCREEN: MACHINE LVL TABLE

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE    OFF: LOGOFF    PF1: MOVE TO SIA    PF2: CCU FNCTN   PF3: ALARM



CP RUNNING:                    NNNNNNN
DISK CONTENTS:
    LOAD MODULES:              NNNNNNN (MM/DD/YY HH:MM:SS)
                               NNNNNNN (SEND IN PROGRESS)
    DUMP                       NNNNNNN (MM/DD/YY HH:MM:SS)


AUTO DUMP/LOAD:                YES
ACTIVE LOAD MODULE:            NNNNNNN


    PF4: CHANGE AUTO DUMP/LOAD OPTION                      PF5: PURGE DUMP
```

Use the Disk IPL Information function to:

● Display the status of control program load modules and dump, as well as the automatic dump/load option setting on the MOSS disk

● Change the automatic dump/load option setting

● Purge the control program dump file.

Note: The Automatic dump/load feature is also refered to as Automatic IPL/Dump. Refer to *3720/3721 Communication Controller Extended Services* for more information.
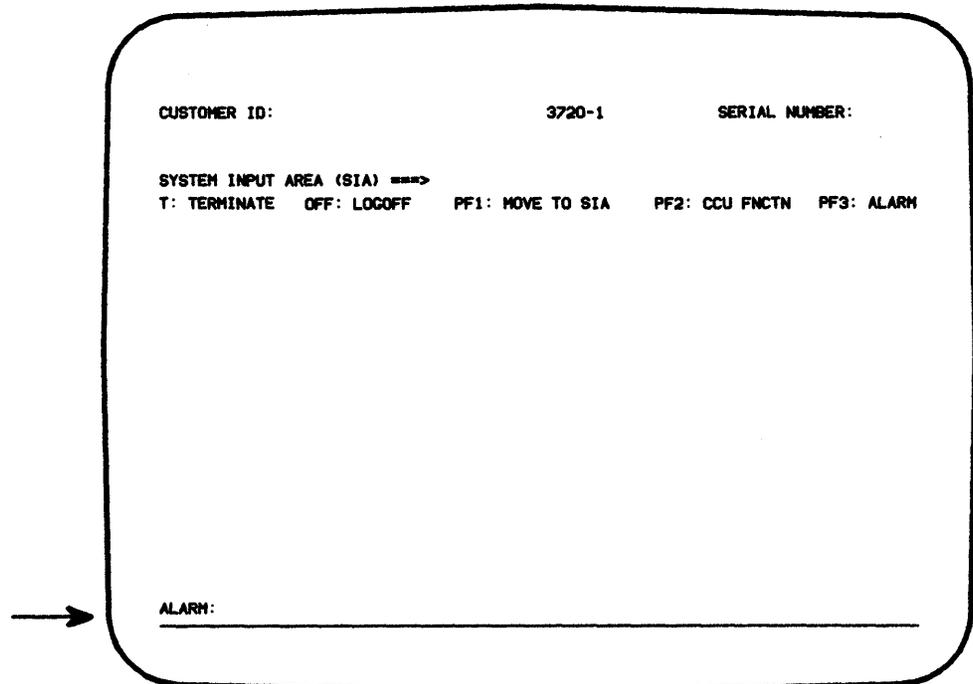
Alarms

Alarms provide an automatic first level of problem determination. Most alarms are given a **reference code**, which appears at the rightmost position of the alarm. This reference code is meant to help service personnel identify your problem. Take note of this reference code before contacting service personnel.

For most alarms, related messages are sent to the NetView/NPDA console or to the host console.

How to Display an Alarm

Once generated, the alarm is automatically displayed and an audible signal is heard if the console is logged on.

```
CUSTOMER ID:                    3720-1          SERIAL NUMBER:


SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE   OFF: LOGOFF    PF1: MOVE TO SIA    PF2: CCU FNCTN    PF3: ALARM











ALARM:
_____
```

When an alarm is already displayed, you are informed that another one is waiting for display by the blinking of the term ALARM. Press PF3 to display it. Up to four alarms may be waiting for display. If a fifth one is generated, it is stacked but the oldest of the four waiting alarms is erased.

Pressing PF3 when no alarms are waiting clears the Alarm area from the screen.

Warning: Before pressing PF3 to display the next alarm or to clear the displayed alarm, note the reference code. If you forget to do so, select the Event Log function to display all the alarms. The Event Log function is described in *3720/3721 Extended Services*.

If the alarm is: **Go to page:**

NetView or NPDA V3R2 (VSE) with 3720 PTF Messages

NPDA V3 Messages

Look at the NPDA V3 action code:

```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCF01 OPER1        05/15/86 15:46:44
NPDA-43M                        * EVENT DETAIL *                    PAGE 1 OF 1

NCF01          P2AL4Y2

DOMAIN         [ COMC ]

DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE. KEYBOARD/DISPLAY)




EVENT TYPE - 01 GENERAL -    01    SPECIFIC - 49 [ ACTION - ... ] BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```
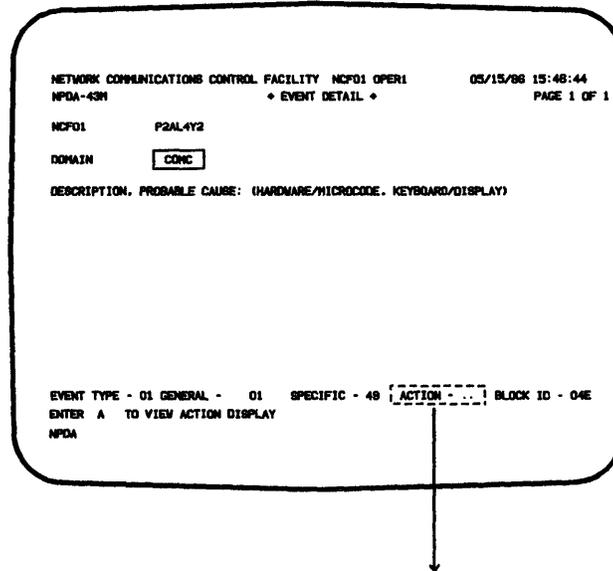
If Action:		Go to page:
01	....	6-8 *(no alarm)*
02	....	6-9 *(alarm 2)*
03	....	6-10 *(alarm 3)*
04	....	6-11 *(alarm 4)*
05	....	6-12 *(no alarm)*
06	....	6-13 *(alarm 6)*
07	....	6-14 *(alarm 7)*
08	....	6-15 *(alarm 8)*
09	....	6-16 *(alarm 9)*
0F	....	6-18 *(alarm 15)*
10	....	6-19 *(alarm 16)*
11	....	6-20 *(alarm 17)*
12	....	6-21 *(alarm 18)*
13	....	6-22 *(alarm 19)*
14	....	6-23 *(alarm 20)*
15 ·	....	6-24 *(alarm 21)*
16	....	6-25 *(alarm 22)*
17	....	6-26 *(alarm 23)*
18	....	6-27 *(alarm 24)*
19	....	6-28 *(alarm 25)*
1A	....	6-29 *(alarm 26)*
1E	....	6-32 *(alarm 30)*
1F	....	6-33 *(alarm 31)*
20	....	6-33 *(alarm 31)*

VTAM Alerts

The following VTAM messages are displayed on the host console for most 3720 alarms:

...55I ALERT FROM PU name FOLLOWS

...72I | UAC=xx | Q1= Q2= Q3=

If UAC =   **Go to page:**

If UAC =	Go to page:
01	6-8 *(no alarm)*
02	6-9 *(alarm 2)*
03	6-10 *(alarm 3)*
04	6-11 *(alarm 4)*
05	6-12 *(no alarm)*
06	6-13 *(alarm 6)*
07	6-14 *(alarm 7)*
08	6-15 *(alarm 8)*
09	6-16 *(alarm 9)*
15	6-18 *(alarm 15)*
16	6-19 *(alarm 16)*
17	6-20 *(alarm 17)*
18	6-21 *(alarm 18)*
19	6-22 *(alarm 19)*
20	6-23 *(alarm 20)*
21	6-24 *(alarm 21)*
22	6-25 *(alarm 22)*
23	6-26 *(alarm 23)*
24	6-27 *(alarm 24)*
25	6-28 *(alarm 25)*
26	6-29 *(alarm 26)*
30	6-32 *(alarm 30)*
31	6-33 *(alarm 31)*
32	6-33 *(alarm 31)*

ALARM: A0 MOSS IML EXCEPTION xxx yyy zzz	hhmmss reference code

Cause: MOSS errors given in Alarm 0 do not prevent the IML completion. Consequently, different codes can be displayed in the Hex Display and in Alarm 0.

- xxx can have the following values:

    FE4 The configuration data file is not initialized on the disk.

    FE5 The configuration data file is not accessible on the disk.

    FE6 Unidentified IPL or MOSS IML request.

    FE7 MOSS-to-control program communication time-out.

- yyy can have the following values:

    FE8: Alternative current (ac) provided by the user was temporarily interrupted.

    FEB: The position of the Function Select switch is incorrect.

    FED: MOSS IML complete with non-fatal errors.

- zzz can have the value FEC: Serial number not initialized.

Action: **Contact the hardware service representative (page viii) and provide the reference code, except for:**

yyy = **FE8**:   Check your alternative current.

yyy = **FEB**:   Correct the Function Select switch position.

   If the switch is on the correct position:
   Contact the hardware service representative (page viii) and provide the reference code.

yyy = **FED**:   No immediate action required. Note the hexadecimal code for later use by service personnel.

ALARM Al does not exist. However the following messages are displayed on the NetView and host consoles:

> NetView: HARDWARE DOWN:MOSS
> NPDA V3: (HARDWARE/MICROCODE; SERVICE PROCESSOR)
> VTAM: ...72I UAC = 01 Q1 =

Cause:
- MOSS error.
- MOSS-to-CCU communication error.
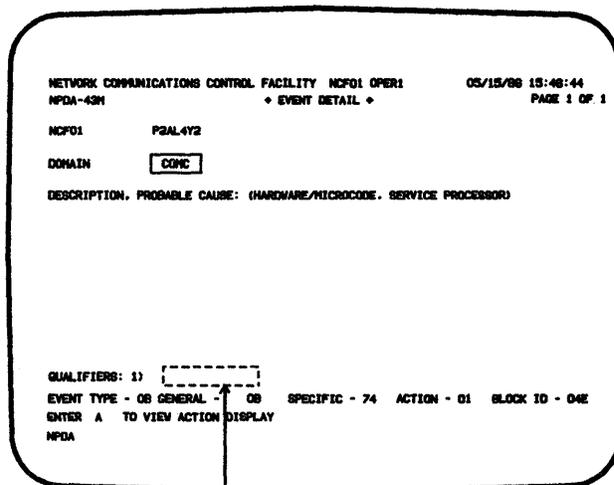- MOSS-to-control program communication error.

Action: **Do not attempt to initialize the 3720.**

- Note the NCP/MOSS interface status (Q1 for VTAM or QUALIFIER 1 for NPDA), the hex code on the suspected 3720, and the state of the MOSS Inoperative lamp.
- Perform a MOSS IML from the control panel unless MOSS has been automatically reIMLed. (Hex Display shows FEF, FE7, 000 or blank).
- When MOSS is IMLed, set the Function Select switch back to Normal. Do not press the Function Start switch.
- If FE7, set MOSS online from the operator console:

> [PF1] [M] [O] [N] [SEND]

- Transfer MOSS dump to the host so that it can be printed for later use. Refer to *Advanced Communication Function for Network Control Program and System Support Diagnosis Guide.*
- If the problem persists:
  - Do not transfer the last MOSS dump.
  - Note the NCP/MOSS interface status (Q1 for VTAM or QUALIFIER 1 for NPDA) and the hexadecimal code, if any.
  - Note the status of the MOSS Inoperative lamp.
  - **Contact the hardware service representative (page viii) and provide the hexadecimal code displayed on the control panel.**

NPDA V3 Detail Screen:

```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCF01 OPER1          05/15/88 15:48:44
NPDA-43M                            * EVENT DETAIL *                  PAGE 1 OF 1

NCF01          P2AL4Y2

DOMAIN          [ CONC ]

DESCRIPTION, PROBABLE CAUSE: (HARDWARE/MICROCODE, SERVICE PROCESSOR)




QUALIFIERS: 1)  [_____]
EVENT TYPE - 08 GENERAL - 08   SPECIFIC - 74  ACTION - 01  BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```

OA=NCP DETECTED TIME-OUT
OB=NCP DETECTED INTERFACE ERROR
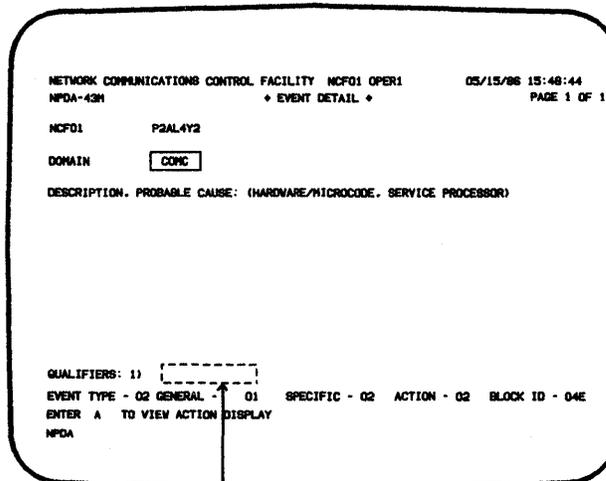OC=MOSS DETECTED ERROR

Related messages:

NetView: RECOVERABLE ERROR:MOSS
NPDA V3: (HARDWARE/MICROCODE; SERVICE PROCESSOR)
VTAM: ...72I UAC = 02 Q1 =

Cause: MOSS recoverable condition on hardware error. A MOSS dump is available on disk.

Action:
- Transfer MOSS dump to the host so that it can be printed for later use by service representative. The dump transfer and print are documented in *Advanced Communication Function for Network Control Program and System Support Diagnosis Guide*.
- MOSS has been automatically re-IMLed. If the problem persists:
  - Do not transfer the last MOSS dump.
  - **Contact the hardware service representative (page viii) and provide the reference code.**

NPDA V3 Detail Screen:

```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCF01 OPER1        05/15/86 15:48:44
NPDA-43M                              ◆ EVENT DETAIL ◆                  PAGE 1 OF 1

NCF01          P2AL4Y2

DOMAIN          [ COMC ]

DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE. SERVICE PROCESSOR)




QUALIFIERS: 1)   [---------]
                 [------/--]
EVENT TYPE - 02 GENERAL -   01    SPECIFIC - 02   ACTION - 02   BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```

REFERENCE CODE

Related messages:

NetView: DISKETTE DOWN:MOSS
NPDA V3: (HARDWARE/MICROCODE; SERVICE PROCESSOR)
VTAM: ...72I UAC = 03

Cause: Diskette drive error or diskette adapter error.

Action:
- **If possible, use another diskette.**
- **In diskette mode, do not power off, and do not initialize the 3720.**
- **Contact the hardware service representative (page viii) and provide the hexadecimal code displayed on the control panel.**

NPDA V3 Detail Screen:

Related messages:

NetView: DISKETTE ERROR:DISKETTE
NPDA V3: (HARDWARE/MICROCODE; DISKETTE)
VTAM: ...72I UAC = 04

Cause: MOSS diskette error (one or several files are no longer available from the diskette).

Action: ● **If possible, use another diskette.**
● **In diskette mode, do not power off, and do not initialize the 3720.**
● **Contact the hardware service representative (page viii) and provide the hexadecimal code displayed on the control panel.**

NPDA V3 Detail Screen:

```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCF01 OPER1          05/15/88 15:48:44
NPDA-43M                        ◆ EVENT DETAIL ◆                     PAGE 1 OF 1

NCF01           P3AL4Y2

DOMAIN          [ COMC ]

DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE. DISKETTE)




EVENT TYPE - 01 GENERAL -   01   SPECIFIC - 50   ACTION - 04   BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```
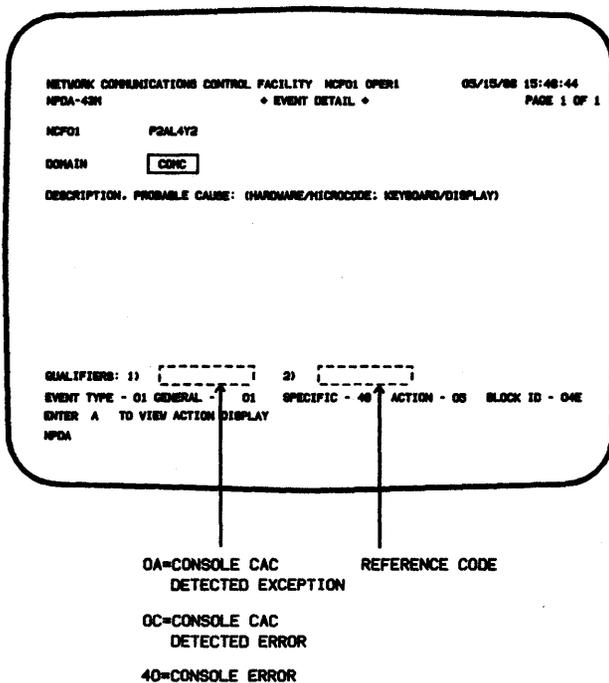
ALARM A5 does not exist. However the following messages are displayed on the NetView and host consoles:

NetView: MOSS LOCAL CONSOLE ERROR:CONSOLE/ADAPTER/CABLE
NPDA V3: (HARDWARE/MICROCODE; KEYBOARD/DISPLAY)
VTAM: ...72I UAC = 05 Q1 = Q2 =

Cause:
- Local console.
- Local console cable.
- Local console adapter.

Action: Follow problem determination procedure *"Local Operator Console"* (page 2-1).

NPDA V3 Detail Screen:


```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCPO1 OPER1        05/15/88 15:48:44
NPDA-43M                          * EVENT DETAIL *                    PAGE 1 OF 1

NCPO1          P3AL4Y2

DOMAIN         [ CONC ]

DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE: KEYBOARD/DISPLAY)




QUALIFIERS: 1) [--------]      2) [--------]
EVENT TYPE - 01 GENERAL - 01   SPECIFIC - 40  ACTION - 05   BLOCK ID - 04E
ENTER A   TO VIEW ACTION DISPLAY
NPDA
```

OA=CONSOLE CAC   REFERENCE CODE
  DETECTED EXCEPTION

OC=CONSOLE CAC
  DETECTED ERROR

40=CONSOLE ERROR

Related messages:

NetView: MOSS OFFLINE:MAINTENANCE MODE
NPDA V3: (HARDWARE/MICROCODE; OFF LINE)
VTAM: ...72I UAC = 06

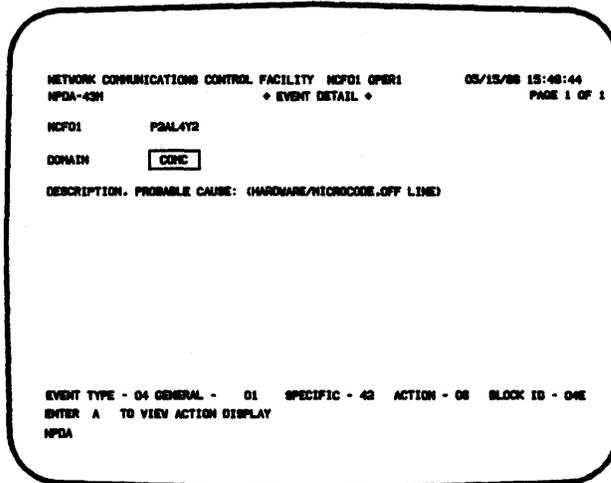**Cause:**   MOSS is set offline.

Action: •   If in maintenance mode, no action required.
           •   If no longer in maintenance mode, set MOSS online:

      [PF1]   [M]   [O]   [N]   [| SEND]

If MOSS is still not online (see MSA): re-IML MOSS. If the problem persists: **Contact the hardware service representatives (page viii).**

NPDA V3 Detail Screen:

```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCFO1 OPER1        05/15/88 15:48:44
NPDA-43M                          * EVENT DETAIL *                  PAGE 1 OF 1

NCFO1          P2AL4Y2

DOMAIN         [ CDMC ]

DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE.OFF LINE)




EVENT TYPE - 04 GENERAL -   01   SPECIFIC - 42  ACTION - 08  BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```

Related messages:

NetView: HARDWARE ERROR:COMMUNICATION CONTROLLER RE-IPLED
NPDA V3: (HARDWARE/MICROCODE; BASE PROCESSOR)
VTAM: ...72I UAC = 07 Q1 = Q2 =

Cause:
- 3720 hardware error.
- Control program error.

Action: The 3720 is being initialized.

- If the MSA displays LOAD IN PROGRESS FROM DISK, no action required. Wait until the IPL is completed.
- If hex code is FF4 and MSA displays LOAD IN PROGRESS ON CAxx or LOAD IN PROGRESS ON Lxxx, reload the control program from the host when FF4 is displayed on the control panel. Reactivate the affected line(s) from the host when IPL is completed.
- **Contact the hardware service representative (page viii) and provide the reference code, if any.**

NPDA V3 Detail Screen:

```
 NETWORK COMMUNICATIONS CONTROL FACILITY  NCF01 OPER1        05/15/86 15:48:44
 NPDA-43M                        * EVENT DETAIL *                    PAGE 1 OF 1

 NCF01         P2AL4Y2

 DOMAIN       [ CONC ]

 DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE;BASE PROCESSOR)




 QUALIFIERS: 1)  !----------!      2)  !----------!
 EVENT TYPE - 01 GENERAL -  01     SPECIFIC - 01  ACTION - 07  BLOCK ID - 04E
 ENTER  A    TO VIEW ACTION DISPLAY
 NPDA
```

ABEND CODE   REFERENCE CODE
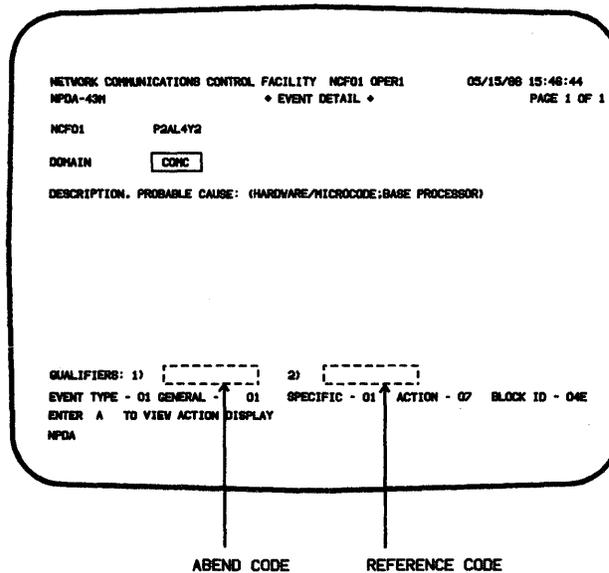
Related messages:

NetView: SOFTWARE ERROR:COMMUNICATION CONTROLLER
NPDA V3: (SOFTWARE; IBM COMMUN CTRL PRGM)
VTAM: ...72I UAC = 08 Q1 = Q2 =

Cause:
- Control program error.
- Communication controller error.

Action: The 3720 is being initialized.

- Check and correct control program generation parameters: NCPCA, CA, HICHAN, LOCHAN.
- If the MSA displays LOAD IN PROGRESS FROM DISK, no action required. Wait until the IPL is completed.
- If the hex code is FF4 and the MSA displays, LOAD IN PROGRESS ON CAxx or LOAD IN PROGRESS ON Lxxx:
    - Reload the control program from the host
    - Reactivate the affected line(s) from the host when the IPL is completed
    - If the problem persists:
        1. Dump the control program using NCP facilities or DYNADUMP facilities described in your control program documentation.
        2. Analyze the dump.
    - If you did not solve the problem:
      Contact the software service representative (page viii) and provide the reference code, if any.

NPDA V3 Detail Screen:

ABEND CODE   REFERENCE CODE
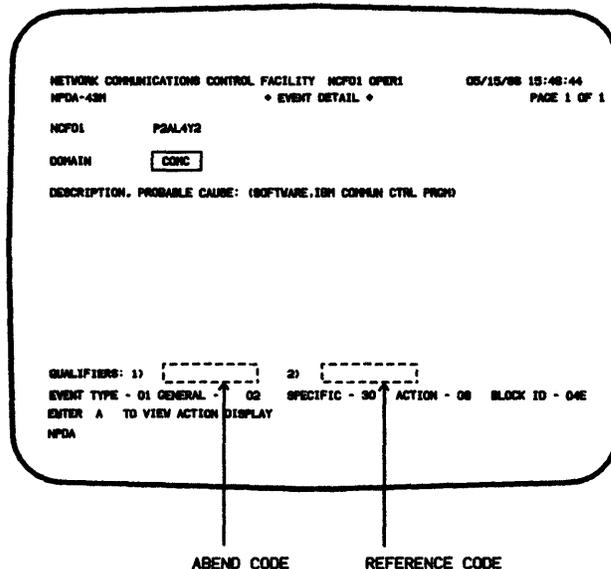
Related messages:

NetView: HARDWARE ERROR:CHANNEL ADAPTER
NPDA V3: (HARDWARE/MICROCODE; CHANNEL ADAPTER)
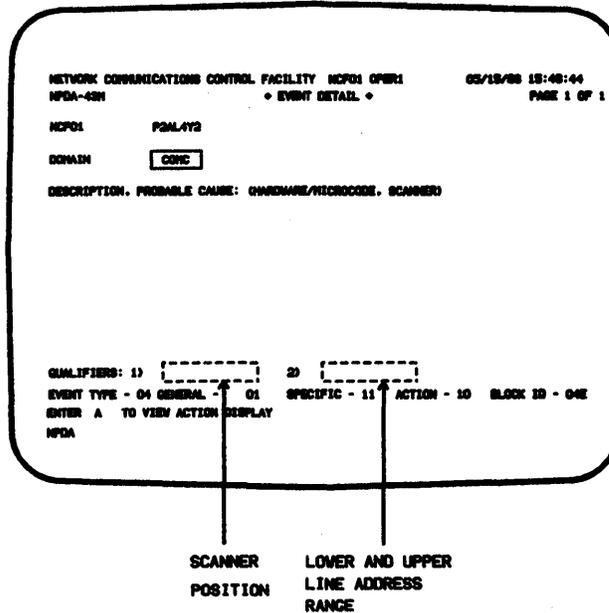VTAM: ...72I UAC = 09 Q1 = Q2 =

Cause: Channel adapter error.

Action:
- Check and correct the channel adapter parameters (NSC address, ESC addresses, select-out priority, burst length).
- If you did not solve the problem:
  Contact the hardware service representative (page viii) and provide the reference code.

NPDA V3 Detail Screen:

```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCFO1 OPER1        05/15/86 15:46:44
NPDA-43M                        * EVENT DETAIL *                     PAGE 1 OF 1

NCFO1          P2AL4Y2

DOMAIN         [ CONC ]

DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE.CHANNEL ADAPTER)




QUALIFIERS: 1)  [ _ _ _ _ _ _ _ ]    2)  [ _ _ _ _ _ _ _ _ ]
EVENT TYPE - 01 GENERAL - 02    SPECIFIC - 14   ACTION - 09    BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```

CHANNEL ADAPTER   REFERENCE CODE
POSITION
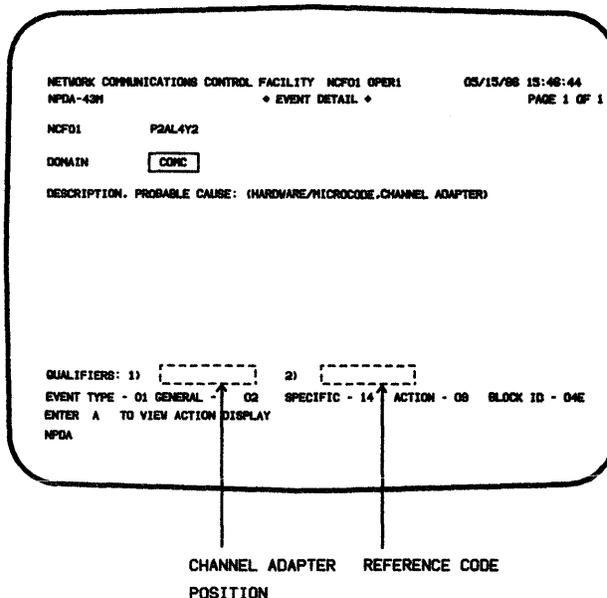
Cause: The 3720 initialization is canceled because of a hardware error.

Note: Details on this error are given in MSA field w. Refer to *3720/3721 Communication Controller Extended Services* manual.

Action: • Retry. (You may retry from the 3720 operator console.)
            • If the problem persists:
                – Perform the action required for the hexadecimal code displayed on the control panel (page 7-1).
                – If you did not solve the problem:
                   Contact the hardware service representative (page viii) and provide the reference code.

Related messages:

NetView: HARDWARE ERROR:LINE ADAPTER
NPDA V3: (HARDWARE/MICROCODE; LINE ADAPTER)
VTAM: ...72I UAC = 15 Q1 = Q2 = Q3 =

Cause:
- Modem or line error.
- Line adapter error.
- Scanner error.

Action:
- Reactivate affected line from the host and retry.
- If the problem persists and the first characters of the reference code:
  - Are B1B1, B1A2, or BY2: Refer to the "Line Problems" procedure, page 4-1.
  - Are NOT B1B1, B1A2 or BY2: **Contact the hardware service representative (page viii) and provide the reference code.**

The BY2 reference code contains the following information:

BY2xxyzz where:

xx	=	line threshold
y	=	1 to 4: LIC type 1 to 4A
		5: LIC type 4B
zz	=	line address 00 to 63

NPDA V3 Detail Screen:


```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCF01 OPER1        05/15/88 15:48:44
NPDA-43M                          * EVENT DETAIL *                   PAGE 1 OF 1

NCF01          P2AL4Y2

DOMAIN       [ CONC ]

DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE:LINE ADAPTER)




QUALIFIERS: 1)  [- - - - - - - -]   2)  [- - - - - - - -]   3)  [- - - - - - - -]
EVENT TYPE - 01 GENERAL - 01    SPECIFIC - 12  ACTION - OF    BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```

SCANNER   LINE   REFERENCE
POSITION   ADDRESS   CODE
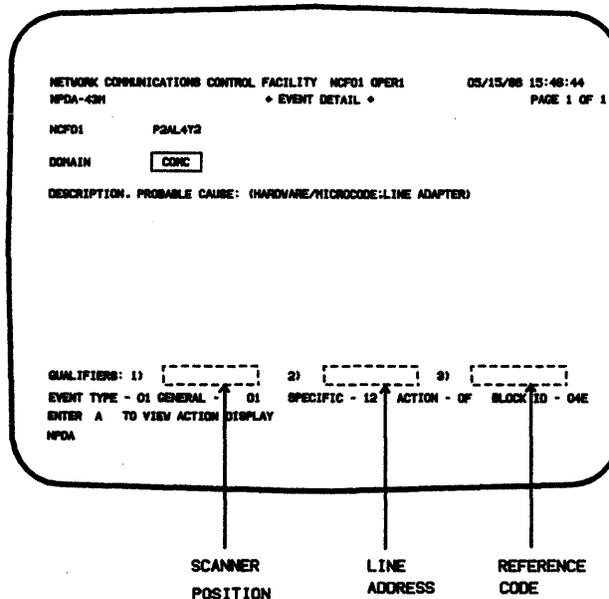
Related messages:

NetView: HARDWARE ERROR:SCANNER RE-IML IN PROGRESS
NPDA V3: (HARDWARE/MICROCODE; SCANNER)
VTAM: ...72I UAC = 16 Q1= Q2=

Cause: Scanner error.

Action: No action required. Wait until the completion of the automatic scanner re-IML.

NPDA V3 Detail Screen:

SCANNER   LOWER AND UPPER
POSITION   LINE ADDRESS
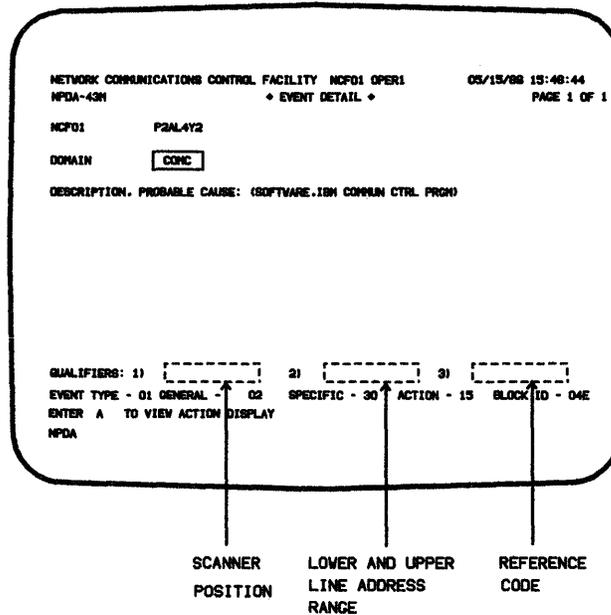   RANGE

Related messages:

NetView: SOFTWARE ERROR:SCANNER RE-IML IN PROGRESS
NPDA V3: (SOFTWARE; IBM COMMUN CTRL PRGM)
VTAM: ...72I UAC = 17 Q1 = Q2 =

Cause: Control program error.

Action: No action required. Wait until the completion of the automatic scanner re-IML.

NPDA V3 Detail Screen:


```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCFO1  OPER1        05/15/86 15:46:44
NPDA-43M                          * EVENT DETAIL *                    PAGE 1 OF 1

NCFO1          P2AL4Y2

DOMAIN         [ CONC ]

DESCRIPTION. PROBABLE CAUSE: (SOFTWARE.IBM COMMUN CTRL PRGM)




QUALIFIERS: 1) [---------]      2) [---------]
EVENT TYPE - 04 GENERAL - 02    SPECIFIC - 30  ACTION - 11   BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```

SCANNER POSITION

LOWER AND UPPER LINE ADDRESS RANGE
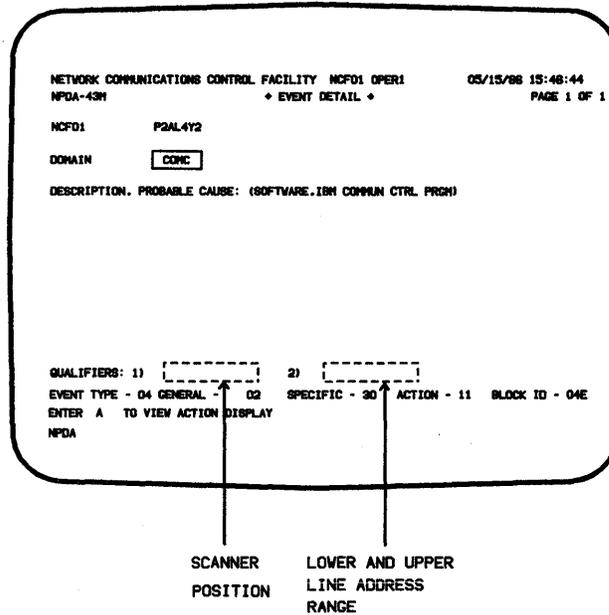
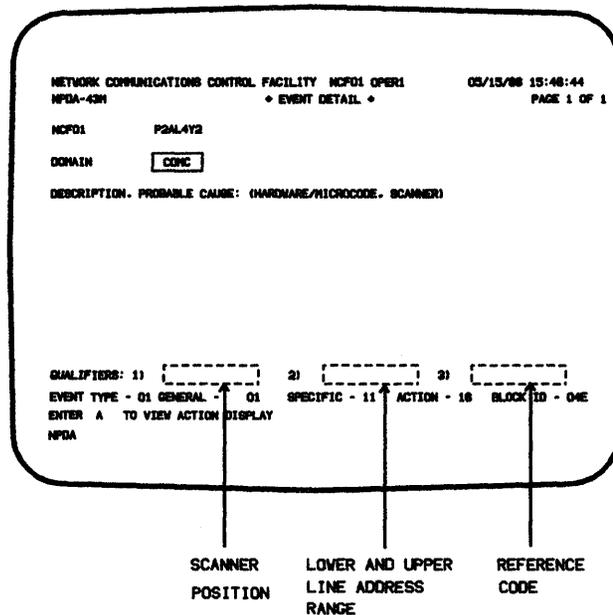| ALARM: A18 SCANNER xx ERROR (LINES xxx-yyy) - RE-IML SUCCESSFUL   hhmmss reference code |
| --- |

Related messages:

NetView: HARDWARE ERROR:SCANNER RE-IML SUCCESSFUL
NPDA V3: (HARDWARE/MICROCODE; SCANNER)
VTAM: ...72I UAC = 18 Q1 = Q2 = Q3 =

Cause: Scanner error.

Action:
- Reactivate affected line(s) from the host and retry.
- If the problem persists:
  Contact the hardware service representative (page viii) and provide the reference code.

NPDA V3 Detail Screen:

```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCFO1 OPER1        05/15/88 15:48:44
NPDA-43M                         * EVENT DETAIL *                    PAGE 1 OF 1

NCFO1          P2AL4Y2

DOMAIN        [ CONC ]

DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE, SCANNER)




QUALIFIERS: 1)  [_____]    2)  [_____]    3)  [_____]
EVENT TYPE - 02 GENERAL - 01    SPECIFIC - 11   ACTION - 12   BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```

SCANNER   LOWER AND UPPER   REFERENCE
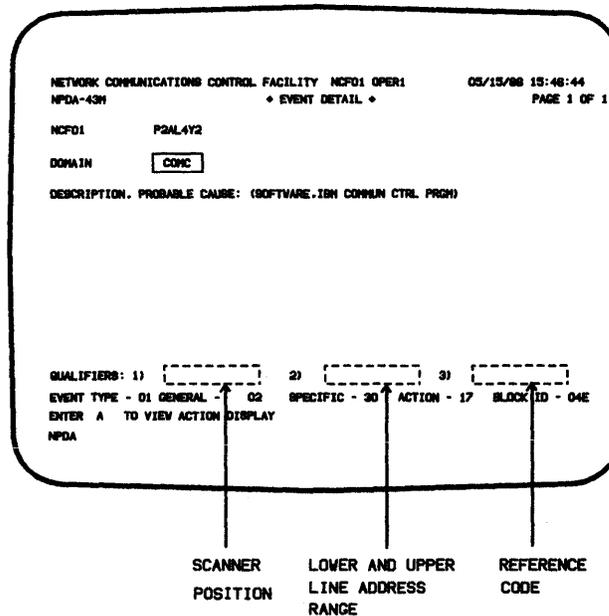POSITION   LINE ADDRESS   CODE
                RANGE

Related messages:

NetView: SOFTWARE ERROR:SCANNER RE-IML SUCCESSFUL
NPDA V3: (SOFTWARE; IBM COMMUN CTRL PRGM)
VTAM: ...72I UAC = 19 Q1 = Q2 = Q3 =

Cause: Scanner error. Control program error.

Action: ● Reactivate affected line(s) from the host and retry.
● Transfer scanner dump file to the host so it can be printed for later use by service
  representative. The dump transfer and print are documented in *Advanced Communication
  Function for Network Control Program and System Support Diagnosis Guide*.
● If the problem persists:
  – Dump the control program using NCP facilities or DYNADUMP facilities described in
    your control program documentation.
  – Analyze the dump.
  – If you did not solve the problem:
    – Do not transfer the last scanner dump.
    – **Contact the software service representative (page viii) and provide the reference code.**

NPDA V3 Detail Screen:

```
  NETWORK COMMUNICATIONS CONTROL FACILITY  NCF01 OPER1          05/15/88 15:46:44
  NPDA-43M                          * EVENT DETAIL *                    PAGE 1 OF 1

  NCF01          P2AL4Y2

  DOMAIN         [COMC]

  DESCRIPTION. PROBABLE CAUSE: (SOFTWARE.IBM COMMUN CTRL PRGM)




  QUALIFIERS: 1) [----------]   2) [----------]  3) [----------]
  EVENT TYPE - 02 GENERAL -  02    SPECIFIC - 30  ACTION - 13   BLOCK ID - 04E
  ENTER  A   TO VIEW ACTION DISPLAY
  NPDA
```

SCANNER   LOWER AND UPPER   REFERENCE
POSITION   LINE ADDRESS   CODE
               RANGE
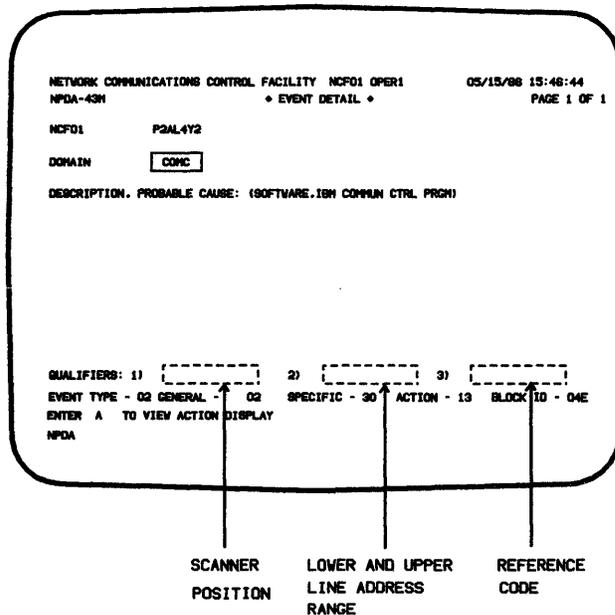
Related messages:

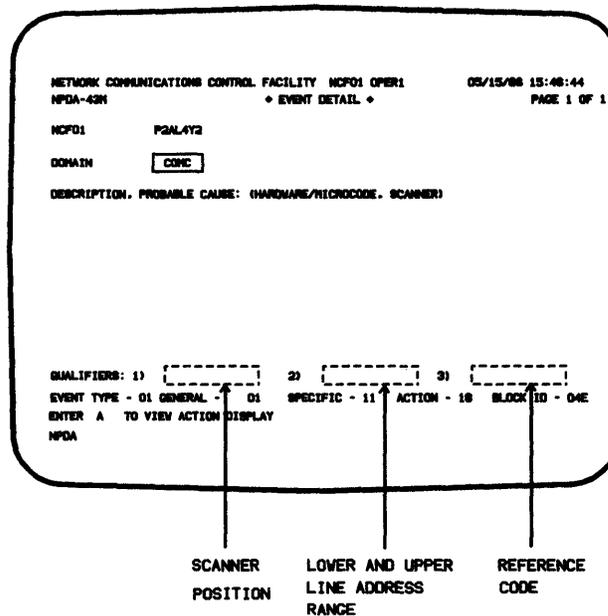NetView: HARDWARE ERROR:SCANNER
NPDA V3: (HARDWARE/MICROCODE; SCANNER)
VTAM: ...72I UAC = 20 Q1 = Q2 = Q3 =

Cause: Scanner error.

Action: **Contact the hardware service representative (page viii) and provide the reference code.**

NPDA V3 Detail Screen:


```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCFO1 OPER1        05/15/88 15:46:44
NPDA-43M                          * EVENT DETAIL *                  PAGE 1 OF 1

NCFO1         P2AL4Y2

DOMAIN        [ COMC ]

DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE, SCANNER)




QUALIFIERS: 1) [----------]    2) [----------]  3) [----------]
EVENT TYPE - 01 GENERAL -   01   SPECIFIC - 11   ACTION - 14   BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```

SCANNER   LOWER AND UPPER   REFERENCE
POSITION   LINE ADDRESS   CODE
          RANGE
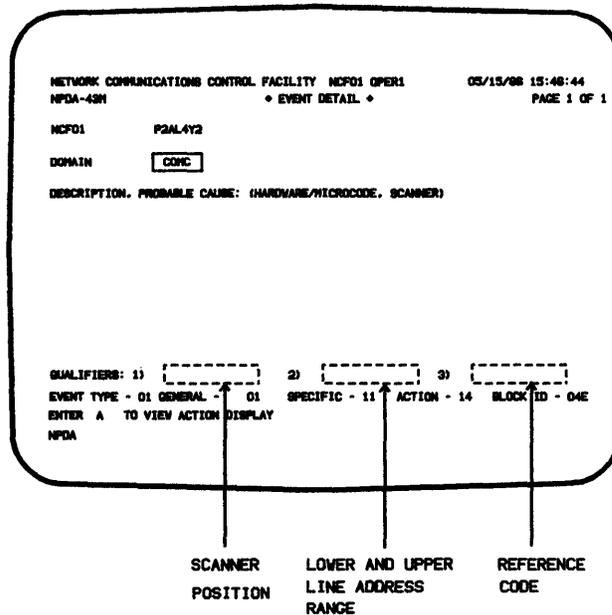
Related messages:

NetView: SOFTWARE ERROR:SCANNER
NPDA V3: (SOFTWARE; IBM COMMUN CTRL PRGM)
VTAM: ...72I UAC = 21 Q1= Q2= Q3=

Cause: ● Control program generation parameters.
● Scanner error.
● Control program error.

Action: Correct generation parameters. If the problem persists:

● Dump the control program using NCP facilities or DYNADUMP facilities described in your control program documentation.
● Analyze the dump.
● If the problem persists: **Contact the software service representative (page viii) and provide the reference code.**

NPDA V3 Detail Screen:

```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCF01 OPER1        05/15/88 15:48:44
NPDA-43M                        ◆ EVENT DETAIL ◆                    PAGE 1 OF 1

NCF01          P2AL4Y2

DOMAIN          [ CONC ]

DESCRIPTION. PROBABLE CAUSE: (SOFTWARE.IBM COMMUN CTRL PRGM)




QUALIFIERS: 1)  [--------]    2)  [--------]   3)  [--------]
EVENT TYPE - 01 GENERAL -  02    SPECIFIC - 30  ACTION - 15   BLOCK ID - 04E
ENTER A  TO VIEW ACTION DISPLAY
NPDA
```

SCANNER
POSITION

LOWER AND UPPER
LINE ADDRESS
RANGE

REFERENCE
CODE

Related messages:

NetView: HARDWARE ERROR:SCANNER RE-IML FAILED
NPDA V3: (HARDWARE/MICROCODE; SCANNER)
VTAM: ...72I UAC = 22 Q1= Q2= Q3=

Cause: Scanner error.

Action: Contact the hardware service representative (page viii) and provide the reference code.

NPDA V3 Detail Screen:


```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCF01 OPER1         05/15/86 15:48:44
NPDA-43M                      * EVENT DETAIL *                        PAGE 1 OF 1

NCF01          P2AL4Y2

DOMAIN         [ CONC ]

DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE. SCANNER)




QUALIFIERS: 1) [_____]    2) [_____]    3) [_____]
EVENT TYPE - 01 GENERAL -   01   SPECIFIC - 11  ACTION - 18  BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```

SCANNER   LOWER AND UPPER   REFERENCE
POSITION   LINE ADDRESS   CODE
                RANGE

Related messages:

NetView: SOFTWARE ERROR:SCANNER RE-IML FAILED
NPDA V3: (SOFTWARE; IBM COMMUN CTRL PRGM)
VTAM: ...72I UAC = 23 Q1= Q2= Q3=

Cause:
- Scanner error.
- Control program error.

Action:
- Dump the control program using NCP facilities or DYNADUMP facilities described in your control program documentation.
- Analyze the dump.
- If the problem persists: **Contact the software service representative (page viii) and provide the reference code.**

NPDA V3 Detail Screen:


```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCFO1 OPER1          05/15/88 15:48:44
NPDA-43M                        * EVENT DETAIL *                    PAGE 1 OF 1

NCFO1           P2AL4Y2

DOMAIN          [ COMC ]

DESCRIPTION. PROBABLE CAUSE: (SOFTWARE.IBM COMMUN CTRL PRGM)




QUALIFIERS: 1)  [----------]    2)  [----------]    3)  [----------]
EVENT TYPE - 01 GENERAL -     02    SPECIFIC - 30   ACTION - 17  BLOCK ID - 04E
ENTER  A    TO VIEW ACTION DISPLAY
NPDA
```

SCANNER   LOWER AND UPPER   REFERENCE
POSITION   LINE ADDRESS   CODE
               RANGE

Related messages:

NetView: HARDWARE ERROR:SCANNER RE-IML FAILED
NPDA V3: (HARDWARE/MICROCODE; SCANNER)
VTAM: ...72I UAC = 24 Q1 = Q2 = Q3

Cause: MOSS or scanner error.

Action: **Contact the hardware service representative (page viii) and provide the reference code.**

NPDA V3 Detail Screen:

NETWORK COMMUNICATIONS CONTROL FACILITY   NCF01 OPER1   05/15/86 15:46:44
NPDA-43M   ◆ EVENT DETAIL ◆   PAGE 1 OF 1

NCF01   P2AL4Y2

DOMAIN   [COMC]

DESCRIPTION, PROBABLE CAUSE: (HARDWARE/MICROCODE, SCANNER)

QUALIFIERS: 1) [_____]   2) [_____]   3) [_____]
EVENT TYPE - 01 GENERAL -   01   SPECIFIC - 11   ACTION - 18   BLOCK ID - 04E
ENTER A   TO VIEW ACTION DISPLAY
NPDA

SCANNER   LOWER AND UPPER   REFERENCE
POSITION   LINE ADDRESS   CODE
                 RANGE

Alarms 6-27

Related messages:

NetView: REMOTE CONSOLE ERROR:LINE/MODEMS/CONSOLE/MOSS
NPDA V3: (HARDWARE/MICROCODE; KEYBOARD/DISPLAY)
VTAM: ...72I UAC = 25 Q1 =

Cause:
- Remote console.
- Remote console modems.
- Modem cables.
- Remote console adapter.

Action: Follow the "Remote Operator Console" procedure, page 2-5.
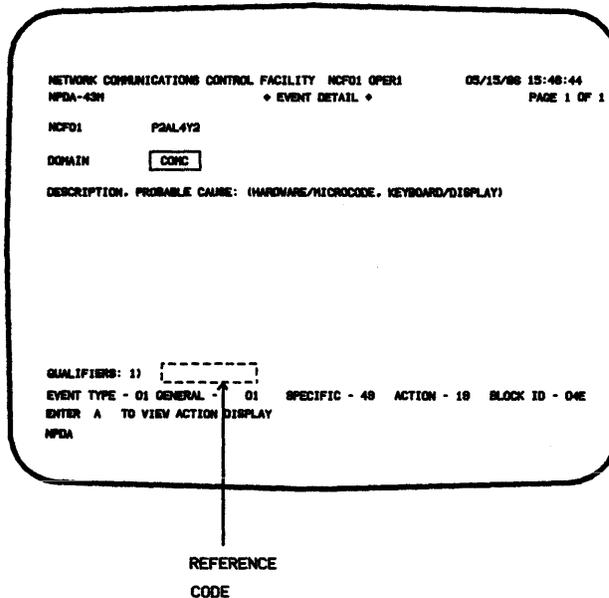
NPDA V3 Detail Screen:

REFERENCE
CODE

Related messages:

NetView: MOSS REMOTE CONSOLE ERROR:CONSOLE
NPDA V3: (HARDWARE/MICROCODE; KEYBOARD/DISPLAY)
VTAM: ...72I UAC = 26 Q1 =

Cause: MOSS remote console.

Action: Follow the "Remote Operator Console" procedure, page 2-5.

NPDA V3 Detail Screen:


```
NETWORK COMMUNICATIONS CONTROL FACILITY  NCF01 OPER1        05/15/88 15:48:44
NPDA-43M                            * EVENT DETAIL *                   PAGE 1 OF 1

NCF01        P2AL4Y2

DOMAIN       [ CONC ]

DESCRIPTION. PROBABLE CAUSE: (HARDWARE/MICROCODE. KEYBOARD/DISPLAY)




QUALIFIERS: 1)  [- - - - - - - - -]
EVENT TYPE - 01 GENERAL -     01     SPECIFIC - 48   ACTION - 1A   BLOCK ID - 04E
ENTER  A   TO VIEW ACTION DISPLAY
NPDA
```

REFERENCE
CODE
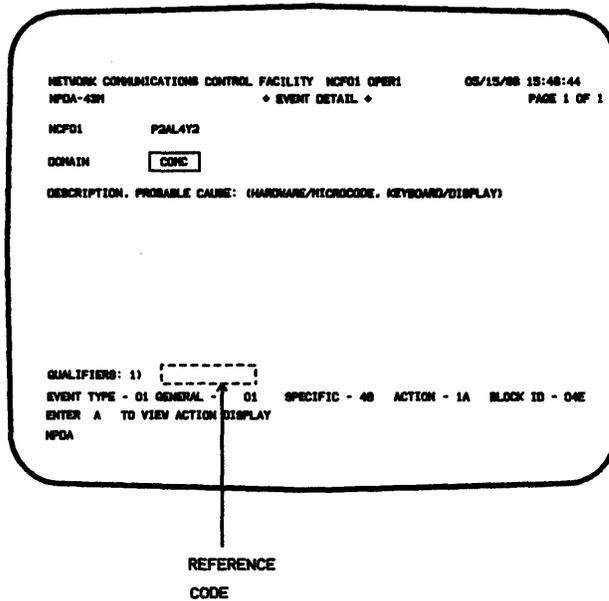
Related messages:

NPDA Messages: BACK-UP TIMEOUT: RING MULTIPLEXER
                 NCP LEVEL 1 ERROR: RING MULTIPLEXER
                 NCP LEVEL 2 ERROR: RING MULTIPLEXER

Cause: • Token-Ring Multiplexer (TRM) Error
             • Control Program Error.

Action: • Reactivate affected token-ring adapter(s) from the host.
             • If the error occurs repeatedly, **contact the appropriate service representative (page viii) and provide the reference code, if any.**

Related messages:

NPDA Messages: INITIALIZATION FAILURE: RING INTERCONNECTION COUPLER
INITIALIZATION FAILURE: RING SUBSYSTEM ATTACHMENT
BACK-UP TIMEOUT: RING INTERCONNECTION COUPLER
DEADMAN TIMEOUT: RING INTERCONNECTION COUPLER
NCP LEVEL 2 ERROR: RING INTERCONNECTION COUPLER

Cause:
- Token-Ring Interconnection Coupler (TIC) Error
- Token-Ring Multiplexer (TRM)
- Control Program Error.

Action:
- Transfer the TIC dump file to the host so it can be printed for later use by service representative. The dump transfer and print are documented in *Advanced Communication Function for Network Control Program and System Support Diagnostic Guide*. SC30-3181.
- Reactivate affected token-ring adapter from the host.
- If the error occurs repeatedly, **contact the appropriate service representative (page viii) and provide the reference code, if any.**

Related messages:

NetView: DISK DOWN:MOSS
NPDA V3: (HARDWARE/MICROCODE; DASD DRIVE/MEDIUM/DATA)
VTAM: ...72I UAC = 30 Q1 =

Cause:
- MOSS disk drive.
- MOSS disk adapter.

Action: You cannot initialize the 3720 from the disk and no dump (MOSS or control program) can be taken.

Contact the hardware service representative (page viii) and provide the reference code, if any.

While waiting for service:

- Do not IPL from the disk.
- Switch to diskette mode as follows.

1. Install the primary diskette on which you saved the disk.
2. Set the Function Select switch to Diskette Mode.
3. Activate the Function Start switch.

(For more information, refer to the *3720/3721 Communication Controller Operator's Guide:* "Switching to Diskette Mode.")

NPDA V3 Detail Screen:
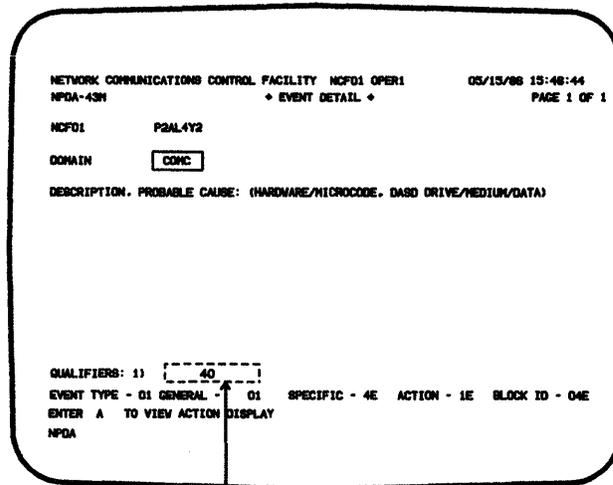
REFERENCE
CODE

ALARM: A31 3720 RE-IPL SUCCESSFUL - DUMP AVAILABLE ON DISK   **hhmmss reference code**

Related messages:

NetView: HARDWARE ERROR: COMMUNICATION CONTROLLER RE-IPLED
NetView: SOFTWARE ERROR: COMMUNICATION CONTROLLER RE-IPLED
NPDA V3: (HARDWARE: IBM COMMUN CTRL PRGM)
NPDA V3: (SOFTWARE: IBM COMMUN CTRL PRGM)
VTAM: ...72I UAC = 31 Q1= Q2=
VTAM: ...72I UAC = 32 Q1= Q2=

Cause:
- Control program error.
- Communication controller error.

Action:
- The 3720 has been re-initialized.
- An NCP dump has been saved on the 3720 disk, use the VTAM MODIFY command to.
  1. Transfer the dump, then
  2. Purge it from the 3720 disk, once the dump has been transferred.

  The current dump may not be transferred, but it has to be purged. Otherwise, the next dump will not be taken on the 3720 disk and will be lost.
- Reactivate the affected line(s) from the host.
- If the problem persists, **contact the software service representative (page viii) and provide the reference code.**

Cause:
- Control program error.
- Communication controller error.

Action:
- The 3720 initialization has failed.
- An NCP dump has been saved on the 3720 disk, use the VTAM MODIFY command to:
  1. Transfer the dump.
  2. Purge it from the 3720 disk, once the dump has been transferred.

  The current dump may not be transferred, but if it is not purged, the 3720 automatic IPL/DUMP is deactivated.
- Retry 3720 initialization.
- Reactivate the affected line(s) from the host.
- If the problem persists, do not purge the dump but transfer it and **contact your software service representative (page viii) and provide the reference code.**

ALARM: A35 3720 RE-IPL FAILED - DUMP NOT AVAILABLE ON DISK	hhmmss reference code

Cause:
- Control program error.
- Communication controller error.

Action: The 3720 initialization has failed. The control program has not been dumped on the 3720 disk because of a disk error (A30).

- Retry 3720 initialization.
- Reactivate affected lines from the host.
- If the problem persists, **contact the appropriate service representative (page viii) and provide the reference code, if any.**

Hexadecimal Codes Displayed on the Control Panel

Hexadecimal codes displayed on the control panel, indicate:

- 3720 initialization phases, when the Power Check lamp is off

- Checks, initialization (IPL/IML) errors

- Power errors, when the Power Check lamp is on (on 3720 Model 1 or 11 only)

Flashing hexadecimal codes after initialization indicate error or status condition.
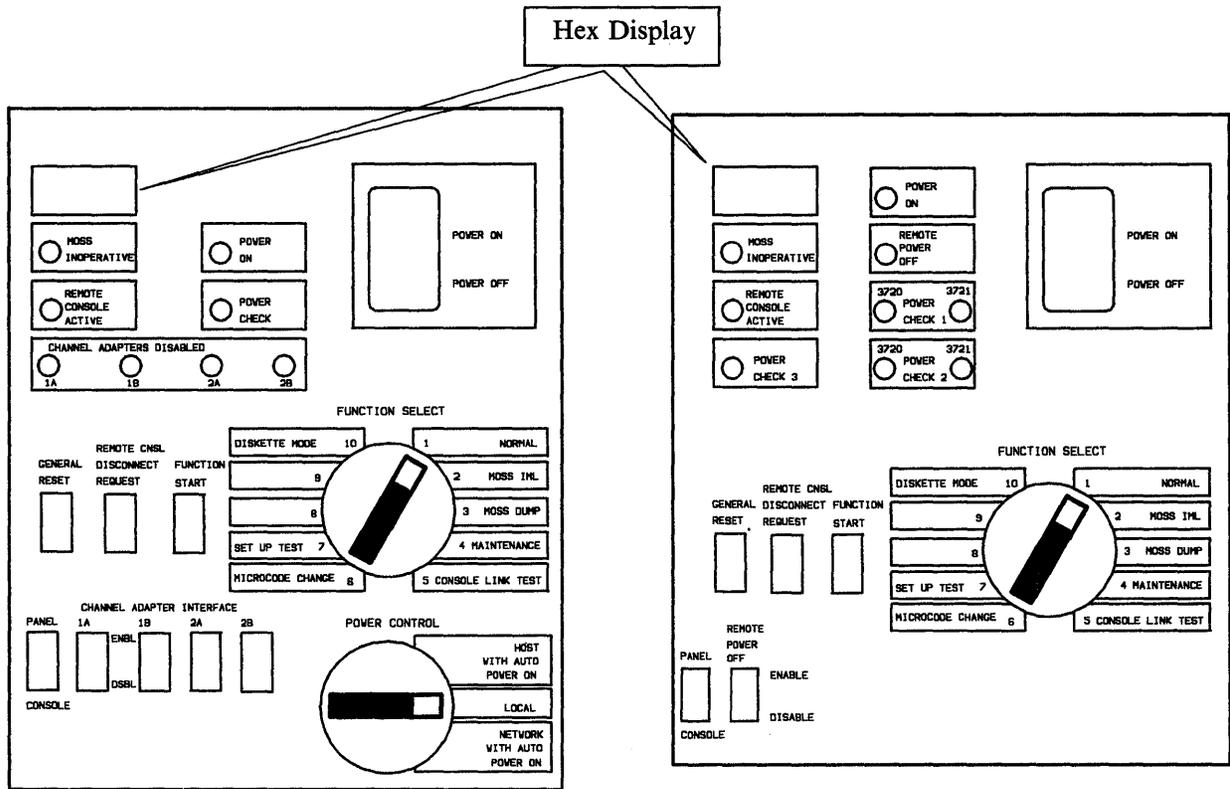
3720 Model 1 or 11 Control Panel   3720 Model 2 or 12 Control Panel

blank   Normal condition. The hexadecimal display is blank five minutes after a successful IPL or after you have set MOSS online.

                         If blank at power on: **Contact the hardware service representative (page viii).**

`0 0 0`   3720 initialization has been successfully completed. MOSS is online.

`0 0 1`
to   **Contact the hardware service representative (page viii).**
`0 A A`

`0 A B`   The Function Select switch is on an undefined position. Set the Function Select switch correctly.

`0 A C`
to   **Contact the hardware service representative (page viii).**
`1 2 F`

`1 3 0`   You powered off the 3720 Model 1 from the control panel, although the Power Control switch was positioned on Host with Auto Power On or on Network with Auto Power On.

`1 3 1`
to   **Contact the hardware service representative (page viii).**
`2 F F`

`3 0 0`   Autorestart in progress. If this code remains more than one minute: **Contact the hardware service representative (page viii).**

`3 0 1`   Start retry after a power fault. If this code remains more than one minute: **Contact the hardware service representative (page viii).**

`3 0 2`
to   **Contact the hardware service representative (page viii).**
`4 1 A`

4	1	B

- The diskette is not mounted or incorrectly mounted,

- The diskette latch is not set correctly, or

- There is a diskette adapter hardware error.

Mount the diskette correctly and perform a MOSS IML from the control panel:

- Set the Function Select switch to MOSS IML.

- Activate the Function Start switch.

If the MOSS IML is not successful: **Contact the hardware service representative (page viii).**

4	1	C

to

4	4	6

Contact the hardware service representative (page viii).

4	4	7

Plug correctly the wrap block at the end of the local console cable. Go to "Console Link Test" on page 9-8.

4	4	8

Plug correctly the wrap block at the end of the local modem cable of the remote console. Go to "Console Link Test" on page 9-8.

4	4	9

Plug correctly the wrap block at the end of the local modem cable of the RSF connection. Go to "Console Link Test" on page 9-8.

4	4	A

There is a problem at the local console attachment. Go to "Console Link Test" on page 9-5.

4	4	B

There is a problem at the local modem attachment for the remote console. Go to "Console Link Test" on page 9-6.

4	4	C

There is a problem at the local modem attachment for the RSF connection. Go to "Console Link Test" on page 9-7.

4	4	D

Contact the hardware service representative (page viii).

4	4	E

Console Link Test is successful. Go to "Console Link Test" on page 9-4.

4	4	F

to

D	F	F

Contact the hardware service representative (page viii).

E	0	0

to

E	1	0

Contact the hardware service representative (page viii).

E	1	1

Microcode change starts.

E	1	2

Primary diskette checking in progress.

E	1	3

Mount the secondary diskette.

E	1	4

Secondary diskette checking in progress.

E	1	5

Mount the primary diskette.

E	1	6

Microcode change from primary diskette in progress.

E	1	7

Mount secondary diskette.

E	1	8

Microcode change from secondary diskette in progress.

E	1	9

to

E	1	E

Contact the hardware service representative (page viii).

| E | 1 | F | Microcode change successfully completed.

| E | 2 | 0 | MCF apply error when running the Microcode Change function from the control panel. **Contact the hardware service representative (page viii).**

| E | 2 | 1 | The diskette is not a primary one. Mount a primary diskette.

| E | 2 | 2 | The diskette is not a secondary one. Mount a secondary diskette.

| E | 2 | 3 |

to

| E | 3 | F | **Contact the hardware service representative (page viii).**

| E | 4 | 0 | Primary and secondary diskettes are not at the same microcode level (EC level).

| E | 4 | 1 |

to

| E | A | 0 | **Contact the hardware service representative (page viii).**

| E | A | 1 | The microcode change failed because you activated the Function Start switch.

- Activate the General Reset switch. The procedure will start.

| E | A | 2 | Mounted diskette is not a primary one.

- Mount a primary diskette. The procedure continues.

| E | A | 3 | Mounted diskette is not a secondary one.

- Mount a secondary diskette. The procedure continues.

| E | A | 4 | Mounted primary diskette is not the one already checked.

- Mount correct diskette.

`| E | A | 5 |` Mounted secondary diskette is not the one already checked.

- Mount correct diskette.

`| E | A | 6 |` Diskettes do not belong to the same pair.

- Mount the correct secondary diskette.

`| E | A | 7 |` Disk error. Microcode change failed: **Contact the hardware service representative (page viii).**

`| E | A | 8 |` Primary diskette error. Microcode change failed.

- Retry from step 1 with the backup diskettes.

- If it fails: **Contact the hardware service representative (page viii).**

`| E | A | 9 |` Secondary diskette error. Microcode change failed.

- Retry from step 1 with the backup diskettes.

- If it fails: **Contact the hardware service representative (page viii).**

`| E | A | A |` File not found on disk: **Contact the hardware service representative (page viii).**

`| E | A | B |` File not found on disk: **Contact the hardware service representative (page viii).**

`| E | A | C |` File smaller on diskette: **Contact the hardware service representative (page viii).**

`| E | A | D |` Disk directory capacity is exceeded: **Contact the hardware service representative (page viii).**

`| E | A | E |` Diskette not ready. Close the diskette drive latch. The procedure continues.

`| E | A | F |` Diskette not ready. Microcode change failed. Restart from step 1.

| E | B | 0 | **Contact the hardware service representative (page viii).** |

| E | B | 1 | EC number is not valid. Microcode change failed.
Contact the hardware service representative (page viii). |

| E | B | 2 |
to
| E | B | E | **Contact the hardware service representative (page viii).** |

| E | B | F | Microcode error. **Contact the hardware service representative (page viii).** |

| E | C | 0 |
to
| E | C | 2 | **Contact the hardware service representative (page viii).** |

| E | C | 3 | Mounted diskette is not an expansion diskette. |

| E | C | 4 | MCF apply error at installation time. **Contact the hardware service representative (page viii).** |

| E | C | 5 |
to
| E | D | F | **Contact the hardware service representative (page viii).** |

| E | E | 0 | 3720/3721 set up instructions starting. See EE6. |

| E | E | 1 | The primary diskette is being copied onto the disk. |

| E | E | 2 | The primary diskette is copied. |

E	E	3	Mount a secondary diskette.

E	E	4	The secondary diskette is being copied onto the disk.

E	E	5	The CDF verify function is starting.

E	E	6	Diagnostics are running. If EE6 follows EE0: Setup Test has not been run since the host CDF Upgrade. Diskette will not be written onto the disk. Restart the Setup Test.

E	E	7

to   **Contact the hardware service representative (page viii).**

E	E	D

E	E	E	Mount the expansion diskette.

E	E	F

to   **Contact the hardware service representative (page viii).**

E	F	E

E	F	F	3720/3721 set up instructions successfully completed.

F	0	0

to   **Contact the hardware service representative (page viii).**

F	0	A

F	0	B	MOSS IML step 1. If permanent, **contact the hardware service representative (page viii).**

| F | 0 | C |

to

| F | 1 | 3 |

Contact the hardware service representative (page viii).

Contact the hardware service representative (page viii). Switch to diskette mode to initialize the 3720.

The following is a short synopsis of the procedure "Switching to Diskette Mode." The complete procedure is given in *3720/3721 Communication Controller Operator's Guide*.

| F | 1 | 4 |

and

| F | 1 | 5 |

1. Install the primary backup diskette on which you saved the disk.

2. Set the Function Select switch to diskette mode.

3. Activate the Function Start switch.

In diskette mode, you cannot perform 3720 functions.

| F | 1 | 6 |

to

| F | 1 | 8 |

Contact the hardware service representative (page viii).

| F | 1 | 9 |

and

| F | 1 | A |

Contact the hardware service representative (page viii). Switch to diskette mode to initialize the 3720. The procedure is given under the description of the hexadecimal code F14.

| F | 1 | B |

to

| F | 1 | E |

Contact the hardware service representative (page viii).

| F | 1 | F |

and

| F | 2 | 0 |

and

| F | 2 | 1 |

Control program initialization error.

Re-initialize the 3720. Refer to *3720/3721 Communication Controller Operator's Guide*. If it fails again:

● Take a 3720 main storage dump from the host and

● **Contact the software service reprensative (page viii).**

F	2	2

to

F	2	7

Contact the hardware service representative (page viii).

F	2	8

and

F	2	C

Contact the hardware service representative (page viii). Switch to diskette mode to initialize the 3720. The procedure is given under the description of the hexadecimal code F14.

F	2	D

to

F	2	E

Contact the hardware service representative (page viii).

F	2	F

Define or verify the IPL port table. Refer to *3720/3721 Communication Controller Extended Services,* for a description of the IPL Port function.

F	3	0

The control program is not compatible with the MOSS level. Error in the control program initialization.

● Take a 3720 main storage dump from the host, then

● Check the system generation parameters/options related to the control program information table (CPIT): Buffer length, prefix length, L1/L2/L3/L4 CRP buffer lengths, control program type.

F	3	1

to

F	D	9

Contact the hardware service representative (page viii).

F	D	A

The control program is being dumped on the 3720 disk.

F	D	B

The control program is being saved on the 3720 disk.

F	D	C

The control program is being loaded from the disk into the CCU storage.

F	**E**	**4**

and

F	**E**	**5**

Contact the hardware service representative (page viii). Switch to diskette mode to initialize the 3720. The procedure is given under the description of the hexadecimal code F14.

F	**E**	**6**

Contact the hardware service representative (page viii).

F	**E**	**7**

MOSS IML is completed. The control program is loaded. MOSS is offline, because of a transient error.

F	**E**	**8**

Alternative current (ac) provided by the user was temporarily interrupted.

F	**E**	**9**

to

F	**E**	**C**

Contact the hardware service representative (page viii).

F	**E**	**D**

MOSS IML is completed with errors.

F	**E**	**E**

MOSS IML is offline. MOSS IML is completed. The control program is loaded.

F	**E**	**F**

MOSS IML is completed. The control program is not loaded. MOSS is alone.

F	**F**	**0**

Start of 3720 initialization (IPL).

F	**F**	**1**

Initialization of the CCU (phase 1).

F	**F**	**2**

Load and start of control program loader in the CCU (phase 2).

F	**F**	**3**

Load and initialization of the scanners (phase 3).

F	F	4

- Request the host operator to load the control program (phase 4), if IPL is performed from the host.

- IPL is in progress if IPL is performed from the disk.

F	F	5

Control program load/dump in process on a channel-attached 3720.
If temporary: No action required.
If permanent: **Contact the hardware service representative (page viii).**

F	F	6

Control program load/dump in process on a link-attached 3720.
If temporary: No action required.
If permanent: **Contact the hardware service representative (page viii).**

F	F	7

The control program is loaded. The control program initialization begins.
If temporary: No action required.
If permanent: **Contact the hardware service representative (page viii).**

F	F	8

Contact the hardware service representative (page viii).

F	F	9

Contact the hardware service representative (page viii).

F	F	A

Initialization (IPL) is completed with console communication adapter errors. **Contact the hardware service representative (page viii).**

F	F	B

and

F	F	C

Contact the hardware service representative (page viii).

F	F	D

Initialization (IPL) is completed without errors on diskette.

F	F	E

Initialization (IPL) is completed with scanner, disk or CCU-to-MOSS errors. **Contact the hardware service representative (page viii).**

F	F	F

Contact the hardware service representative (page viii).

The Wrap Test function is fully documented in *3720/3721 Communication Controller Extended Services*. We give in this chapter only the Tailgate Wrap Test.
Wrap Test messages are documented at the end of this chapter.
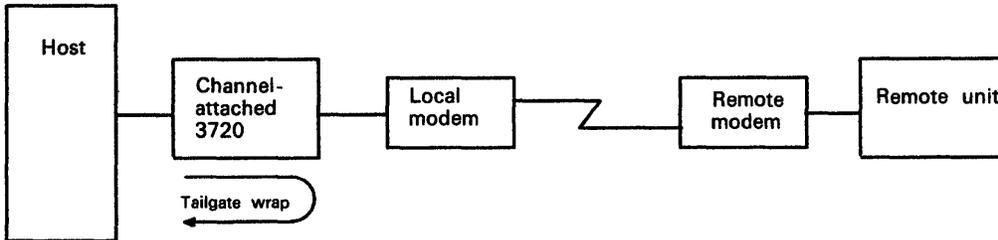
Warning: Before you start a Tailgate Wrap Test, get the wrap plugs from the Installation Coordinator:

For a LIC 1, 2, 4A or 4B: Male wrap plug P/N 6398695
For a LIC 3: Male wrap cable P/N 6398696

1 Power on and log on the operator console. Logon procedures are documented in *3720/3721 Communication Controller Operator's Guide*.

[PF1]   To position the cursor

2 [W] [T] [SEND]   To select the Wrap Test function

```
CUSTOMER ID:                      3720-1          SERIAL NUMBER:
FUNCTION ON SCREEN: WRAP TEST

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE   OFF: LOGOFF     PF1: MOVE TO SIA      PF2: CCU FNCTN   PF3: ALARM

                       WRAP TEST INITIALIZATION
-ENTER LINE ADDRESS (0 TO 27 OR 32 TO 63) ===>

-ENTER WRAP TYPE (1.2)      ===>
   1 = DATA
   2 = CONTROL LEADS

- ENTER WRAP LEVEL (1 TO 4)   ===>
   1 = MODEM                 4 = TAILGATE
   2 = NTT CABLE
   3 = LIC
-LINE(S) TO BE TESTED MUST BE DISABLED/DEACTIVATED
```

3 Enter the line address.

4 [2] To select Control Leads.

5 [4] To select Tailgate.

6 Ask the host operator to deactivate the line.

7 [SEND] A screen similar to the following one is displayed:

```
CUSTOMER ID:                        3720-1           SERIAL NUMBER:
FUNCTION ON SCREEN: WRAP TEST

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE    OFF: LOGOFF     PF1: MOVE TO SIA      PF2: CCU FNCTN   PF3: ALARM

                    WRAP PATTERN SELECTION

LINE ADDRESS: 60         TYPE: CONTROL LEAD     LEVEL: TAILGATE
LCD 4: START/STOP S/7    CNTRL PGM: NCP      LIC TYPE: 1




    SELECT ONE OPTION (1 TO 3)    ==>
      1 = USE DEFAULT PATTERN
      2 = DISPLAY DEFAULT PATTERN
      3 = CREATE PERSONAL PATTERN

PF5:CANCEL
_____
```

8 [1] [SEND] To use the default pattern.
The following screen is displayed:

```
CUSTOMER ID:                          3720-1            SERIAL NUMBER:
FUNCTION ON SCREEN: WRAP TEST

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE    OFF: LOGOFF     PF1: MOVE TO SIA    PF2: CCU FNCTN   PF3: ALARM

                      WRAP TEST START

LINE ADDRESS: 60        TYPE: CONTROL LEAD   LEVEL: TAILGATE
LCD 4: START/STOP S/7   CNTRL PGM: NCP       LIC TYPE: 1

  ENTER NUMBER OF WRAPS (1-255) OR P ==>
     P = PERMANENT WRAP
   - PLUG APPROPRIATE WRAP FACILITY AT TAILGATE.
     THEN PRESS SEND TO START THE WRAP



PF5:CANCEL
```

9 [1] [0]   To perform 10 wraps.

10   Remove the corresponding LIC cable from the tailgate.
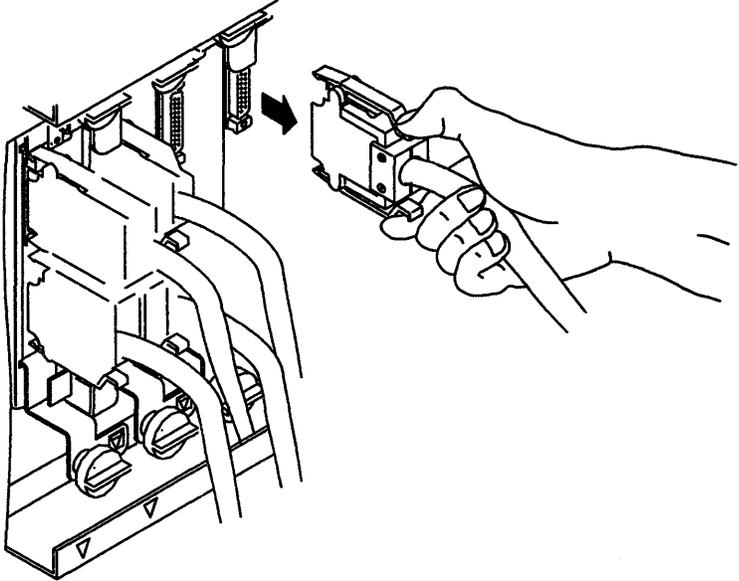
11 Put the wrap plug into the corresponding position at the tailgate.

For LIC 1, 2, 4A, or 4B: Male wrap plug P/N 6398695
For LIC 3: Male wrap cable P/N 6398696

For LIC 1 ; 2; 4A or 4B   For LIC 3
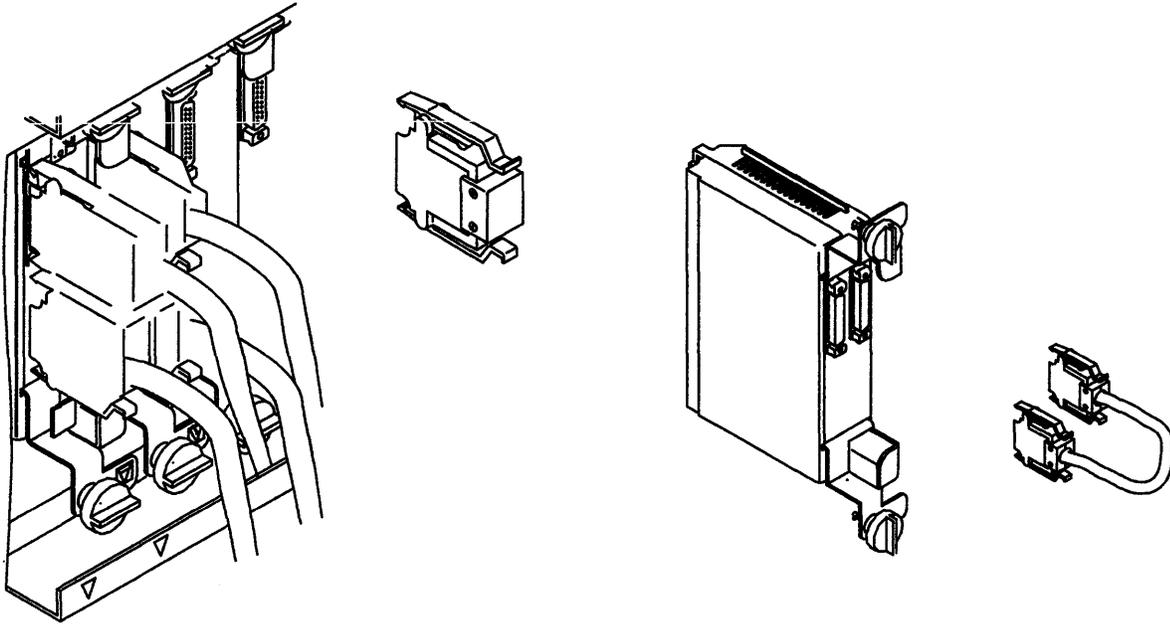
12 [SEND]   To start the test.

13 While the wrap test is in progress, the following screen is displayed:

```
CUSTOMER ID:                        3720-1        SERIAL NUMBER:
FUNCTION ON SCREEN: WRAP TEST

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE    OFF: LOGOFF    PF1: MOVE TO SIA    PF2: CCU FNCTN    PF3: ALARM

                    WRAP TEST IN PROGRESS

LINE ADDRESS: 80        TYPE: CONTROL LEAD    LEVEL: TAILGATE
LCD 4: START/STOP S/7   CNTRL PGM: NCP        LIC TYPE: 1




    PRESS BREAK IF YOU WANT TO STOP WRAP
```
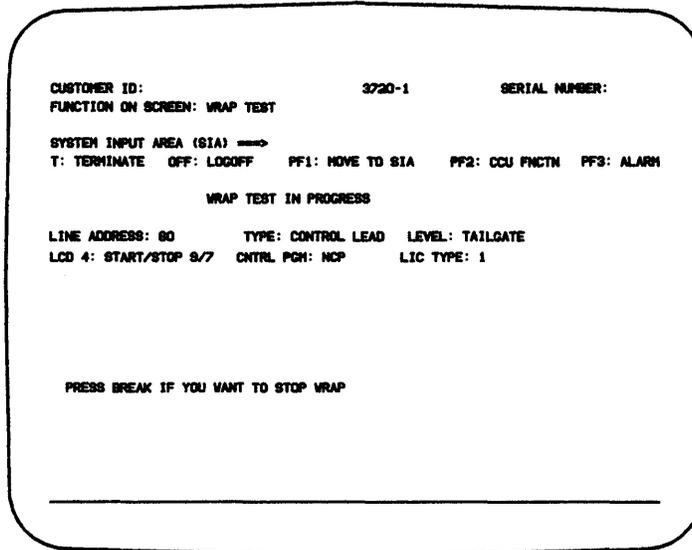
14 When the Tailgate Wrap Test is completed, either:

● The test is OK. (There is no incorrect pattern.) All transmitted wraps have been received correctly. In this case, terminate the function:

[PF1] [T] [SEND   ]

and return to the problem determination procedure for specific action.

or

● The test is NOT OK.   [H] *(Go to page viii)*
There is an incorrect pattern.

A screen similar to the following one is displayed. Additional information can also be displayed about the scanner. For more information, refer to *3720/3721 Communication Controller Extended Services.*

Note: For the LIC type 3 port the plugs are reversible. In order to fully test the card, reverse the wrap cable after the first test pass and run the test again.

```
CUSTOMER ID:                        3720-1          SERIAL NUMBER:
FUNCTION ON SCREEN: WRAP TEST

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE   OFF: LOGOFF    PF1: MOVE TO SIA    PF2: CCU FNCTN   PF3: ALARM

                    WRAP TEST START

LINE ADDRESS: 60         TYPE: CONTROL LEAD   LEVEL: TAILGATE
LCD 9: SDLC              CNTRL PGM: NCP       LIC TYPE: 4A

NBR OF WRAPS            NBR OF WRAPS          NBR OF WRAPS
TRANSMITTED: 10        RECEIVED: 10          INCORRECT: 05



- PRESS SEND TO DISPLAY FIRST INCORRECT PATTERN
PF4:WRAP TEST INITIALIZATION
      WRAP TEST COMPLETED

_____
```

15   To display the incorrect pattern: [| SEND]

A screen similar to the following one is displayed.

```
CUSTOMER ID:                        3720-1          SERIAL NUMBER:
FUNCTION ON SCREEN: WRAP TEST

SYSTEM INPUT AREA (SIA) ===>
T: TERMINATE   OFF: LOGOFF    PF1: MOVE TO SIA    PF2: CCU FNCTN   PF3: ALARM

LINE ADDRESS: 60       CONTROL LEAD WRAP: INCORRECT PATTERN


   TRANSMITTED PATTERN:     11111011  10000011

      EXPECTED PATTERN:     11111011  10100011

      RECEIVED PATTERN:     00000000  00000000



PF4:TEST RESULTS

_____
```

Tailgate Wrap Test Messages

BUFFERS NOT AVAILABLE: WRAP TEST STOPPED

Cause: The CCU control program stopped the wrap test because no more buffer space is available (control program overloaded).

Action: Retry later.

BUFFERS TEMPORARILY NOT AVAILABLE: WRAP FUNCTION CANCELED

Cause: The buffers are not available for the moment. The Wrap Test function is canceled.

Action: Select the Wrap Test function another time and try again.

CABLE NOT INSTALLED

Cause: The line that you specified is considered as not installed because there is no cable between the LIC and the modem.

Action: Enter the address of an installed line.

CCU/MOSS ERROR: WRAP FUNCTION CANCELED

Cause: A physical error occurred when communicating with the CCU. The Wrap Test function is canceled.

Action: Check that the CCU is correctly IPLed and that MOSS is online (MSA field c should display MOSS-ONLINE).

Select the Wrap Test function another time. If the problem persists, contact the hardware service representative (page viii).

CDF NOT CREATED: WRAP FUNCTION CANCELED

Cause: The 3720 configuration data file has not been tested.

Action: Contact the hardware service representative (page viii).

DISKETTE ERROR: WRAP FUNCTION CANCELED

Cause: A physical error occurred when accessing the diskette. The Wrap Test function is canceled.

Alarm A3 is displayed.

Action: Select the Wrap Test function another time. If the problem persists, contact the hardware service representative (page viii) and provide the reference code displayed with the alarm.

'EXPECTED DATA' CANNOT BE ENTERED AFTER 'Y'

Cause: You entered data in the EXPECTED area of the screen although you left the letter Y.

The letter Y means that the TRANSMIT and EXPECTED data are identical. In that case, you should not have entered the EXPECTED data.

Action: Do one of the following:

- If TRANSMIT and EXPECTED data are identical, erase the EXPECTED data

- If they are different, replace Y by N.

INPUT MUST BE PAIRS OF HEX CHARACTERS SEPARATED BY BLANKS

Cause: You did not enter two hexadecimal characters at a time.

Action: Correct your input.

INPUT MUST BE 8 BINARY DIGITS

Cause: The digits that you entered are either less than eight or not binary.

Action: All dots of the field in error must be replaced by zeroes or ones.

INVALID INPUT

Cause: You did one of the following:

- You pressed SEND before entering the requested input on a screen,

- You entered one or more invalid characters,

- You entered an invalid value, for example, an address outside the specified range, or

- You made a formatting error.

Action: Do one of the following:

- Correct the erroneous input, or

- Press one of the PF keys displayed on the screen, if any.

INVALID LCD: WRAP FUNCTION CANCELED

Cause: The control program transmitted an incorrect line control definition (LCD)

Action: Contact the control program service representative.

LEVEL INCOMPATIBLE WITH SPECIFIED LINE ADDRESS

Cause: You selected a wrap level incompatible with the specified line address.

Action: Either select another wrap level or terminate the functions:

[PF1] [T] [SEND]

LIC NOT INSTALLED

Cause: You entered a line address that corresponds to a LIC that is not installed.

Action: Enter a line address that corresponds to a LIC that is installed.

LINE NOT DISABLED/DEACTIVATED: WRAP FUNCTION CANCELED

Cause: You pressed SEND before disabling or deactivating the line.

Action: Select the Wrap Test function another time. Once you have entered the line address, and the wrap type and level, make sure that the line is disabled or deactivated before pressing SEND.

LINE NOT SYSTEM GENERATED: WRAP FUNCTION CANCELED

Cause: The line that you specified had not been defined at CCU control program generation time. The Wrap Test function is canceled.

Action: Select the Wrap Test function another time and specify a valid line address.

LINE TEMPORARILY NOT AVAILABLE: WRAP FUNCTION CANCELED

Cause: You cannot perform, for the moment, wrap tests on the line that you specified. The Wrap Test function is canceled.

Action: Select the Wrap Test function another time and try again.

LINE TEST ACTIVE: WRAP FUNCTION CANCELED

Cause: You tried to perform the Wrap Test function on a line that is being tested (Line Test functions).

Action: None.

LINE TRACE ACTIVE: WRAP FUNCTION CANCELED

Cause: You tried to perform the Wrap Test function on a line that is being tested (Line Trace functions).

Action: None.

MOSS NOT ONLINE: WRAP FUNCTION CANCELED

Cause: The Wrap Test function is canceled because MOSS is not online.

Action: Set MOSS online and restart the wrap test. To set MOSS online do as follows:

1. [PF2]   *to display the CCU functions.*
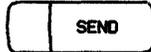
2. [M] [O] [N] [SEND]   *set MOSS online.*

NO ANSWER FROM CCU CONTROL PROGRAM: WRAP FUNCTION CANCELED

Cause: The CCU control program does not answer a MOSS request.

Action: Check that MOSS is online (MOSS-ONLINE is displayed in MSA field c). If the control program supports the wrap tests, select the Wrap Test function another time and try again. If the problem persists, contact the hardware service representative (page viii).

NO SUPPORT FOR ALC LINE: WRAP FUNCTION CANCELED

Cause: The wrap tests functions cannot be performed on ALC lines. The Wrap Test function is canceled.

Action: None.

NO SUPPORT FOR AUTOCALL LINE: WRAP FUNCTION CANCELED

Cause: The wrap tests cannot be performed on autocall lines. The Wrap Test function is canceled.

Action: None.

NO SUPPORT FOR OEM LINE: WRAP FUNCTION CANCELED

Cause: The wrap tests cannot be performed on OEM lines. The Wrap Test function is canceled.

Action: None.

NON-OPERATIONAL EP DUALCOM LINE: WRAP FUNCTION CANCELED

Cause: The line is equipped with EP Dualcom feature. The Wrap Test function cannot be performed on such lines.

Action: Do not perform a wrap test on this line.

PATTERN MUST CONTAIN AT LEAST 4 PAIRS OF HEX CHARACTERS

Cause: Your pattern contains fewer than four pairs of hexadecimal characters.

Action: Enter at least 4 pairs of hexadecimal characters. When your pattern is complete, do the following:

[C]   [SEND]

SCANNER NOT INSTALLED

Cause: The line address that you specified corresponds to a scanner that is not installed.

Action: Check the line address and re-enter.

UNABLE TO SET LINE TO WRAP MODE: WRAP FUNCTION CANCELED

Cause: The wrap tests cannot be performed on the line that you specified, for any of the following reasons:

- Modem is not powered on.

- Modem is not set on the appropriate test position.

- There is a hardware error in the modem, cable or scanner.

The error code is given in the Line Communication Status byte (LCS) on the Wrap Test Result screen.

A BER is created: Type 11.

Action: Check if the line address is valid. If it is, check if the modem is powered on and set on the appropriate position. In any other case, contact the appropriate service representative.

UNDEFINED PF KEY

Cause: You pressed a PF key that is not displayed on the screen.

Action: Do one of the following:

- Press one of the PF keys displayed on the screen, if any, or

- Enter requested input.

WRAP CONTROL LEAD AT LIC LEVEL NOT ALLOWED

Cause: You cannot perform a control lead wrap test at the LIC level.

Action: Either select another option or terminate the functions:

[PF2] [T] [　SEND　]

WRAP FUNCTION CANCELED ON OPERATOR REQUEST

Cause: You canceled the Wrap Test function by pressing PF5.

Action: None.

WRAP TEST COMPLETED

Cause: The wrap has been performed the number of times that you specified. The test is now completed.

Action: If there is an incorrect pattern, press SEND to display it.

WRAP TEST STOPPED ON OPERATOR REQUEST

Cause: You stopped the Wrap Test functions by pressing the BREAK key. The Wrap Test Result screen is displayed.

Action: None.

Perform a Console Link Test to check the interface cable from the 3720 to the:

● Local console

● Local modem (at 3720 side) for a remote console

● Local modem (at 3720 side) for an RSF connection.
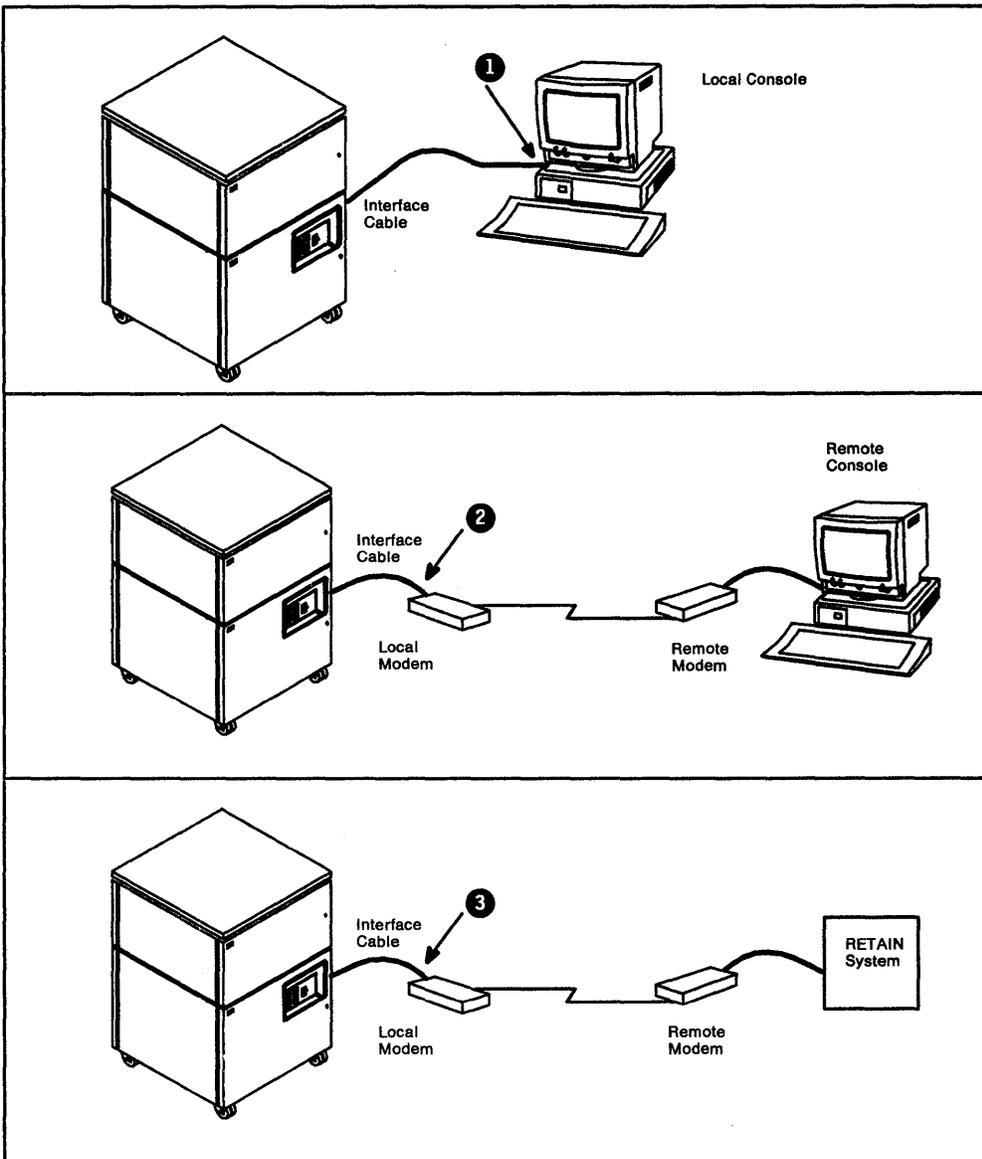
1 Before you start a Console Link Test, get the following female wrap plugs from the Installation Coordinator:
P/N 6398697
P/N 2667737 (Brazil only)

Make sure that ALL the installed consoles are NOT in operation.

For the remote console and RSF connection, look at the Remote Console Active lamp. If it is on, inform the remote operator to log off using the procedure given on page 2-3.

2 If the local console is installed, disconnect the interface cable 1 from the local console. See illustration on page 9-1.

If the remote console and the RSF connection are installed, disconnect the interface cables 2 and 3 from the local modem at the 3720 side (NOT from the remote modem). See illustration on page 9-1.

3 Put the wrap plug at the end of each disconnected cable.
Wrap Plug: P/N 6398697 for all countries except Brazil.
P/N 2667737 for Brazil only.
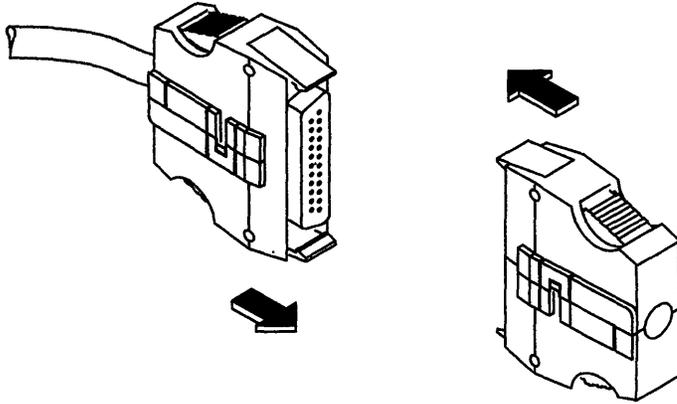
4 If at least one console is not installed, open the 3720 rear door.
Put a wrap plug (P/N 6398697 for all countries including Brazil)
at the console socket(s) **A** **B**, and/or **C** for each console not
installed. See illustration below.

remote

B

local

A

RSF

C
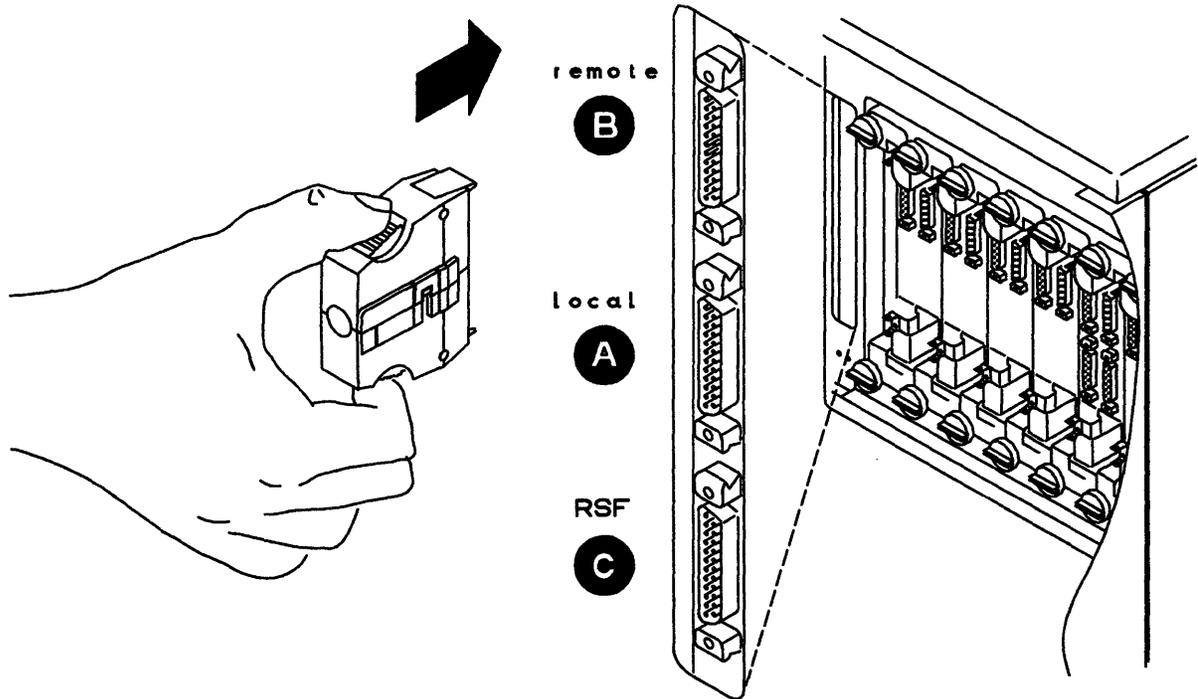
5   On the control panel, set the Function Select switch
to Console Link Test.

Function Select

Diskette Mode 10	1 Normal
9	2 MOSS IML
8	3 MOSS DUMP
Set Up Test 7	4 Maintenance
Microcode Change 6	5 Console Link Test

General
Reset

Remote CNSL
Disconnect
Request
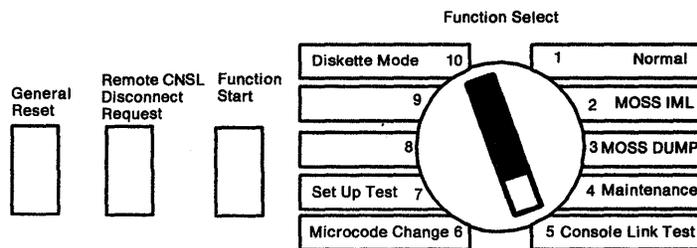
Function
Start

6   Activate the Function Start switch.

7   Read the progression and results of the Console Link Test on the
hexadecimal display of the control panel.

4	4	E

Approximately one minute after you have activated
the Function Start switch, 44E is displayed.

If 4 4 E   remains more than 20 seconds
it indicates: TEST OK

- **Remove** all wrap plugs from console sockets or
  cables. Ignore the hexadecimal codes that may
  be displayed when the wrap plugs are removed.

- Reconnect the console cables to the consoles.

- Set the Function Select switch to MOSS IML.

- Activate the Function Start switch.

4	4	A

- If there is no local console installed: ☎H (*Go to page viii*) and

Report that the initial problem
is not on the local console.

- If there is a local console installed, follow the procedure:

1. Open the rear door of the 3720.

2. Disconnect the local console internal cable from
the console socket **A** (see illustration).

3. Remove the wrap plug from the cable and put it into **A**
(For Brazil only, remove plug P/N 2667737, and put plug P/N 6398697).

4. Activate the Function Start switch on the control panel.

5. Look at the hexadecimal display:

If | 4 | 4 | E | Problem is on the interface cable for the local
console. If you have a spare cable, use it.

Otherwise: - Order a local console cable. Refer to
*3720/3721 Communication Controller
Planning and Site Preparation Guide.*

- **Remove** all wrap plugs from console
sockets or cables.

- Reconnect all installed consoles.

If the code is still | 4 | 4 | E | contact your console operator

| 4 | 4 | A | Problem is in the 3720.

☎H (*Go to page viii*) and

- **Remove** all wrap plugs from console
sockets or cables.

- Reconnect all installed consoles.
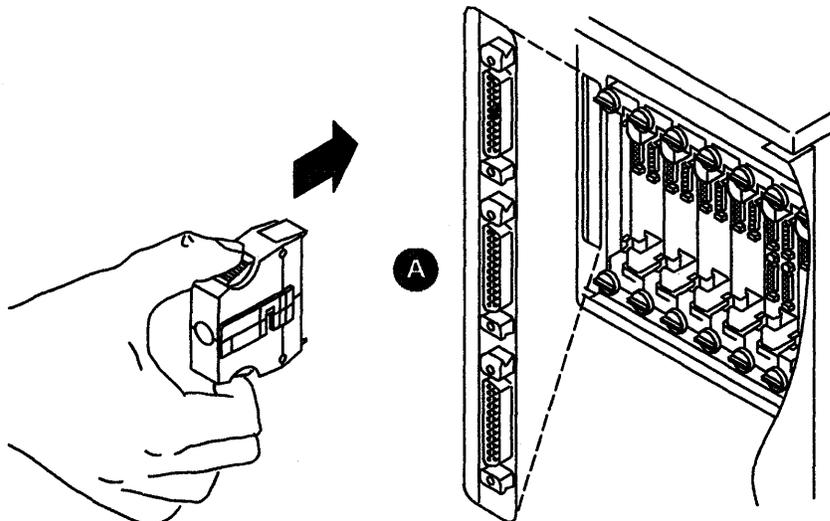
| 4 | 4 | B |

- If there is no remote console installed: ☎H *(Go to page viii)* and Report that the initial problem is not on the remote console.

- If there is a remote console installed, follow the procedure:

  1. Open the rear door of the 3720.

  2. Disconnect the remote console internal cable from the console socket **B** (see illustration).

  3. Remove the wrap plug from the cable and put it into **B** (For Brazil only, remove plug P/N 2667737, and put plug P/N 6398697).

  4. Activate the Function Start switch on the control panel.

  5. Look at the hexadecimal display:

If | 4 | 4 | E | Problem is on the interface cable for the remote console. If you have a spare cable, use it.

Otherwise: - Order a remote console cable. Refer to *3720/3721 Communication Controller Planning and Site Preparation Guide.*

- **Remove** all wrap plugs from console sockets or cables.

- Reconnect all installed consoles.

| 4 | 4 | B | Problem is in the 3720.

☎H *(Go to page viii)*   and

- **Remove** all wrap plugs from console sockets or cables.

- Reconnect all installed consoles.
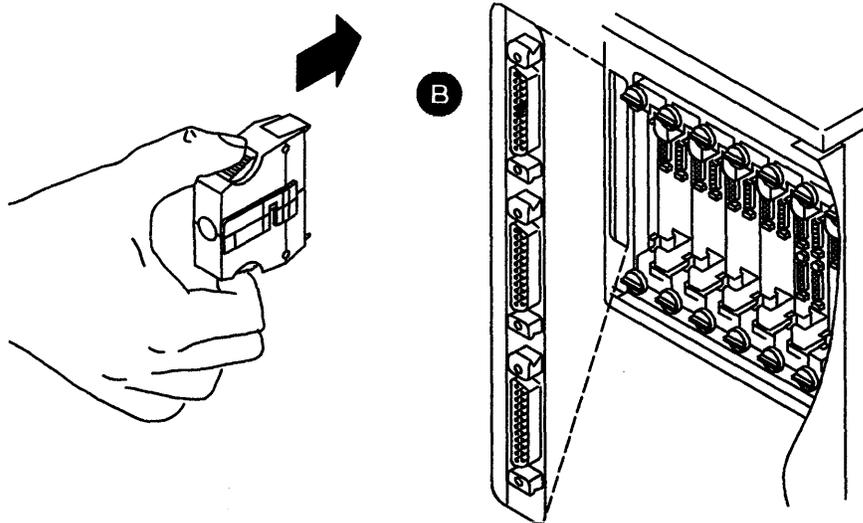
4	4	C

- If there is no RSF connection installed: 📞H (*Go to page viii*) and
  Report that the initial problem
  is not on the RSF connection.

- If there is an RSF connection installed, follow the procedure:

  1. Open the rear door of the 3720.

  2. Disconnect the internal cable for the RSF connection from
     the console socket **C** (see illustration).

  3. Remove the wrap plug from the cable and put it into **C**
     (For Brazil only, remove plug P/N 2667737, and put plug P/N 6398697).

  4. Activate the Function Start switch on the control panel.

  5. Look at the hexadecimal display:

If | 4 | 4 | E | Problem is on the interface cable for the RSF
connection. If you have a spare cable, use it.

Otherwise: - Order an RSF connection cable. Refer to
*3720/3721 Communication Controller
Planning and Site Preparation Guide.*

- **Remove** all wrap plugs from console
  sockets or cables.
- Reconnect all installed consoles.

| 4 | 4 | C | Problem is in the 3720.

📞H (*Go to page viii*) and

- **Remove** all wrap plugs from console
  sockets or cables.
- Reconnect all installed consoles.
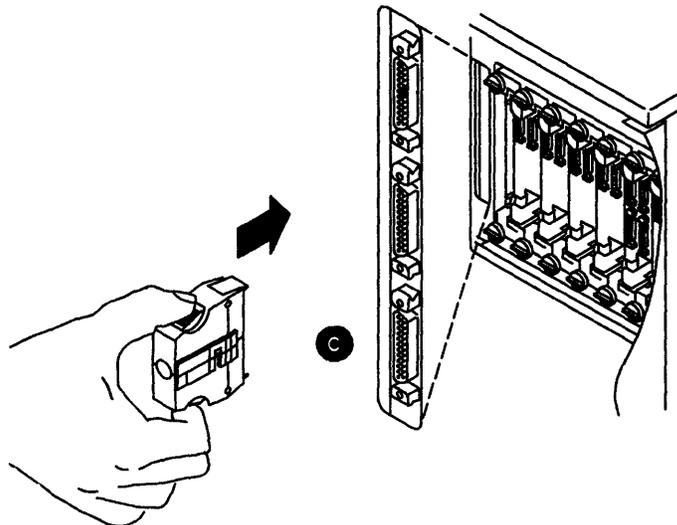
| 4 | 4 | 7 |

Action: Either

● Put the wrap plug at the end of the local console cable, or

● Check if it is correctly plugged.

When the situation is corrected, the procedure continues automatically. If the problem persits:

(Go to page viii)

| 4 | 4 | 8 |

Action: Either

● Put the wrap plug at the end of the local modem cable of the remote console, or

● Check if it is correctly plugged.

When the situation is corrected, the procedure continues automatically. If the problem persists:

(Go to page viii)

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Action: Either

● Put the wrap plug at the end of the local modem cable of the RSF connection, or

● Check if it is correctly plugged.

When the situation is corrected, the procedure continues automatically. If the problem persists:

(Go to page viii)

If any other codes, go to page 7-1.

Appendix A. Task-Oriented Bibliography

Tasks to Be Performed: Before Installation

Network Definition Define the place of a 3720/3721 in the network. **Software Environment Definition** Define needs for IBM host-resident and controller-resident programs.	*3720/3721 Communication Controllers, Introduction,* GA33-0060
Configuration Prepare the order for one or more 3720/3721s with their configurable features, with respect to the traffic load involved. The configuration task is based on filling in sets of worksheets. The Setup Sheet is used at installation or customer setup time to plug in the cables, and remains with the controller. Other worksheets are used for system integration.	*3720/3721 Communication Controllers, Configuration Guide,* GA33-0063
Planning and Site Preparation Prepare for physical installation by planning the site environment, including power requirements. Prepare for physical installation of telephone, modem, and cables for remote console and remote support facility (RSF). Order cables and prepare cable identification labels for setup.	*3720/3721 Communication Controllers, Planning and Site Preparation Guide,* GA33-0061 *IBM Token-Ring Network Introduction and Planning Guide,* GA27-3677

Connection of non-IBM Equipment	*3720/3721 Communication Controllers, Original Equipment Manufacturer's Information,* GA33-0068
Evaluate IBM interfaces for connection of non-IBM equipment.	
Program Customization	*3725 and 3720/3721 Communication Controllers, Principles of Operation,* GA33-0013
Prepare user's application programs. Adapt existing programs.	

Tasks to Be Performed: During Installation

3720 Models 2 or 12, 3721 Models 1 or 2 Setup Instructions* Set up a 3720 Model 2 or 12 and/or a 3721 Model 1 or 2 and the cables. Perform the checkout (including power on, program loading, diagnostics). Requires Setup Sheets prepared with the *3720/3721 Configuration Guide* and cables pre-identified with labels prepared with the *3720/3721 Planning and Site Preparation Guide*. **3720/3721 Modification** Remove and/or install communication features. **3720/3721 Relocation** Relocation of 3720 Model 2 or 12 and 3721 Model 1 or 2	*3720/3721 Communication Controllers, 3720 Model 1 Feature Addition Instructions,* GA33-0110 (can also be ordered as GK2T-0280)**. *3720/3721 Communication Controllers, 3720 Model 11 Feature Addition Instructions,* GA33-0111 (can also be ordered as GK2T-0281)**. *3720/3721 Communication Controllers, 3720 Model 2 Setup Instructions,* GA33-0112 (can also be ordered as GK2T-0282)**. *3720/3721 Communication Controllers, 3720 Model 12 Setup Instructions,* GA33-0113 (can also be ordered as GK2T-0283)**. *3720/3721 Communication Controllers, 3721 Models 1 and 2 Setup Instructions,* GA33-0114

* The 3720 Models 1 and 11 will be installed by IBM personnel.

** Kit also includes GA33-0067.

Tasks to Be Performed: At Integration into the Network

Connect Attached Equipment Connect operator console(s) and RSF IBM terminals Requires Console Sheet prepared with the *3720/3721 Configuration Guide*	

3720/3721 Customization
 	
Update files, such as:
 	
    Passwords
    Line speeds
    Link IPL port
    LIC weights
 	
Save disk contents on backup diskettes. Requires Link IPL, Requirements, and Plugging Sheets prepared with the *3720/3721 Configuration Guide*.
	3720/3721 Communication Controllers, System Integration, GA33-0067*
	
	(A copy of this manual should be available at each console)

Initialization Initialize 3720/3721.	

* Is also included in the following kits:

GK2T-0280
GK2T-0281
GK2T-0282
GK2T-0283

Tasks to Be Performed: During Operation

Daily Operation Run everyday applications.	*3720/3721* *Communication Controllers,* *Operator's Guide* GA33-0065 (can be ordered as GK2T-0277)*
Problem Determination Use: • Procedures • Panel hexadecimal codes • Alarms, alerts, and NetView messages	*3720/3721* *Communication Controllers,* *Problem Determination Guide* GA33-0086 (can be ordered as GK2T-0277)* *IBM Token-Ring Network* *Problem Determination Guide,* SY27-0280 (can be ordered as SX27-3710)*. (A copy of each of these manuals should be available at each console)
Function Management Manage MOSS functions	*3720/3721* *Communication Controllers,* *Extended Services* GA33-0066 (must be ordered as GK2T-0278)** (A copy of this manual should be available at each console)

* SK2T-0277 includes GA33-0065 and GA33-0086 in a common binder.

** SK2T-0278 includes GA33-0066 and binder.

List of Abbreviations

CA	channel adapter	**MSA**	machine status area
CCU	central control unit	**MSLA**	multi-subchannel line adapter
CNSL	console	**MOSS**	maintenance and operator subsystem
del char	delete character	**NAUN**	nearest address upstream neighbour
DMA	direct memory access	**NPDA**	network problem determination application (CNN)
dsbl	disabled		
enbl	enabled	**NTRI**	NCP token-ring interconnection
FNCTN	function	**P/N**	part number
hex	hexadecimal	**RPO**	remote power off
id	identification	**SIA**	system input area
IML	initial microprogram load	**TIC**	token-ring interconnection coupler
ins char	insert character	**TRA**	token-ring adapter
IPL	initial program load	**TRI**	token-ring interconnection
L	link	**TRM**	token-ring adapter multiplexer
		TRSS	token-ring subsystem

Glossary

central control unit (CCU). The communication controller hardware unit that contains the circuits and data flow paths needed to execute instructions and to control its storage and the attached adapters.

channel adapter (CA). A communication controller hardware unit used to attach the controller to a Host System channel.

communication controller (CC). A type of communication control unit whose operations are controlled by a program stored and executed in the unit.

communication scanner (CS). The communication scanner monitors communication lines and local/remote data links for service request.

diskette. A thin, flexible magnetic disk, and its protective jacket, that is used with the 3720 to record control codes, diagnostics, programs for MOSS functions, errors, and monitored data.

diskette drive. The mechanism where diskettes are inserted.

host system. A data processing system connected to and communicating with a data communication network through the controller

initial microprogram load (IML). The loading of the control code from the diskette into the MOSS and the communication scanner processors.

initial program load (IPL). The process by which a configuration image is loaded into storage at the beginning of a work day or after a system malfunction.

line interface coupler (LIC). A circuit that attaches up to four communication interface cables to the controller.

line speed. The maximum rate at which signals may be transmitted over a given channel.

local operator console. Operator console attached to the 3720 with a cable.

maintenance and operator subsystem (MOSS). Subsystem of the 3720 provides unit operation and Field Engineering service facilities.

modem. Contraction of modulator-demodulator. A device that modulates and demodulates signals transmitted over data communication facilities.

MOSS down. Term used to indicate a major failure of the MOSS subsystem. The controller may continue normal processing, but IML or system restart is not possible.

NetView. An IBM licensed program used to monitor a network, manage it, and diagnose its problems.

network control program (NCP). A program generated by the user from a library of IBM-supplied modules that controls the operation of the communication controller.

remote operator console. Operator console attached to a system through a data link.

set up. Initial installation of an IBM product or system performed by the customer.

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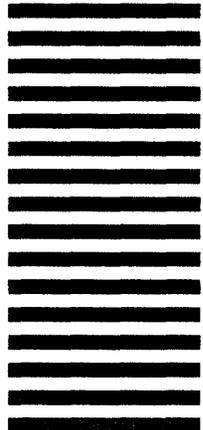
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