EC 826380		PN 2597105
27MAY83		

Work station Subsystem Entry Point

5360 Systems Unit

PAGE 1 OF 1

ENTRY POINTS

FROM		ENTER	THIS MAP	
MAP		ENTRY	PAGE	STEP
NUMBER		POINT	NUMBER	NUMBER
0105		A	1	001
0199		A	1	001

001

(Entry Point A)

MAP DESCRIPTION:

This is the entry point to the work station subsystem MAPS. Directions will be provided to assist in isolating local work station problems.

ASSUMPTIONS:

- Customer Problem Determination completed.
 - 1. System Problem Determination procedures.
 - 2. On-Line Problem Determination (OLPD).
 - 3. Problem Summary Form filled out.

- CSR PD

I. Procedures available.:

A. MDIs:

- Work station controller (36 w/s). GENERAL MIM 01-510
- 2. 2nd work station controller (72 w/s). GENERAL MIM 01-510
- B. Network Analysis:
- 1. GENERAL MIM 01-530
- C. Work Station Cable Check:
 - 1. GENERAL MIM 01-525
- D. Cable Signal Quality Check: 1. Work Station MIM 70-330
- E. W/S Intermittent MAP: 1. MAP 0370

No Trouble Found:

Either the problem is not in this area or more analysis is needed using the tools above.

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04NOV85 PN 2596087

EC 842350 PEC 826487

MAP 7001-1

Work station Subsystem Entry Point

5360 Systems Unit

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ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0101	AA	1	001
0105	AA	1	001
7080	AA	1	001

001

Y N

(Entry Point AA)

EXIT POINTS

EXIT THIS MAP		то	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
2	009	7002	AA
2	014	7002	AA
2	016	7002	AA
2	017	7080	AA

MAP DESCRIPTION:

This is the entry point to the work station subsystem MAPS.

START CONDITIONS: None

FRUs PARTIALLY TESTED: None

Is there information displayed on the system console?

002 Is the console power on? Y N

003 - Turn the console power on.

004

Is the console set to normal mode? Y $\,N\,$

005

- Set the console to normal mode.

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15Feb84 PN 2596087 EC 826487 PEC 826380 MAP 7001-1

2 2 A B Work station Subsystem

5360 Systems Unit

PAGE 2 OF 2

006

B 1

An obvious console problem could be a blank screen (no cursor), rolling screen, terminal check indicator, bound key, and so on. If the console does not have an obvious problem it should be in the normal power up condition.

Is the console in the normal power up condition? Y $\,N\,$

007

Go to the console and perform the repairs using the display station maintenance procedures.

800

Does the console have the cable through feature (see display station manuals)?

ΥN

009 Go To Map 7002, Entry Point AA.

010

Is the address of the console set to 0?

ΥN

011 - Set the console address to 0.

012

Is the cable through switch on the last work station of port 0 set to the off (1) position (see display station manuals)?

Y N

013

- Set the cable through switch to the off position.

014

Go To Map 7002, Entry Point AA.

015

A 1

Is the problem, with a work station(s) other than the system console?

N

016

Go To Map 7002, Entry Point AA.

017

Go To Map 7080, Entry Point AA.

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 EC 826487
 PEC 826380

 MAP 7001-2

Work station Attachment Entry Point

5360 Systems Unit

PAGE 1 OF 4

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
0199 7001	AA AA	1	001

EXIT POINTS

EXIT THIS MAP		то	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
2	004	7099	AA

001

(Entry Point AA)

- Note 1: The work station attachment MDIs are accessible only through the system unit control panel.
- Run the work station attachment MDIs:
- Insert the DIAG21 diskette.
- Select mode E.
- Enter FOC2.
- Press the Load key on the control panel. The system will run for approximately 1 minute and then stop with b421 in the display. The DIAG21 diskette will be ejected when the system stops if the system has a 72MD diskette attachment.
- Press the CSP Start key on the control panel. The system will start displaying messages on the console after approximately 2 minutes. The system will stop without displaying a message on the console if an error is detected.

Has the system stopped (CSP Run light off)?

Y N

002

Is there a message displayed on the console? Y $\,N\,$

003

The system will run for approximately 2 minutes until it stops or displays a message on the console. Return to the question in step 001.

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MAP DESCRIPTION:

This MAP contains the instructions for running anc interpreting the work station attachment MDIs.

START CONDITIONS:

MAP 7001 has been used.

FRUs PARTIALLY TESTED: None

15Feb84 PN 2596088 EC 826487 PEC 826380 MAP 7002-1

2 2 A B

Work station Attachment

5360 Systems Unit

PAGE 2 OF 4

004

A B 1 1

The message in note 2 will be displayed on the console.

The work station attachment MDIs have not detected any errors. MAP 7099 will describe your options.

Go To Map 7099, Entry Point AA.

005

The work station attachment MDIs have detected an error.

Is there more work stations on port 0 other than the system console?

Y N

006

(Entry Point BB)

The work station attachment MDIs have detected an error.

- Display and record the contents of LSR4 and LSR5.
- Select mode 1.
- Enter 0004.
- Press the Display Output key.
- Record the contents of the display lights (LSR4).
- Enter 0005.
- Press the Display Output key.
- Record the contents of the hex display lights (LSR5).

Go to the MAP and entry point indicated through LSR4 and LSR5.

LSR4 contains the number of the map. LSR5 contains the entry point in the map. You must use the map and entry point to continue diagnosing the problem.

Note 2: The work station MDIs (MDI MAPs) have

completed. No trouble found.

Example: If LSR4 contains 7050 and LSR5 contains 00bb then you would go to MAP 7050, Entry Point BB.

15Feb84 PN 2596088 EC 826487 PEC 826380 MAP 7002-2

MAP 7002-2

3 C

Work station Attachment

5360 Systems Unit

PAGE 3 OF 4

007

C 2

- Set the cable through switch to the off position on the console and remove the cable from port 2 of the console (This will isolate all port 0 work stations except the system console from the system).
- Rerun the work station attachment MDIs.
- Insert the DIAG21 diskette.
- Select mode E.
- Enter FOC2.
- Press the Load key on the control panel. The system will run for approximately 1 minute and then stop with b421 in the display. The DIAG21 diskette will be ejected when the system stops if the system has a 72MD diskette attachment.
- Press the CSP Start key on the control panel. The system will start displaying messages on the system console after approximately 2 minutes. The system will stop without displaying a message on the system console if an error is detected.

(Entry Point CC)

Has the system stopped (CSP Run light off)? Y N

008

Is there a message displayed on the console? Y N

009

The system will run for approximately 2 minutes unitl it stops or displays a message on the console.

Go to Step 007, Entry Point CC.

15Feb84 PN 2596088 EC 826487 PEC 826380 MAP 7002-3

4 4 D E

D E 3 3

Work station Attachment

5360 Systems Unit

PAGE 4 OF 4

010

The message in Note 3 will be displayed on the console.

You have a problem with a work station on port 0 other than the system console.

- Run the twinaxial cable MDI MAP.
- To run the twinaxial cable MDI MAP:
- Insert the DIAG21 diskette.
- Select mode E.
- Press the Load key.

The system will run for approximately 2 minutes and then display a menu on the console.

- Select the MDI MAPs option. The system will display a second menu on the console.

- Select the system console option. The system will display more instructions on the console. Follow those instructions to run the twinaxial cable IMDI MAP.

Note 3: The work station MDIs (MDI MAPs) have completed. No trouble found.

011

Go to Page 2, Step 006, Entry Point BB.

15Feb84 PN 2596088 EC 826487 PEC 826380 MAP 7002-4

T6104 FRU Isolation MAP

5360 Systems Unit

PAGE 1 OF 3

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C201	AA	1	001

EXIT POINTS

EXIT THIS MAP		то	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
2	007	0121	Α
2	010	0121	Α
2	012	0121	Α
3	013	0121	Α

001

(Entry Point AA)

- Loop on the System Cycle Steal Interface Test (T6104).

- Insert diskette DIAG21.
- Select mode E.
- Enter F1C2.

- Press the Load key.

The system will run for approximately 1 minute and then stop with b421 in the display.

- Enter 6104.

- Press the CSP Start key.

The system will continuously loop on the test.

- Probe the following pin:

Up Light: On Down Light: Off

A-A1H2G12 (I/O TBI bit 1). Are the lights correct?



MAP DESCRIPTION:

This MAP supplies FRU isolation when a failure occurs on the System Cycle Steal Interface Test.

START CONDITIONS:

Entry Point AA - A failure has occurred in the work station attachment Good Machine Path MAP C201 during the System Cycle Steal Interface Test (T6104).

FRUs PARTIALLY TESTED:

A-A1J2 (work station adapter card) A-A1H2 (work station controller card)

15Feb84	PN 2596089
EC 826487	PEC 826380
	MAP 7005-1

A B 1 1

C D

```
T6104 FRU Isolation MAP
                                                    C D
              5360 Systems Unit
              PAGE 2 OF 3
  002
  - Select mode 6.
  - Press the Power key (power off).
  - Remove the A-A1J2 (work station adapter card).
  - Press the Power key (power on).
  - Probe the following:
          Light: On
    Up
    Down Light: Off
   A-A1H2G12 (I/O TBI bit 1).
  Are the lights correct?
  Y N
    003
    Bad card:
    A-A1H2 (work station controller card).
                                                    009
  004
  Bad card:
  A-A1J2 (work station adapter card).
005
- Probe the following pins for possible open nets and
 record any failing pins with wrong readings:
        Light: On
  Up
  Down Light: On
  A-A1H2M06 (system ARS bit C)
         SO5 (system base cycle
                                                    011
                steal request)
         SO7 (system ARS bit B)
         SO9 (system TBI bit 6)
         S13 (system TBI bit 0)
         U10 (system ARS bit A)
         U13 (system burst cycle
                request).
Are the lights correct?
  N
```

MAP 7005-2 **006** - Probe the failing pin recorded in the preceeding step: Up Light: On Down Light: Off Are the lights correct? Y N 007 Go To Map 0121, Entry Point A. 008 Bad card: A-A1H2 (work station controller card). - Probe the following pin for possible open net: Light: On Up Down Light: On A-A1H2M09 (system channel busy). Are the lights correct? ΥN 010 Go To Map 0121, Entry Point A. - Probe the following pins: Up Light: On Down Light: Off A-A1H2P13 (system TBI bit 4) U11 (system TBI bit 3). Are the lights correct? Y N 012 Go To Map 0121, Entry Point A. 15Feb84 PN 2596089

EC 826487

3 E

PEC 826380 MAP 7005-2

MAP 7005-3

T6104 FRU Isolation MAP

5360 Systems Unit

PAGE 3 OF 3

013

E 2

Bad card:

A-A1H2 (work station controller card).

Note: If this card does not fix the failure, Go To Map 0121, Entry Point A.

15Feb84 PN 2596089 EC 826487 PEC 826380 , MAP 7005-3

5360 Systems Unit

PAGE 1 OF 2

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202	AA	1	001

001

(Entry Point AA)

- Loop on the controller set up test (TC246).
- Insert diskette DIAG21.
- Select mode E.
- Enter F1C2.
- Press the Load key.

The system will run for approximately 1 minute and then stop with b421 in the display.

- Enter C246.
- Press the CSP Start key.
- The system will continuously loop on the test.
- Probe the following:

Up Light: On Down Light: On

A-A1J2M13 (16 mhz in). Are the lights correct?

ΥN

002

Bad card: A-A1J2 (work station adapter card).

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MAP DESCRIPTION:

This MAP supplies FRU isolation when a failure occurs on the control set up test. It finds the failing FRU.

START CONDITIONS:

Entry Point AA - A failure has occurred in the work station adapter Good Machine Path MAP C202 during the controller set up test (TC246).

FRUs PARTIALLY TESTED:

A-A1J2 (work station adapter card) A-A1H2 (work station controller card)

15Feb84 PN 2596090 EC 826487 PEC 826380 MAP 7008-1

2 A

```
A
1
              TC246 FRU Isolation MAP
              5360 Systems Unit
              PAGE 2 OF 2
003
- Probe the following:
  Up
        Light: On
  Down Light: On
  A-A1J2M02 (S1 clock in)
         M10 (S2 clock in).
Are the lights correct?
γ
  Ν
  004
  Bad card:
  A-A1J2 (work station adapter card).
005
- Probe the following:
        Light: On
  Up
  Down Light: Off
  A-A1J2Y11 (J LSSD)
         Y12 (clear LSSD)
         Y30 (K LSSD)
         Y32 (set LSSD).
Are the lights correct?
Y N
  006
  Bad card:
  A-A1J2 (work station adapter card).
007
- Probe the following:
  Up
        Light: On
  Down Light: Off
 A-A1J2P13 (tieup A).
Are the lights correct?
  Ν
BC
```

```
Bad card:
  A-A1J2 (work station adapter card).
- Probe the following:
         Light: On
  Down Light: Off
 A-A1H2J11 (I/O base cycle steal request).
Are the lights correct?
  - Select mode 6.
  - Press the Power key (power off).
  - Remove the A-A1J2 (work station adapter card).
  - Press the Power key (power on).
  - Probe the following:
     Up
            Light: On
     Down Light: Off
    A-A1H2J11 (I/O base cycle steal request).
  Are the lights correct?
  Y N
     011
     Bad card:
     A-A1H2 (work station controller card).
  Bad card:
  A-A1J2 (work station adapter card).
Bad card:
A-A1J2 (work station adapter card).
```

MAP 7008-2

BC

008

Up

Y N

010

012

013

009

```
15Feb84
            PN 2596090
EC 826487
            PEC 826380
            MAP 7008-2
```

5360 Systems Unit

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ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202	AA	1	001

001

(Entry Point AA)

- Run the I/O channel lines test (TC235).
- Insert diskette DIAG21.
- Select Mode E.
- Enter F1C2.
- Press the Load key.

The system will run for approximately 1 minute and then halt with b421 in the display.

- Press the MSP Stop key (the Stop light appears).
- Enter C235.
- Press the CSP Start key. The system will run the test and then halt.
- Press the MSP Stop key (the Stop light disappears and the MSP is able to continue processing).
- Display the contents of LSR6.
- Select Mode 1.
- Enter 0006.
- Press the Display Output key. Contents of LSR6 will be displayed in the display.
- Is the contents of LSR6 Cxxx or X8xxx?

Y N

002

Go to Page 3, Step 012, Entry Point BB.

MAP DESCRIPTION:

This MAP supplies FRU isolation when a failure occurs on the I/O channel control lines. It finds the failing FRU.

START CONDITIONS:

Entry Point AA - A failure has occurred in the work station adapter good machine path MAP C202 during the I/O channel lines test (TC235).

FRUs PARTIALLY TESTED:

A-A1J2 (work station adapter card) A-A1H2 (work station controller card)

> 15Feb84 EC 826487

PN 2596091 PEC 826380 MAP 7010-1

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2 A

A 1 BC **TC235 FRU Isolation MAP** MAP 7010-2 5360 Systems Unit PAGE 2 OF 6 **003** 006 - Loop on the I/O channel lines test (TC235), - Select mode 6. - Select mode E. - Press the power key (power off). - Enter C235. - Remove the A-A1J2 (work station adapter card). - Press the CSP Start key. The system will - Press the Power key (power on). continuously loop on the test. - Probe the failing pin that was recorded in the - Probe the following and record any pin with wrong preceeding step. readings: Up Light: On Up Light: On Down Light: Off Down Light: On Are the lights correct? A-A1J2B02 (1/0 control out) Y N B07 (1/0 DB0 bit P) B10 (1/0 service out) 007 B12 (1/0 DB0 bit 1) Bad card: B13 (1/0 DB0 bit 7) A-A1H2 (work station controller card). DO4 (1/0 DB0 bit 0) DO6 (1/0 DB0 bit 3) 008 D07 (1/0 DB0 bit 4) Bad card: D09 (1/0 strobe)A-A1J2 (work station adapter card). D10 (I/0 DB0 bit 6)D11 (1/0 DBO bit 2) 009 D12 (1/0 DB0 bit 5). - Probe the following: Are the lights correct? Y N Light: On Up Down Light: On 004 - Probe the failing pin that was recorded in the A-A1H2D05 (I/O service in). preceeding step. Are the lights correct? Y N Up Light: Off Down Light: On 010 Bad card: Are the lights correct? A-A1H2 (work station controller card) ΥN ---or---A-A1J2 (work station adapter card). 005 Bad card: 011 A-A1H2 (work station controller card). Bad card: A-A1J2 (work station adapter card). 15Feb84 PN 2596091 EC 826487 PEC 826380 B C MAP 7010-2

5360 Systems Unit

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012

(Entry Point BB)

Is the contents of LSR6 6000?

Y N

013 Go to Page 4, Step 019, Entry Point CC.

014

- Loop on the I/O Adapter Wrap test (TC236).

- Select mode E.

- Enter C236.

- Press the CSP Start key.

The system will continuously loop on the test.

- Probe the following and record any pin with wrong readings:

Up Light: On Down Light: On

A-A1H2G02 (I/O DBI bit 0)

GO3 (1/0 DB1 bit 2) GO4 (1/0 DB1 bit 3) G10 (1/0 DB1 bit 5) J02 (1/0 DBI bit 1) J04 (1/0 DB1 bit 4) J05 (1/0 DB1 bit 6) J06 (1/0 DB1 bit 7).

Are the lights correct?

Y N

D

015

- Select mode 6.
- Press the power key (power off).

- Remove the A-A1J2 (work station adapter card).

- Press the Power key (power on).

- Probe the failing pin or pins that was/were recorded in the preceeding step.

Up Light: On Down Light: Off

(Step 015 continues)

MAP 7010-3

(Step 015 continued) Are the lights correct? YN 016 Bad card:

A-A1H2 (work station controller card).

017

Bad card: A-A1J2 (work station adapter card).

018

D

Bad card: A-A1J2 (work station adapter card) ---or---A-A1H2 (work station controller card).

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PEC 826380 MAP 7010-3

5360 Systems Unit

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019

(Entry Point CC) Is the contents of LSR6 2000? Y N

020

Go to Page 5, Step 030, Entry Point DD.

021

- Loop on the I/O channel lines test (TC235).

- Select mode E.

- Enter C235.

- Press the CSP Start key.

The system will continuously loop on the test.

- Probe the following:

Up Light: On Down Light: On

A-A1J2B03 (I/O CBO bit 1). Are the lights correct?

ΥN

022

- Select mode 6.

- Press the Power key (power off).

- Remove the A-A1J2 (work station adapter card).

- Press the Power key (power on).

- Probe the following:

Up Light: On Down Light: Off

A-A1J2B03. Are the lights correct? Y N

r IN

023

Bad card:

A-A1H2 (work station controller card).

024

Bad card:

A-A1J2 (work station adapter card).

MAP 7010-4

025

F

- Probe the following:

Up Light: On Down Light: On

A-A1J2B04 (I/O CBO bit 2). Are the lights correct? Y N

026 Bad card: A-A1H2 (work station controller card).

027

```
- Probe the following:
```

Up Light: On Down Light: On or Off

A-A1H2J07 (I/O DBI bit P). Are the lights correct? Y N

028 Bad card: A-A1H2 (work station controller card).

029

Bad card: A-A1H2 (work station controller card) ---or---A-A1J2 (work station adapter card).

> 15Feb84 PN 2596091 EC 826487 PEC 826380 MAP 7010-4

Ε

5360 Systems Unit

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030

(Entry Point DD)

- Loop on the I/O adapter wrap test (TC235).
- Select mode E.
- Enter C235.
- Press the CSP Start key.
- The system will continuously loop on the test.
- Probe the following and record any pin with wrong readings:

Up Light: On Down Light: On or Off

A-A1H2D13 (I/O tag bit 4) A-A1H2J07 (I/O DBI bit P).

Are the lights correct?

ΥN

031

- Select mode 6.
- Press the power key (power off).
- Remove the A-A1J2 (work station adapter card).
- Press the Power key (power on).
- Probe the failing pin that was recorded in the preceeding step.

```
Up Light: On
Down Light: Off
```

Are the lights correct?

ΥN

032 Bad card: A-A1H2 (work station controller card).

033

Bad card:

A-A1J2 (work station adapter card).

Ö34

F

- Probe the following and record any pin with wrong readings:

Up Light: On Down Light: On

A-A1J2B03 (I/O CBO bit 1) A-A1J2B07 (I/O DBO bit P) A-A1J2D02 (I/O CBO bit 0). Are the lights correct?

'N

035

- Probe the failing pin.

Up Light: Off Down Light: On

Are the lights correct? Y N

> 036 Bad card: A-A1H2 (work station controller card).

037

- Select mode 6.
- Press the power key (power off).
- Remove the A-A1J2 (work station adapter card).
- Press the Power key (power on).
- Probe the failing pin that was recorded in the preceeding step.

Up Light: On Down Light: Off

Are the lights correct? Y N

038

Bad card:

A-A1H2 (work station controller card).

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EC 826487	PEC 826380
	MAP 7010-5

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039

Bad card:

A-A1J2 (work station adapter card).

. 040

Bad card:

A-A1J2 (work station adapter card).

15Feb84 PN 2596091 EC 826487 PEC 826380 MAP 7010-6

5360 Systems Unit

PAGE 1 OF 4

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202	AA	1	001

001

(Entry Point AA)

- Loop on the adapter wrap test (TC236).
- Insert diskette DIAG21.
- Select Mode E.
- Enter F1C2.
- Press the Load key.
- Press the MSP Stop key (the Stop light appears).
- Enter C236.
- Press the CSP Start key.
- The system will run the test and stop.
- Press the MSP Stop key (the Stop light disappears and the MSP is able to continue processing).
- Display the contents of LSR6.
- Select mode 1.
- Enter 0006.
- Press the Display Output key. Contents of LSR6 will be displayed in the display.

Is the contents of LSR6 4000?

Y.N

2 A

002

Go to Page 3, Step 010, Entry Point BB.

Ġ

MAP DESCRIPTION:

This MAP supplies FRU isolation when a failure occurs on the adapter wrap test. It finds the failing FRU.

START CONDITIONS:

Entry Point AA - A failure has occurred in the work station good machine path MAP C202 during the adapter wrap test (TC236).

FRUs PARTIALLY TESTED:

A-A1H2 (work station controller card) A-A1J2 (work station adapter card)

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15Feb84 PN 2596092 EC 826487 PEC 826380 MAP 7011-1

5360 Systems Unit

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003

- Loop on the adapter wrap test (TC236).
- Select mode E.
- Enter C236.
- Press the CSP Start key.
- The system will continuously loop on the test.
- Probe the following and record any pin with wrong readings:

Up Light: On Down Light: On

A-A1J2B12 (1/0 DB0 bit 1) D04 (1/0 DB0 bit 0).

Are the lights correct?

Ν

γ

004

- Select mode 6.
- Press the Power key (power off).
- Remove the A-A1J2 (work station adapter card).
- Press the Power key (power on).
- Probe the failing pin that was recorded in the preceeding step.

Up Light: On Down Light: Off

Are the lights correct?

ΥN

005

Bad card: A-A1H2 (work station controller card).

006

Bad card: A-A1J2 (work station adapter card).

007

В

- Probe the following and record any pin with wrong readings:

Up Light: On Down Light: On

A-A1J2D06 (1/0 DB0 bit 3) D11 (1/0 DB0 bit 2).

Are the lights correct?

```
ΥN
```

008

Bad card:

A-A1H2 (work station controller card).

009

Bad card:

A-A1J2 (work station adapter card).

15Feb84 PN 2596092 EC 826487 PEC 826380 MAP 7011-2

В

5360 Systems Unit

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010

(Entry Point BB)

- Loop on the adapter wrap test (TC236).
- Select mode E.
- Enter C236.
- Press the CSP Start key.

The system will continuously loop on the test.

Probe the following:

Up Light: On Down Light: Off

A-A1J2P06 (mod isolate in). Are the lights correct?

ΥN

011 Bad card: A-A1J2 (work station adapter card).

012

- Probe the following and record any pin with wrong readings:

Up Light: On Down Light: On

```
A-A1J2B02 (I/O control out)
A-A1J2B04 (I/O CBO bit 2)
A-A1J2D09 (I/O strobe).
```

Are the lights correct?

```
ΥN
```

013

- Probe the failing pin that was recorded in the preceeding step.

```
Up Light: Off
Down Light: On
```

Are the lights correct?

Y

CDE

N

014

Bad card:

A-A1H2 (work station controller card).

015

CDE

- Select mode 6.
- Press the Power key (power off).
- Remove the A-A1J2 (work station adapter card).

MAP 7011-3

- Press the Power key (power on).
- Probe the failing pin or pins that was recorded in the preceeding step:

Up Light: On Down Light: Off

Are the lights correct? Y N

016 Bad card: A-A1H2 (work station controller card).

```
017
```

Bad card: A-A1J2 (work station adapter card).

018

- Probe the following and record any pin with wrong readings:

Up Light: On Down Light: On

	A-A1H2G02	(1/0	DBI	bit	0)	
	G03	(1/0	DBI	bit	2)	
	G04	(1/0	DBI	bit	3)	
	G10	(1/0	DBI	bit	5)	
	J02	(1/0	DBI	bit	1)	
	J04	(1/0	DBI	bit	4)	
	J05	(1/0	DBI	bit	6)	
	J06	(1/0	DBI	bit	7)	•
Aı	e the lights c	orrect?	•			
Y	Ņ					
			15Fe	b84	l	PN 2596092
	I		EC 8	26487		PEC 826380
<u>4</u>	4					20 020000
۲	6				1	MAP 7011-3

F G 3 3

MAP 7011-4

5360 Systems Unit

PAGE 4 OF 4

Ó19

- Probe the failing pin or pins that was/were recorded in the preceeding step.

Up Light: On Down Light: Off

Are the lights correct?

ΥN

020 Bad card: A-A1H2 (work station controller card).

021

Bad card: A-A1J2 (work station adapter card).

022

Bad card: A-A1H2 (work station controller card) ---or---A-A1J2 (work station adapter card).

> 15Feb84 PN 2596092 EC 826487 PEC 826380 MAP 7011-4

5360 Systems Unit

PAGE 1 OF 3

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202	AA	1	001

001

(Entry Point AA)

- Loop on the cycle steal SICB test (TC23b).
- Insert diskette DIAG21.
- Select Mode E.
- Enter F1C2.
- Press the Load key.

The system will run for approximately 1 minute and then halt with b421 in the display.

- Enter C23b.

- Press the CSP Start key. The system will continuously loop on the test.
- Probe the following:

Up Light: On Down Light: On

A-A1J2D02 (I/O CBO bit 0). Are the lights correct?

ΥN

002

- Select mode 6.
- Press the Power key (power off).
- Remove the A-A1J2 (work station adapter card).

- Press the Power key (power on).

- Probe the failing pin or pins that was recorded in the preceeding step:

Up Light: On Down Light: Off

(Step 002 continues)

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MAP DESCRIPTION:

This MAP supplies FRU isolation when a failure occurs on the cycle steal SICB test (TC23b). It finds the failing FRU.

START CONDITIONS:

Entry Point AA - A failure has occurred in the work station adapter good machine path MAP C202, during the cycle steal SICB test (TC23b).

FRUs PARTIALLY TESTED:

A-A1H2 (work station controller card) A-A1J2 (work station adapter card)

> 15Feb84 PN 2596093 EC 826487 PEC 826380 MAP 7012-1

2 A

```
A
1
               TC23B FRU Isolation MAP
                                                      BC
               5360 Systems Unit
               PAGE 2 OF 3
  (Step 002 continued)
  Are the lights correct?
                                                         008
  Y N
     003
                                                           Up
     Bad card:
     A-A1H2 (work station controller card).
  004
  Bad card:
                                                         Y N
  A-A1J2 (work station adapter card).
                                                           009
005
- Probe the following:
  Up
        Light: On
                                                         010
  Down Light: Off
                                                         Bad card:
 A-A1J2X08 (tieup C).
Are the lights correct?
                                                      011
Y'N
  006
  Bad card:
                                                         Up
  A-A1J2 (work station adapter card).
007
- Probe the following:
  Up
        Light: On
  Down Light: On
                                                       Y N
 A-A1H2J11 (I/O base cycle steal request).
                                                         012
Are the lights correct?
Y N
                                                           Up
                                                         YN
                                                           013
                                                      33
DE
B C
```

```
MAP 7012-2
  - Probe the following:
           Light: On
     Down Light: Off
   A-A1H2J11 (I/O base cycle steal request).
  Are the lights correct?
     Bad card:
     A-A1H2 (work station controller card).
  A-A1J2 (work station adapter card).
- Probe the following pins on the A-A1H2 card and
 record any pin with wrong readings:
        Light: On
  Down Light: On
 A-A1H2D13 (I/O TBI bit 4)
            G12 (1/0 TBI bit 1)
            G13 (1/0 TBI bit 0).
Are the lights correct?
  - Probe the failing pin or pins that was/were
   recorded in the preceeding step.
           Light: Off
     Down Light: On
  Are the lights correct?
     Bad card:
     A-A1J2 (work station adapter card).
                     15Feb84
                                  PN 2596093
```

EC 826487

PEC 826380

MAP 7012-2

5360 Systems Unit

PAGE 3 OF 3

Ó14

D E 2 2

- Select mode 6.
- Press the power key (power off).
- Remove the A-A1J2 (work station adapter card).

- Press the Power key (power on).

- Probe the failing pin or pins that was/were recorded in the preceeding step.

Up Light: On Down Light: Off

Are the lights correct?

'N

015

Bad card: A-A1H2 (work station controller card).

016

Bad card: A-A1J2 (work station adapter card).

017

- Probe the following:

Up Light: On Down Light: Off

A-A1H2G07 (I/O ARS bit 7). Are the lights correct?

ΥN

018

- Select mode 6.

- Press the Power key (power off).

- Remove the A-A1J2.

- Press the Power key (power on).

- Probe the following:

Up Light: On Down Light: Off

A-A1H2G07 (I/O ARS bit 7). (Step 018 continues) (Step 018 continued) Are the lights correct? Y N

> **019** Bad card: A-A1H2 (work station controller card).

020 Bad card: A-A1J2 (work station adapter card).

021

F

- Probe the following:

Up Light: On Down Light: Off

A-A1H2B06 (-I/O ARS bit 5). Are the lights correct?

ΥN

022 Bad card: A-A1H2 (work station controller card).

023

- Probe the following:

Up Light: On Down Light: On

A-A1J2M04 (xmit data in). Are the lights correct? Y N

024

Bad card: A-A1J2 (work station adapter card).

025

Bad card: A-A1H2 (work station controller card) ---or---A-A1J2 (work station adapter card).

 15Feb84
 PN 2596093

 EC 826487
 PEC 826380

MAP 7012-3

F

5360 Systems Unit

PAGE 1 OF 2

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202	AA	1	001

001

(Entry Point AA)

- Run the program interrupt structure test (TC23A).
- Insert diskette DIAG21.
- Select Mode E.
- Enter F1C2.
- Press the Load key.
- Press the MSP Stop key (the Stop light appears).
- Enter C23A.
- Press the CSP Start key. The system will run the test and then halt.
- Press the MSP Stop key (the Stop light disappears and the MSP is able to continue processing).
- Record the contents of LSR6.
- Select Mode 1.
- Enter 0006.
- Press the Display Output key. Contents of LSR6 will be displayed in the display.

Are the contents of LSR: 09xx?



MAP DESCRIPTION:

This MAP supplies FRU isolation when a failure occurs on the program interrupt structure test (TC23A). It finds the failing FRU.

START CONDITIONS:

Entry Point AA - A failure has occurred in the work station adapter good machine path MAP C202, during the Program interrupt structure test (TC23A).

FRUs PARTIALLY TESTED:

A-A1H2 (work station controller card) A-A1J2 (work station adapter card)

> 15Feb84 PN 2596094 EC 826487 PEC 826380 MAP 7013-1

5360 Systems Unit

PAGE 2 OF 2

002

В 1

- Loop on the program interrupt structure test (TC:23A).
- Select mode E.
- Enter C23A.
- Press the CSP Start key.

The system will continuously loop on the test.

- Probe the following pins on the A1H2 card and record any pin with wrong readings:

Up Light: On Down Light: On

A-A1H2G11 (I/O interrupt request level 3) A-A1H2J09 (I/O interrupt request level 4).

Are the lights correct?

ΥN

003

- Probe the failing pin or pins that was/were recorded in the preceeding step:

Up Light: On Down Light: Off

Are the lights correct?

Ϋ́Ν

004

Bad card: A-A1H2 (work station controller card).

005

Bad card:

A-A1J2 (work station adapter card).

006

Bad card: A-A1H2 (work station controller card).

007

A 1

- Select mode 6.
- Press the power key (power off).
- Remove the A-A1J2 (work station adapter card).
- Press the Power key (power on).
- Probe the following:

Up Light: On Down Light: Off

A-A1H2G11 (I/O interrupt request level 3) A-A1H2J09 (I/O interrupt request level 4). Are the lights correct? Y N

008 Bad card: A-A1H2 (work station controller card).

009

Bad card: A-A1J2 (work station adapter card).

> 15Feb84 PN 2596094 EC 826487 PEC 826380 MAP 7013-2

5360 Systems Unit

PAGE 1 OF 2

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202	AA	1	001

001

(Entry Point AA)

- Run the Poll System Console test (TC240).
- Insert diskette DIAG21.
- Select mode E.
- Enter F1C2.
- Press the Load key.

The system will run for approximately 1 minute and then stop with b421 in the display.

- Enter C240.
- Press the CSP Start key.

The system will loop on the test.

- Note: The logic probe must be reset before each pin is probed by placing the latch switch in the 'none' position and then back to the desired position.
- Place the 'latch' switch on the logic probe to the 'up' position.
- Probe the following signals on the A-A1J2 card:
- Probe each pin at least 10 seconds.

Light: On Up Down Light: On

A-A1J2M04 (Transmit data in) A-A1J2W30 (Q0 (LCM)) A-A1J2X33 (Xmit binary data) A-A1J2Y02 (Receive clock).

Wait at least 10 seconds. Are the lights correct?

M

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EXIT TH	IS MAP	то	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
2	003	7070	AA

MAP DESCRIPTION:

This MAP supplies FRU isolation when a failure occurs on the poll system console test (TC240). It finds the failing FRU.

START CONDITIONS:

Entry Point AA - A failure has occurred in the work station adapter good machine path MAP C202 during the poll system console test (TC240).

FRUs PARTIALLY TESTED:

A-A1J2 (work station adapter card)

15Feb84 PN 2596095 EC 826487 PEC 826380

MAP 7020-1

A B TC240 FRU Isolation MAP 5360 Systems Unit PAGE 2 OF 2 002 Bad card:

A-A1J2 (work station adapter card).

003

Go To Map 7070, Entry Point AA.

15Feb84	PN 2596095
EC 826487	PEC 826380
	MAP 7020-2

FRU Callout MAP

5360 Systems Unit

PAGE 1 OF 2

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202 C202 C202 C202 C204	AA BB CC CC	1 2 2 2	001 007 007 007

EXIT POINTS

EXIT THIS MAP		то		
PAGE	STEP	MAP	ENTRY	
NUMBER	NUMBER	NUMBER	POINT	
2	004	xxxx	A	
2	006	xxxx	A	

001

(Entry Point AA)

- Display and record the contents of LSR3 high.

- Select mode 1.
- Enter 0003.
- Press the Display Output key.
- Record the contents of the hex display lights (LSR3).

MAP DESCRIPTION:

This MAP calls out a FRU for failures during good machine path MAP.

START CONDITIONS:

A failure has occurred during one of the tests in a good machine path MAP.

FRUs PARTIALLY TESTED:

A-A1H2 (work station controller card) A-A1J2 (work station adapter card)

Is the contents of LSR3 = 10xx?

ΥN

002

Bad card:

A-A1H2 (work station controller card).

003

 Measure the following pin for correct voltage reading (see chart 1 for correct reading):
 A-A1H2S06 (- 5 volts).

	Chart 1		
 Voltage	 Board pin	Volt Toler Min	tage ance Max
-5V	A-A1H2S06	l-5.5V	-4.55V
+8.5V	A-A1H2M11	+7.68V	+9.35V

(Step 003 continues)

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	MAP 7040-1
EC 826487	PEC 826380
15Feb84	PN 2596096

FRU Callout MAP

5360 Systems Unit

PAGE 2 OF 2

(Step 003 continued)

Is the reading within the specified range?

Ν

Y

004

Go To Map XXXX, Entry Point A.

005

- Measure the following pin for correct voltage reading (see chart 1 for correct reading):

A-A1H2M11 (+ 8.5 volts).

С	ł	١	а	r	t	1	

 Voltage	 Board	 	Vol Tole Min	lta era	ge nce Max	
-5V	A-A1H2	2506	-5.5V	-	4.55V	-
+8.5V	A-A1H2	2M11	+7.68	/ +	9.35V	- -

Is the reading within the specified range? Y N $\,$

006

Go To Map XXXX, Entry Point A.

007

Bad card: A-A1H2 (work station controller card).

(Entry Point BB)

Bad card: A-A1J2 (work station adapter card).

(Entry Point CC) Bad card:

A-A1H2 (work station controller card)

A-A1J2 (work station adapter card).

15Feb84 PN 2596096 EC 826487 PEC 826380 MAP 7040-2

T6101 FRU Isolation MAP

5360 Systems Unit

PAGE 1 OF 2

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C201	AA	· 1	001

|--|--|

EXIT THIS MAP		то		
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT	
2	002	0121	Α	
2	004	0121	Α	
2	006	0121	Α	
2	008	0121	Α	
2	009	0121	Α	

001

(Entry Point AA)

- Loop on the Bus Coupler Initial Address Load test (T6101).

- Insert diskette DIAG21.

- Select mode E.

- Enter F1C2.

- Press the Load key.

The system will run for approximately 1 minute and then halt with b421 in the display.

- Enter 6101.
- Press the CSP Start key. The system will continuously loop on the test.
- Probe the following pins:

```
Up Light: On
Down Light: On
```

A-A1H2M02	(system	control	out)
M03	(system	CBO bit	1)
M04	(system	CBO bit	2)
M07	(system	DBO pari	ity bit)
M12	(system	DBO bit	1)
M13	(system	DBO bit	7)
P04	(system	DBO bit	0)
P06	(system	DBO bit	3)
P09	(system	strobe)	
P10	(system	DBO bit	6)
P11	(system	DBO bit	2).

(Step 001 continues)

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MAP DESCRIPTION:

This MAP supplies FRU isolation when a failure occurs on the Bus Coupler Initial Address Load test.

START CONDITIONS:

Entry Point AA - A failure has occurred in the work station adapter good machine path MAP C201 during the Bus Coupler Initial Address Load test (T6101).

FRUs PARTIALLY TESTED:

A-A1H2 (work station controller card)

25Feb84	PN 2596097
EC 826487	PEC 826380
	MAP 7041-1

T6101 FRU Isolation MAP

5360 Systems Unit

PAGE 2 OF 2

(Step 001 continued) Are the lights correct?

ΥN

002

Go To Map 0121, Entry Point A.

003

- Probe the following pins:

Up Light: On Down Light: Off

A-A1H2P07 (system DBO bit 4) P12 (system DBO bit 5).

Are the lights correct?

ΥN

004 Go To Map 0121, Entry Point A.

005

- Probe the following pins:

Up Light: On Down Light: Off

```
A-A1H2UO2 (system DBI bit 1)
S12 (system TBI bit 1).
```

Are the lights correct?

ΥN

006

Go To Map 0121, Entry Point A.

007

Α

- Probe the following pins for possible open nets and record any failing pins with wrong readings:

Up Light: On Down Light: Off

A-A1H2P05 (system service in) U07 (system DBI parity bit). Are the lights correct?

YN

008

Go To Map 0121, Entry Point A.

009

Bad card:

A-A1H2 (work station controller card). Note: If this card does not fix the failure, **Go To Map 0121, Entry Point A.**

```
25Feb84 PN 2596097
EC 826487 PEC 826380
MAP 7041-2
```

Α

T6102 FRU Isolation MAP

5360 Systems Unit

PAGE 1 OF 2

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C201	AA	1	001

001

(Entry Point AA)

- Loop on the Bus Coupler Data Buffer and CS Counter test (T6102).

- Insert diskette DIAG21.

- Select mode E.

- Enter F1C2.

- Press the Load key.

The system will run for approximately 1 minute and then halt with b421 in the display.

- Enter 6102.

- Press the CSP Start key. The system will continuously loop on the test.

- Probe the following pins:

```
Up Light: On
Down Light: Off
A-A1H2SO2 (system DBI bit 0)
SO3 (system DBI bit 2)
SO4 (system DBI bit 3)
S10 (system DBI bit 5)
UO4 (system DBI bit 4)
UO5 (system DBI bit 6)
UO6 (system DBI bit 7).
```

Are the lights correct?

ΥN

002 Go To Map 0121, Entry Point A.

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EXIT POINTS

EXIT THIS MAP		то	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
1	002	0121	A

MAP DESCRIPTION:

This MAP supplies FRU isolation when a failure occurs on the Bus Coupler Data Buffer and CS Counter test.

START CONDITIONS:

Entry Point AA - A failure has occurred in the work station adapter good machine path MAP C202 during the Bus Coupler Data Buffer and CS Counter test (T6102).

FRUs PARTIALLY TESTED:

A-A1H2 (work station controller card)

2 A T6102 FRU Isolation MAP

5360 Systems Unit

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003 Bad card:

A 1

A-A1H2 (work station controller card).

15Feb84 PN 2596098 EC 826487 PEC 826380 MAP 7042-2
T6103 FRU Isolation MAP

5360 Systems Unit

PAGE 1 OF 1

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C201	AA	1	001

001

(Entry Point AA)

- Loop on the Bus Coupler/CSP Interrupt test (T6103).
- Insert diskette DIAG21.
- Select mode E.
- Enter F1C2.
- Press the Load key.

The system will run for approximately 1 minute and then halt with b421 in the display.

- Enter 6103.
- Press the CSP Start key. The system will continuously loop on the test.
- Probe the following pin:

Up Light: On Down Light: Off

A-A1H2U09 (system interrupt request). Are the lights correct?

ΥN

002 Go To Map 0121, Entry Point A.

003

Bad card: A-A1H2 (work station controller card). EXIT POINTS

EXIT TH	IS MAP	то	
PAGE STEP NUMBER NUMBER		MAP NUMBER	ENTRY POINT
1	002	0121	Α

MAP DESCRIPTION:

This MAP supplies FRU isolation when a failure occurs on the Bus Coupler/CSP Interrupt test.

START CONDITIONS:

Entry Point AA - A failure has occurred in the work station adapter good machine path MAP C201 during the Bus Coupler/CSP Interrupt test (T6103).

FRUs PARTIALLY TESTED: A-A1H2 (work station controller card)

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5360 Systems Unit

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ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP	ENTRY	PAGE	STEP
NUMBER	POINT	NUMBER	NUMBER
C202	AA	1	001
7020	AA	1	001

001

(Entry Point AA)

- Note: The system and all devices must be powered off when measuring resistance on a particular twinax cable.
- Select mode 6.
- Press the Power key (power off).
- Disconnect the A-A1V4 cable.
- Press the Power key (power on).
- Loop on the Driver and Receiver test (TC23F).
- Insert diskette DIAG21.
- Select mode E.
- Enter F1C2.
- Insert diskette DIAG21.
- Select Mode E.
- Enter F1C2.
- Press the Load key.

The system will run for approximately 1 minute and then halt with b421 in the display.

- Enter C23F.
- Press the CSP Start key.
- The system will loop on the test.
- Note: The logic probe must be reset before each pin is probed by placing the latch switch in the 'none' position and then back to the desired position.
- Place the 'latch' switch on the logic probe to the 'up' position.
- Probe the following pins on the A-A1J2 card.
- Probe each pin at least 10 seconds.

(Step 001 continues)

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MAP DESCRIPTION:

This MAP isolates the failure when the poll System console test (TC240) fails.

START CONDITIONS:

The work station attachment MDIs have been run.

FRUs PARTIALLY TESTED:

A-A1J2 (work station adapter card) A-A1V4 cable Cable tower port 0 A-A1 board Terminating resistors in the console (display station)

5360 Systems Unit

PAGE 2 OF 12

(Step 001 continued)

Up Light: On Down Light: On

A-A1J2Y23 (receive data 0) Z22 (select driver 0).

Are the lights correct?

```
ΥN
```

```
002
```

Bad card:

- A-A1J2 (work station adapter card).
- Replug cable.

003

- Place the 'latch' switch on the logic probe to the 'none' position.
- Select mode 6.
- Press the Power key (power off).
- Connect the A-A1V4 cable.
- Measure the resistance between A-A1J2S02 (port 0 phase B) and A-A1J2U02 (port 0 phase A).

Is the resistance between 45 and 65 ohms?

ΥN

004

- Measure the resistance between A-A1J2S02 (port 0 phase B) and A-A1J2U02 (port 0 phase A).

Is the resistance greater than 65 ohms?

ΥN

```
005
```

- Disconnect the twinaxial cable from cable tower port 0.
- Measure the resistance between A-A1J2S02 (port 0 phase B) and A-A1J2U02 (port 0 phase A).

Is the resistance between 100 and 130 ohms? \vee N

Ö06

D

- Disconnect the A-A1V4 cable.

- Measure the resistance between A-A1J2S02 (port 0 phase B) and A-A1J2U02 (port 0 phase A).

Is the resistance between 100 and 130 ohms? Y $\,N$

007

- Remove the A-A1J2 (work station adapter card).
- Measure the resistance between A-A1J2S02 (port 0 phase B) and A-A1J2D08 (ground).

Is the resistance less than 130 ohms?

YN

008

- Measure the resistance between A-A1J2S02 (port 0 phase A) and A-A1J2D08 (ground). Is the resistance less than 130 ohms? Y N

009

- Measure the resistance between A-A1J2S02 (port 0 phase B) and A-A1J2U02 (port 0 phase A).
- Is the resistance less than 130 ohms? Y $\,N$

010

There is a short on the work station adapter card.

Bad card:

A-A1J2 (work station adapter card).

- Reinstall all the cards and cables.

011

There is a short between phase OB and phase OA on the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

5360 Systems Unit

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012

E F G 2 2 2

> There is a short between phase OA and ground on the A-A1 board. Bad board: A-A1. - Reinstall all the cards and cables.

013

There is a short between phase OB and ground on the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

014

There is a short in the A-A1V4 cable. Bad cable: A-A1V4.

- Reinstall all the cards and cables.

5360 Systems Unit

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015

С 2

- Measure the resistance between phase B and the ground shield of the twinaxial cable (see figure).

	******	:	******		
****	** 10	CATOR	***	***	
***	20	0/11 011		**	*
**					**
**					**
*					*
*					*
*					*
* ***			***	۴.	*
* ***			***	۴	*
* ***			***	<i>ب</i>	*
* Phase	В		Phase	Δ	*
*	-				*
*					*
**					**
**				•	** •
***				**	*
****	**		****	***	
	******	*****	*****		
Twinax	cable	(end	view)		

Is the resistance between 45 and 65 ohms?



75 HJ

N

5360 Systems Unit

PAGE 5 OF 12

Ö16

J 4

- Disconnect the twinaxial cable from the console.
- Measure the resistance between phase B and the
- ground shield of the twinaxial cable (see figure).

;	****	;	*****	
****	** 10	CATOR	***	***
***				***
**				**
**				**
*	•			*
*				*
*				*
* ***			**:	* *
* ***			**:	* *
* ***			***	* *
* Phase	В		Phase	A *
*				*
*				*
**				**
**				**
***				***
****	**		***	***
5	*******	*****	******	
Ţwinax	cable	(end	view)	

Is the resistance less than 130 ohms?

66 KL

5360 Systems Unit

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017

K L 5 5

- Measure the resistance between phase B and phase A of the twinaxail cable (see figure).

	*****	۲ x	******	
****	** 1	OCATOR	****	***
* * *				***
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Twinax	cable	(end	view)	

Is the resistance less than 130 ohms?

Y N

018

There is a short between phase B and ground in the console. Go to the display station maintenance procedures.

- Reinstall all the cards and cables.

019

There is a short between phase B and phase A of the twinaxial cable.

- Repair or replace the cable.

020

There is a short between phase B and the ground shield of the twinaxial cable.

- Repair or replace the cable.

15Feb84	PN 2596182
EC 826487	PEC 826380
	MAP 7070-6

B H 2 4

Poll System Console Failure

5360 Systems Unit

PAGE 7 OF 12

021

- Disconnect the twinaxial cable from the console.
- Measure the resistance between phase A and the ground shield of the twinaxial cable (see figure).

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Twinax cab	le (end	view)	

Is the resistance less than 130 ohms?

ΥN

022

There is a short between phase A and ground in the console. Go to the display station maintenance procedure.

- Reinstall all the cards and cables.

023

There is a short between phase B and the ground shield of the twinaxial cable.

- Repair or replace the cable.

- Reinstall all the cards and cables.

024

- Remove the A-A1J2 (work station adapter card).

- Measure the resistance between A-A1J2S02 (port 0 phase B) and A-A1J2U02 (port 0 phase A).

Is the resistance between 100 and 130 ohms?

N ŌM 8 N

15Feb84	PN 2596182
EC 826487	PEC 826380
	MAP 7070-7

5360 Systems Unit

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025

N 7

- Measure the resistance between A-A1V4B02 (port 0 phase B) and A-A1V4D02 (port 0 phase A).

Is the resistance between 100 and 130 ohms?

ΥN

026

N

1 0 P

09 QR

- Disconnect the twinaxial cable from cable tower port 0.

- Measure the resistance between phase B and phase A of the twinaxial cable (see figure).

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Τw	inax cabl	le (end	view)	

Is the resistance between 100 and 130 ohms?

5360 Systems Unit

PAGE 9 OF 12

027

R 8

- Disconnect the twinaxial cable from the console.
- Measure the resistance between phase B at the system end of the twinaxial cable and phase B at the console end of the cable (see figure).

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Twina>	cable	(end	view)	

Is the resistance greater than 10 ohms?

N γ

028

- Measure the resistance between Phase A at the system end of the twinaxial cable and Phase A at the console end of the cable (see figure).

Is the resistance greater than 10 ohms?

Y N

029

There is an open in Phase B or Phase A internal Go to the display station to the console. maintenance procedures.

- Reinstall all the cards and cables.

030

Ô S

There is an open in Phase A of the twinaxial cable.

- Repair or replace the cable.

- Reinstall all the cards and cables.

A M P O S 2 7 8 8 9 Poll System Console Failure

5360 Systems Unit

PAGE 10 OF 12

031

There is an open in Phase B of the twinaxial cable.

- Repair or replace the cable.

- Reinstall all the cards and cables.

032

There is an open in the A-A1V4 cable. Bad cable: A-A1V4.

- Reinstall all the cards and cables.

. 033

There is an open on the A-A1 board. Bad board:

A-A1.

- Reinstall all the cards and cables.

034

There is an open on the work station adapter carcl. Bad card:

A-A1J2.

- Reinstall all the cards and cables.

035

- Remove the A-A1J2 (work station adapter card).
- Measure the resistance between A-A1J2S02 (port 0 phase B) and A-A1J2D08 (ground).
- Is the resistance between 45 and 65 ohms?

ΥN

036

There is an open in the ground shield of the twinaxial cable.

- Repair or replace the cable.

- Reinstall all the cards and cables.

5360 Systems Unit

PAGE 11 OF 12

T 1 0

- Disconnect the twinaxial cable from the console.
- Measure the resistance between A-A1J2S02 (port 0 phase B) and phase B at the console end of the twinaxial cable (see figure).

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Twina	x cable	e (end	view)	

Is the resistance less than 10 ohms?

Υ Ν

038

- Disconnect the twinaxial cable from cable tower port 0.
- Measure the resistance between phase B at the console end of the twinaxial cable and phase B at the system end of the cable.

Is the resistance less than 10 ohms?

Ν v

039

Phase B and phase A are crossed in the twinaxial cable.

- Repair or replace the cable.
- Reinstall all the cards and cables.

040

1 2 U

Phase B and phase A are crossed in the A-A1V4.

- Repair or replace the cable.

- Reinstall all the cards and cables.

15Feb84	PN 2596182
EC 826487	PEC 826380
	MAP 7070-11

⁰³⁷

Poll System Console Failure 5360 Systems Unit PAGE 12 OF 12

Ö41

U 1 1

The problem is in the console or the work station adapter card You will be sent to the display station maintenance procedures. Record this MAP and step number. If the display station maintenance procedure does not correct the problem, return to this MAP and step number. Go to the display station maintenance procedure.

Did the display station maintenance procedure correct the problem?

ΥN

042

Bad card:

A-A1J2 (work station adapter card).

- Reinstall all the cards and cables.

043

- Run the work station attachment MDIs to verify the corrected problem.

Twinaxial Interface Port 1

5360 Systems Unit

PAGE 1 OF 7

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202	cc	7	028

001

(Entry Point AA)

- Note: The system and all devices must be powered off when measuring resistance on a particular twinax cable.
- Select mode 6.
- Press the Power key (power off).
- Disconnect the A-A1V4 cable.
- Press the Power key (power on).
- Loop on the Driver and Receiver test (TC23F).
- Insert diskette DIAG21.
- Select mode E.
- Enter F1C2.
- Press the Load key.

The system will run for approximately 1 minute and then halt with b421 in the display.

- Enter C23F.
- Press the CSP Start key.

The system will loop on the test.

- Note: The logic probe must be reset before each pin is probed by placing the latch switch in the 'none' position and then back to the desired position.
- Place the 'latch' switch on the logic probe to the 'up' position.
- Probe the following pins on the A-A1J2 card:
- Probe each pin at least 10 seconds.

Up Light: On Down Light: On

(Step 001 continues)

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MAP DESCRIPTION:

This MAP checks the twinaxial interface hardware inside the system unit for port 1.

START CONDITIONS:

MAP 7080 has been used or the work station MDIs have been run.

FRUs PARTIALLY TESTED:

A-A1J2 (work station adapter card). A-A1V4 cable A-A1 board

5360 Systems Unit

PAGE 2 OF 7

(Step 001 continued) A-A1J2Y03 (receive data 1) Y31 (select driver 1). Are the lights correct?

Y N

002 Bad card: A-A1J2 (work station adapter card). - Replug cable.

003

- Place the 'latch' switch on the logic probe to the 'none' position.

- Select mode 6.

- Press the Power key (power off).
- Connect the A-A1V4 cable.

- Measure the resistance between A-A1J2S03 (port 1 phase B) and A-A1J2U05 (port 1 phase A).

Is the resistance between 45 and 65 ohms?

Y N

004

- Measure the resistance between A-A1J2S03 (port 1 phase B) and A-A1J2U05 (port 1 phase A).
- Is the resistance greater than 65 ohms?
- Y N

005

- Disconnect the twinaxial cable from cable tower port 1.

- Measure the resistance between A-A1J2S03 (port 1 phase B) and A-A1J2U05 (port 1 phase A)

Is the resistance between 100 and 130 ohms? N

MAP 7071-2 006 - Disconnect the A-A1V4 cable. - Measure the resistance between A-A1J2S03 (port 1 phase B) and A-A1J2U05 (port 1 phase A). Is the resistance between 100 and 130 ohms? Y N 007 - Remove the A-A1J2 (work station adapter card). - Measure the resistance between A-A1J2S03 (port 1 phase B) and A-A1J2D08 (ground). Is the resistance less than 130 ohms? Y N 008 - Measure the resistance between A-A1J2U05 (port 1 phase A) and A-A1J2D08 (ground). Is the resistance less than 130 ohms? Ν 009 - Measure the resistance between A-A1J2S03 (port 1 phase B) and A-A1J2U05 (port 1 phase A).

> Is the resistance less than 130 ohms? Ν

010

D

There is a short on the work station adapter card. Bad card: A-A1J2 (work station adapter card). - Reinstall all the cards and cables.

011

33

There is a short between phase B and phase A on the A-A1 board. Bad board: A-A1. - Reinstall all the cards and cables.

5360 Systems Unit

PAGE 3 OF 7

012

BCEFG 22222

> There is a short between phase A and ground on the A-A1 board. Bad board:

A-A1.

- Reinstall all the cards and cables.

013

There is a short between phase B and ground on the A-A1 board. Bad board: A-A1. - Reinstall all the cards and cables.

014

There is a short in the A-A1V4 cable. Bad cable: A-A1V4.

015

(Entry Point BB)

There is a problem in the twinaxial cable. You will be sent to the twinaxial cable MDI map. To run the twinaxial cable MDI map:

- Press the Power key (power on).
- Insert the DIAG21 diskette.
- Select mode E.
- Press the Load key.

The system will run for approximately 2 minutes and then display a menu on the console.

- Select the MDI MAPs option. The system will display a second menu on the console.
- Select the System Console option. The system will display more instructions on the console. Follow those instructions to run the twinaxial cable MDI map.

016

Y N

4

- Remove the A-A1J2 (work station adapter card).
- Measure the resistance between A-A1J2S03 (port 1 phase B) and A-A1J2U05 (port 1 phase A).

Is the resistance between 100 and 130 ohms?

5360 Systems Unit

PAGE 4 OF 7

017

J 3

- Measure the resistance between A-A1V4B04 (port 1 phase B) and A-A1V4D04 (port 1 phase A).

Is the resistance between 100 and 130 ohms?

ΥN

018

- Reinstall the A-A1J2 (work station adapter card).
- Disconnect the cable from cable tower port 1.
- Measure the resistance between phase B and phase A of connector cable tower port 1 (see figure).



Connector cable tower (end view) port 1

Is the resistance greater than 130 ohms? Y N

019

There is an open in the twinaxial cable.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

020

5 K There is an open in the A-A1V4 cable. Bad cable: A-A1V4.

- Reinstall all the cards and cables.

15Feb84 PN 2596183 EC 826487 PEC 826380 MAP 7071-4

MAP 7071-4

5360 Systems Unit

PAGE 5 OF 7

021

A H K 2 3 4

There is an open in the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

022

There is an open on the work station adapter card. Bad card: A-A1J2.

- Reinstall all the cards and cables.

023

- Remove the A-A1J2 (work station adapter card).

- Measure the resistance between A-A1J2S03 (port 1 phase B) and A-A1J2D08 (ground).

Is the resistance between 45 and 65 ohms?

Y N

024

There is an open in the ground shield of the twinaxial cable.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

15Feb84 PN 2596183 EC 826487 PEC 826380 MAP 7071-5

6

Twinaxial Port 1 5360 Systems Unit PAGE 6 OF 7

L 5

- Disconnect the twinaxial cable from cable tower port 1.

- Measure the resistance between A-A1J2S03 (port 1 phase B) and phase B of connector cable tower port 1 (see figure).

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Connector	cable t port	ower 1	(end v	iew)	

Is the resistance less than 10 ohms?

Y N 026 Phase B and phase A are crossed in the A-A1V4 cable. Bad cable:

A-A1V4.

- Reinstall all the cards and cables.

027

The twinaxial interface hardware inside the system is working properly. phase B and phase A of the twinaxial cable may be crossed.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

⁰²⁵

5360 Systems Unit

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028

(Entry Point CC)

Note: Every resistance measurement must be made with power off.

- Set the meter to ohms X 10.

- Measure the resistance between A-A1J2S03 (port 1 phase B) and A-A1J2U05 (port 1 phase A).

Is the resistance less than 45 ohms?

ΥN

029 Bad card:

A-A1J2.

030

You should not have come to this step. Go to the beginning of this MAP and diagnose the problem again.

Go to Page 1, Step 001, Entry Point AA.

Twinaxial Interface Port 2

5360 Systems Unit

PAGE 1 OF 7

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202	сс	7	028

001

(Entry Point AA)

Note: The system and all devices must be powered off when measuring resistance on a particular twinax cable.

- Select mode 6.
- Press the Power key (power off).
- Disconnect the A-A1V4 cable.
- Press the Power key (power on).
- Loop on the Driver and Receiver test (TC23F).
- Insert diskette DIAG21.
- Select mode E.
- Enter F1C2.
- Press the Load key.

The system will run for approximately 1 minute and then halt with b421 in the display.

- Enter C23F.

- Press the CSP Start key.

The system will loop on the test.

- Note: The logic probe must be reset before each pin is probed by placing the latch switch in the 'none' position and then back to the desired position.
- Place the 'latch' switch on the logic probe to the 'up' position.
- Probe the following pins on the A-A1J2 card:
- Probe each pin at least 10 seconds.

Up Light: On Down Light: On

(Step 001 continues)

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MAP DESCRIPTION:

This MAP checks the twinaxial interface hardware inside the system unit for port 2.

START CONDITIONS:

MAP 7080 has been used or the work station MDIs have been run.

FRUs PARTIALLY TESTED:

A-A1J2 (work station adapter card) A-A1V4 cable A-A1 board

5360 Systems Unit

PAGE 2 OF 7

(Step 001 continued) A-A1J2Y24 (select driver 2) Y28 (receive data 2). Are the lights correct?

Y N

002

Bad card: A-A1J2 (work station adapter card). - Replug cable.

003

- Place the 'latch' switch on the logic probe to the 'none' position.
- Select mode 6.
- Press the Power key (power off).
- Connect the A-A1V4 cable.
- Measure the resistance between A-A1J2S04 (port 2 phase B) and A-A1J2U06 (port 2 phase A).

Is the resistance between 45 and 65 ohms? Y N

004

```
- Measure the resistance between A-A1J2S04 (port
 2 phase B) and A-A1J2U06 (port 2 phase A).
```

- Is the resistance greater than 65 ohms?
- Y N

005

- Disconnect the twinaxial cable from cable tower port 2.

- Measure the resistance between A-A1J2S04 (port 2 phase B) and A-A1J2U06 (port 2 phase A).

Is the resistance between 100 and 130 ohms? N

006

D

- Disconnect the A-A1V4 cable.

- Measure the resistance between A-A1J2S04 (port 2 phase B) and A-A1J2U06 (port 2 phase A).

```
Is the resistance between 100 and 130 ohms?
```

Y N

007

- Remove the A-A1J2 (work station adapter card).
- Measure the resistance between A-A1J2S04 (port 2 phase B) and A-A1J2D08 (ground).

Is the resistance less than 130 ohms?

N

008

- Measure the resistance between A-A1J2U06 (port 2 phase A) and A-A1J2D08 (ground). Is the resistance less than 130 ohms?

YN

009

- Measure the resistance between A-A1J2S04 (port 2 phase B) and A-A1J2U06 (port 2 phase A).

Is the resistance less than 130 ohms? Y N

010

There is a short on the work station adapter card. Bad card:

A-A1J2 (work station adapter card).

- Reinstall all the cards and cables.

011

There is a short between phase B and phase A on the A-A1 board. Bad board:

A-A1.

333 EFG

- Reinstall all the cards and cables.

15Feb84	PN 2596184
EC 826487	PEC 826380
	MAP 7072-2

33' BCD

5360 Systems Unit

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012

BCEFG 22222

> There is a short between phase A and ground on the A-A1 board. Bad board:

A-A1.

- Reinstall all the cards and cables.

013

There is a short between phase B and ground on the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

014

There is a short in the A-A1V4 cable. Bad cable: A-A1V4.

- Reinstall all the cards and cables.

015

(Entry Point BB)

There is a problem in the twinaxial cable. You will be sent to the twinaxial cable MDI map. To run the twinaxial cable MDI map:

- Insert the DIAG21 diskette.
- Select mode E.
- Press the Load key.

The system will run for approximately 2 minutes and then display a menu on the console.

- Select the MDI MAPs option. The system will display a second menu on the console.
- Select the System Console option. The system will display more instructions on the console. Follow those instructions to run the twinaxial cable MDI map.

016

Y N

- Remove the A-A1J2 (work station adapter card).

- Measure the resistance between A-A1J2S04 (port 2 phase B) and A-A1J2U06 (port 2 phase A).

Is the resistance between 100 and 130 ohms?

5 4 H J

5360 Systems Unit

PAGE 4 OF 7

017

J 3

- Measure the resistance between A-A1V4B05 (port 2 phase B) and A-A1V4D05 (port 2 phase A).

Is the resistance between 100 and 130 ohms?

Y N

018

- Reinstall the A-A1J2 (work station adapter card).
- Disconnect the cable from cable tower port 2.
- Measure the resistance between phase B and phase A of connector cable tower port 2 (see figure).

MAP 7072-4

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Connector	cable	tower	(end v	iev	N)

port 2

Is the resistance greater than 130 ohms? Y N

019

There is an open in the twinaxial cable.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

020

There is an open in the A-A1V4 cable. Bad cable: A-A1V4.

- Reinstall all the cards and cables.

15Feb84 PN 2596184 EC 826487 PEC 826380 MAP 7072-4

5 K

5360 Systems Unit

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021

A H K 2 3 4

> There is an open in the A-A1 board. Bad board:

A-A1.

- Reinstall all the cards and cables.

022

There is an open on the work station adapter card. Bad card:

A-A1J2.

- Reinstall all the cards and cables.

023

- Remove the A-A1J2 (work station adapter card).

- Measure the resistance between A-A1J2S04 (port 2 phase B) and A-A1J2D08 (ground).

Is the resistance between 45 and 65 ohms?

ΥN

6 L

024

There is an open in the ground shield of the twinaxial cable.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

5360 Systems Unit

PAGE 6 OF 7

L 5

- Disconnect the twinaxial cable from cable tower port 2.
- Measure the resistance between A-A1J2S04 (port 2 phase B) and phase B of connector cable tower port 2 (see figure).

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Connector	cable to	ower	(end	vi	ew)

port 2

Is the resistance less than 10 ohms?

Y N 026

Phase B and Phase A are crossed in the A-A1V4 cable.

Bad cable:

A-A1V4.

- Reinstall all the cards and cables.

027

The twinaxial interface hardware inside the system is working properly. Phase B and phase A of the twinaxial cable may be crossed.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

PEC 826380 MAP 7072-6

EC 826487

⁰²⁵

5360 Systems Unit

PAGE 7 OF 7

028

(Entry Point CC)

Note: Every resistance measurement must be made with power off.

- Set the meter to ohms X 10.

- Measure the resistance between A-A1J2S04 (port 2 phase B) and A-A1J2U06 (port 2 phase A).

Is the resistance less than 45 ohms?

Y N

029 Bad card: A-A1J2.

030

You should not have come to this step. Go to the beginning of this MAP and diagnose the problem again.

Go to Page 1, Step 001, Entry Point AA.

Twinaxial Interface Port 3

5360 Systems Unit

PAGE 1 OF 7

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202	СС	7	028

001

(Entry Point AA)

- Note: The system and all devices must be powered off when measuring resistance on a particular twinax cable.
- Select mode 6.
- Press the Power key (power off).
- Disconnect the A-A1V4 cable.
- Press the Power key (power on).
- Loop on the Driver and Receiver test (TC23F).
- Insert diskette DIAG21.
- Select mode E.
- Enter F1C2.
- Press the Load key.
- The system will run for approximately 1 minute and then halt with b421 in the display.
- Enter C23F.

- Press the CSP Start key.

The system will loop on the test.

- Note: The logic probe must be reset before each pin is probed by placing the latch switch in the 'none' position and then back to the desired position.
- Place the 'latch' switch on the logic probe to the 'up' position.
- Probe the following pins on the A-A1J2 card:
- Probe each pin at least 10 seconds.

Up Light: On Down Light: On (Step 001 continues)

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MAP DESCRIPTION:

This MAP checks the twinaxial interface hardware inside the system unit for port 3.

START CONDITIONS:

MAP 7080 has been used or the work station MDIs have been run.

FRUs PARTIALLY TESTED:

A-A1J2 (work station adapter card) A-A1V4 cable A-A1 board

5360 Systems Unit

PAGE 2 OF 7

```
(Step 001 continued)
```

A-A1J2Y27 (receive data 3) Y29 (select driver 3).

Are the lights correct?

ΥN

002

Bad card:

A-A1J2 (work station adapter card). - Reinstall all the cards and cables.

I 003

- Place the 'latch' switch on the logic probe to the 'none' position.

-	Se	lect	mode	6.
---	----	------	------	----

- Press the Power key (power off).
- Connect the A-A1V4 cable.
- Measure the resistance between A-A1J2S07 (port 3 phase B) and A-A1J2U07 (port 3 phase A).

Is the resistance between 45 and 65 ohms?

/ N

004

- Measure the resistance between A-A1J2S07 (port 3 phase B) and A-A1J2U07 (port 3 phase A).
- Is the resistance greater than 65 ohms?

ΥN

005

- Disconnect the twinaxial cable from cable tower port 3.
- Measure the resistance between A-A1J2S07 (port 3 phase B) and A-A1J2U07 (port 3 phase A).
- Is the resistance between 100 and 130 ohms? Y $\,N$

006

D

- Disconnect the A-A1V4 cable.

- Measure the resistance between A-A1J2S07 (port 3 phase B) and A-A1J2U07 (port 3 phase A).

```
Is the resistance between 100 and 130 ohms?
```

ΥN

007

- Remove the A-A1J2 (work station adapter card).
- Measure the resistance between A-A1J2S07 (port 3 phase B) and A-A1J2D08 (ground).
- Is the resistance less than 130 ohms?

ΥN

008

- Measure the resistance between A-A1J2U07 (port 3 phase A) and A-A1J2D08 (ground).

Is the resistance less than 130 ohms?

ΥN

009

- Measure the resistance between A-A1J2S07 (port 3 phase B) and A-A1J2U07 (port 3 phase A).
- Is the resistance less than 130 ohms? Y $\,N$

010

There is a short on the work station adapter card. Bad card:

A-A1J2 (work station adapter card).

- Reinstall all the cards and cables.

011

There is a short between phase B and phase A on the A-A1 board. Bad board: A-A1. - Reinstall all the cards and cables.

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7	ž	~
в	-C	D
-	•	-

5 A 3 3 3 E F G

15Feb84	PN 2596185
EC 826487	PEC 826380
	MAP 7073-2

5360 Systems Unit

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012

There is a short between phase A and ground on the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

013

There is a short between phase B and ground on the A-A1 board. Bad board:

A-A1.

- Reinstall all the cards and cables.

014

There is a short in the A-A1V4 cable. Bad cable: A-A1V4.

- Reinstall all the cards and cables.

015

(Entry Point BB)

There is a problem in the twinaxial cable. You will be sent to the twinaxial cable MDI map. To run the twinaxial cable MDI map:

- Press the Power key (power on).

- Insert the DIAG21 diskette.
- Select mode E.
- Press the Load key.

The system will run for approximately 2 minutes and then display a menu on the console.

- Select the MDI MAPs option. The system will display a second menu on the console.
- Select the System Console option. The system will display more instructions on the console. Follow those instructions to run the twinaxial cable MDI map.

5360 Systems Unit

PAGE 4 OF 7

016

В 2

- Remove the A-A1J2 (work station adapter card).

- Measure the resistance between A-A1J2S07 (port 3 phase B) and A-A1J2U07 (port 3 phase A).

- Is the resistance between 100 and 130 ohms?
- ΥN

017

Measure the resistance between A-A1V4B07 (port 3 phase B) and A-A1V4D07 (port 3 phase A).
Is the resistance between 100 and 130 ohms?
Y N

018

- Reinstall the A1J2 (work station adapter card).
- Disconnect the cable from cable tower port 3.
 Measure the resistance between phase B and phase A of connector cable tower port 3 (see figure).

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* ***	*** *
* Phase B	Phase A *
*	*
*	*
* *	**
**	* *
* * *	***
***** LOCAT *******	OR ***** ****
Connector cable to port 3	wer (end view)

Is the resistance greater than 130 ohms? Y N

019

There is an open in the twinaxil cable.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

 15Feb84
 PN 2596185

 EC 826487
 PEC 826380

555 HJK

MAP 7073-4

A H J K 2 4 4 4

Twinaxial Port 3

5360 Systems Unit

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Ó20

There is an open in the A-A1V4 cable. Bad cable:

A-A1V4.

- Reinstall all the cards and cables.

021

There is an open in the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

022

There is an open on the work station adapter card. Bad card:

A-A1J2.

- Reinstall all the cards and cables.

023

- Remove the A-A1J2 (work station adapter card).

- Measure the resistance between A-A1J2S07 (port 3 phase B) and A-A1J2D08 (ground).

Is the resistance between 45 and 65 ohms?

Ϋ́Ν

6 L

024

There is an open in the ground shield of the twinaxial cable.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

5360 Systems Unit

PAGE 6 OF 7

025

L 5

- Disconnect the twinaxial cable from cable tower port 3.
- Measure the resistance between A-A1J2S07 (port 3 phase B) and phase B of connector cable tower port 3 (see figure).

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* ***		***	*	
* Phase B		Phase A	* *	
*				
*			*	
**			**	
**			**	
***		*:	**	
****** LOCATOR ****** ************				
Connector	cable tower port 3	(end view	w).	

Is the resistance less than 10 ohms?

ΥN

026 Phase B and phase A are crossed in the A-A1V4 cable. Bad cable: A-A1V4.

.....

027

The twinaxial interface hardware inside the system is working properly. Phase B and phase A of the twinaxial cable may be crossed.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

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EC 826487	PEC 826380
	MAP 7073-6

5360 Systems Unit

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028

(Entry Point CC)

Note: Every resistance measurement must be made with power off.

- Set the meter to ohms X 10.

- Measure the resistance between A-A1J2S07 (port 3 phase B) and A-A1J2U07 (port 3 phase A).

Is the resistance less than 45 ohms?

YN

029 Bad card: A-A1J2.

030

You should not have come to this step. Go to the beginning of this MAP and diagnose the problem again.

Go to Page 1, Step 001, Entry Point AA.

Twinaxial Interface Port 4

5360 Systems Unit

PAGE 1 OF 7

ENTRY POINTS

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202	СС	7	028

001

(Entry Point AA)

- Note: The system and all devices must be powered off when measuring resistance on a particular twinax cable.
- Select mode 6.
- Press the Power key (power off).
- Disconnect the A-A1V4 cable.
- Press the Power key (power on).
- Loop on the Driver and Receiver test (TC23F).
- Insert diskette DIAG21.
- Select mode E.
- Enter F1C2.
- Press the Load key.

The system will run for approximately 1 minute and then halt with b421 in the display.

- Enter C23F.

- Press the CSP Start key.

The system will loop on the test.

- Note: The logic probe must be reset before each pin is probed by placing the latch switch in the 'none' position and then back to the desired position.
- Place the 'latch' switch on the logic probe to the 'up' position.
- Probe the following pins the A-A1J2 card:
- Probe each pin at least 10 seconds.

Up Light: On Down Light: On (Step 001 continues)

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MAP DESCRIPTION:

This MAP checks the twinaxial interface hardware inside the system unit for port 4.

START CONDITIONS:

MAP 7080 has been used or the work station MDIs have bee run.

FRUs PARTIALLY TESTED:

A-A1J2 (work station adapter card) A-A1V4 cable A-A1 board

> 15Feb84 PN 2596186 EC 826487 PEC 826380 MAP 7074-1

MAP 7074-1

5360 Systems Unit

PAGE 2 OF 7

(Step 001 continued)

A-A1J2Y07 (select driver 4) Y26 (receive data 4).

Are the lights correct?

(N

002

Bad card:

A-A1J2 (work station adapter card).

- Reinstall all the cards and cables.

003

- Place the 'latch' switch on the logic probe to the 'none' position.

- Select mode 6.
- Press the Power key (power off).
- Connect the A-A1V4 cable.
- Measure the resistance between A-A1J2S10 (port 4 phase B) and A-A1J2U09 (port 4 phase A).

Is the resistance between 45 and 65 ohms?

ΥN

004

- Measure the resistance between A-A1J2S10 (port 4 phase B) and A-A1J2U09 (port 5 phase A).
- Is the resistance greater than 65 ohms?

ΥN

005

3 ' C D

- Disconnect the twinaxial cable from cable tower port 4.
- Measure the resistance between A-A1J2S10 (port 4 phase B) and A-A1J2U09 (port 4 phase A).

Is the resistance between 100 and 130 ohms? Y $\,N$

ÖO6

D

- Disconnect the A-A1V4 cable.
- Measure the resistance between A-A1J2S10 (port 4 phase B) and A-A1J2U09 (port 4 phase A).

```
Is the resistance between 100 and 130 ohms? Y \,N
```

007

- Remove the A-A1J2 (work station adapter card).
- Measure the resistance between A-A1J2S10 (port 4 phase B) and A-A1J2D08 (ground).
- Is the resistance less than 130 ohms?

Y N

800

- Measure the resistance between A-A1J2U09 (port 4 phase A) and A-A1J2D08 (ground).

Is the resistance less than 130 ohms?

N

009

- Measure the resistance between A-A1J2S10 (port 4 phase B) and A-A1J2U09 (port 4 phase A).
- Is the resistance less than 130 ohms? Y $\,N\,$

010

There is a short on the work station adapter card.

Bad card:

A-A1J2 (work station adapter card).

- Reinstall all the cards and cables.

011

There is a short between phase B and phase A on the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

2 3 3 E F G	15Feb84	PN 2596186
	EC 826487	PEC 826380
		MAP 7074-2
C E F G 2 2 2 2

5360 Systems Unit

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Ó12

There is a short between phase A and ground on the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

013

There is a short between phase B and ground on the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

014

There is a short in the A-A1V4 cable. Bad cable: A-A1V4.

- Reinstall all the cards and cables.

015

(Entry Point BB)

There is a problem in the twinaxial cable. You will be sent to the twinaxial cable MDI map. To run the twinaxial cable MDI map:

- Press the Power key (power on).
- Insert the DIAG21 diskette.
- Select mode E.
- Press the Load key.

The system will run for approximately 2 minutes and then display a menu on the console.

- Select the MDI MAPs option. The system will display a second menu on the console.
- Select the System Console option. The system will display more instructions on the console. Follow those instructions to run the twinaxial cable MDI map.

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EC 826487	PEC 826380
	MAP 7074-3

5360 Systems Unit

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016

B 2

- Remove the A-A1J2 (work station adapter card).

- Measure the resistance between A-A1J2S10 (port 4 phase B) and A-A1J2U09 (port 4 phase A).

Is the resistance between 100 and 130 ohms?

ΥN

017

- Measure the resistance between A-A1V4B09 (port 4 phase B) and A-A1V4D09 (port 4 phase A). Is the resistance between 100 and 130 ohms?

Y N

018

- Reinstall the A1J2 (work station adapter card).
- Disconnect the cable from cable tower port 4.
 Measure the resistance between phase B and phase A of connector cable tower port 4 (see figure).

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* Phase B		Phase	Δ *
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**			**
***			***
****** ***	L0CAT	OR ****	***
Connector	cable to port 4	wer (end vi	iew)

******

ماد باد باد باد باد با

******

بلد بلد بالد بالد بالد

Is the resistance greater than 130 ohms? Y  $\,N$ 

#### 019

- There is an open in the twinaxial cable.
- Run the twin-ax cable softmap.
- Reinstall all the cards and cables.
- Go to Page 3, Step 015, Entry Point BB.

MAP 7074-4

15Feb84 PN 2596186 EC 826487 PEC 826380 MAP 7074-4

555 HJK

#### A H J K 2 4 4 4

# Twinaxial Port 4

5360 Systems Unit

PAGE 5 OF 7

# **Ó20**

There is an open in the A-A1V4 cable. Bad cable: A-A1V4.

- Reinstall all the cards and cables.

# 021

There is an open in the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

### 022

There is an open on the work station adapter card. Bad card:

A-A1J2.

- Reinstall all the cards and cables.

# 023

- Remove the A-A1J2 (work station adapter card).

- Measure the resistance between A-A1J2S10 (port 4 phase B) and A-A1J2D08 (ground).

Is the resistance between 45 and 65 ohms?

# ΥN

### 024

There is an open in the ground shield of the twinaxial cable.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

15Feb84 PN 2596186 EC 826487 PEC 826380 MAP 7074-5

6

# Twinaxial Port 4 5360 Systems Unit

PAGE 6 OF 7

L 5

- Disconnect the twinaxial cable from cable tower port 4.
- Measure the resistance between A-A1J2S10 (port 4 phase B) and phase B of connector cable tower port 4 (see figure).

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* Phase B			Phase	Α	*
*					*
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**					**
***				**	×
*****	LOC	ATOR	***	***	
**:	******	*****	*****		
Connector	cable	tower	(end v	iew	)

port 4

### Is the resistance less than 10 ohms?

N 026 Phase B and phase A are crossed in the A-A1V4 cable. Bad cable: A-A1V4.

027

The twinaxial interface hardware inside the system is working properly. Phase B and phase A of the twinaxial cable may be crossed.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

15Feb84 PN 2596186 EC 826487 PEC 826380 MAP 7074-6

⁰²⁵ 

# 5360 Systems Unit

# PAGE 7 OF 7

028

(Entry Point CC)

Note: Every resistance measurement must be made with power off.

- Set the meter to ohms X 10.

- Measure the resistance between A-A1J2S10 (port 4 phase B) and A-A1J2U09 (port 4 phase A).

Is the resistance less than 45 ohms?

Y N

029 Bad card: A-A1J2.

#### 030

You should not have come to this step. Go to the beginning of this MAP and diagnose the problem again.

Go to Page 1, Step 001, Entry Point AA.

15Feb84	PN 2596186
EC 826487	PEC 826380
	MAP 7074-7

# **Twinaxial Interface Port 5**

# 5360 Systems Unit

PAGE 1 OF 7

# **ENTRY POINTS**

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
C202	СС	7	028

# 001

# (Entry Point AA)

- Note: The system and all devices must be powered off when measuring resistance on a particular twinax cable.
- Select mode 6.
- Press the Power key (power off).
- Disconnect the A-A1V4 cable.
- Press the Power key (power on).
- Loop on the Driver and Receiver test (TC23F).
- Insert diskette DIAG21.
- Select mode E.
- Enter F1C2.
- Press the Load key.

The system will run for approximately 1 minute and then halt with b421 in the display.

- Enter C23F.

- Press the CSP Start key.

The system will loop on the test.

- Note: The logic probe must be reset before each pin is probed by placing the latch switch in the 'none' position and then back to the desired position.
- Place the 'latch' switch on the logic probe to the 'up' position.
- Probe the following signals on the A1J2 card:
- Probe each pin at least 10 seconds.

Up Light: On Down Light: On (Step 001 continues)

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# **MAP DESCRIPTION:**

This MAP checks the twinaxial interface hardware inside the system unit for port 5.

# **START CONDITIONS:**

MAP 7080 has been used or the work station MDIs have been run.

#### FRUs PARTIALLY TESTED:

A-A1J2 (work station adapter card) A-A1V4 cable A-A1 board

15Feb84 PN 2596187 EC 826487 PEC 826380 MAP 7075-1

# 5360 Systems Unit

PAGE 2 OF 7

(Step 001 continued)

A-A1J2Y08 (select driver 5) Y25 (receive data 5).

# Are the lights correct?

ΥN

# 002

Bad card:

A-A1J2 (work station adapter card). - Reinstall all the cards and cables.

# 003

- Place the 'latch' switch on the logic probe to the 'none' position.
- Select mode 6.
- Press the Power key (power off).
- Connect the A-A1V4 cable.
- Measure the resistance between A-A1J2S12 (port 5 phase B) and A-A1J2U10 (port 5 phase A).

Is the resistance between 45 and 65 ohms?

```
Ϋ́Ν
```

# 004

- Measure the resistance between A-A1J2S12 (port 5 phase B) and A-A1J2U10 (port 5 phase A).
- Is the resistance greater than 65 ohms?

# YN

# 005

33' BCD

- Disconnect the twinaxial cable from cable tower port 5.
- Measure the resistance between A-A1J2S12 (port 5 phase B) and A-A1J2U10 (port 5 phase A).
- Is the resistance between 100 and 130 ohms? Y  $\,N$

MAP 7075-2

# 006

D

- Disconnect the A-A1V4 cable.

- Measure the resistance between A-A1J2S12 (port 5 phase B) and A-A1J2U10 (port 5 phase A).

```
Is the resistance between 100 and 130 ohms? Y \,N
```

# 007

- Remove the A-A1J2 (work station adapter card).
- Measure the resistance between A-A1J2S12 (port 5 phase B) and A-A1J2D08 (ground).

Is the resistance less than 130 ohms?

# N

v

008
Measure the resistance between A-A1J2U10 (port 5 phase A) and A-A1J2D08 (ground).

# Is the resistance less than 130 ohms?

# ΥN

# 009

- Measure the resistance between A-A1J2S12 (port 5 phase B) and A-A1J2U10 (port 5 phase A).
- Is the resistance less than 130 ohms? Y  $\,N$

# 010

There is a short on the work station adapter card. Bad card:

A-A1J2 (work station adapter card).

- Reinstall all the cards and cables.

# 011

333 FFG There is a short between phase B and phase A on the A-A1 board. Bad board: A-A1. - Reinstall all the cards and cables.

15Feb84	PN 2596187
EC 826487	PEC 826380
	MAP 7075-2

# 5360 Systems Unit

PAGE 3 OF 7

# 012

BCEFG 22222

> There is a short between phase A and ground on the A-A1 board. Bad board:

A-A1.

- Reinstall all the cards and cables.

# 013

There is a short between phase B and ground on the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

### 014

There is a short in the A-A1V4 cable. Bad cable: A-A1V4.

# 015

#### (Entry Point BB)

There is a problem in the twinaxial cable. You will be sent to the twinaxial cable MDI map. To run the twinaxial cable MDI map:

- Press the Power key (power on).
- Insert the DIAG21 diskette.
- Select mode E.
- Press the Load key.

The system will run for approximately 2 minutes and then display a menu on the console.

- Select the MDI MAPs option. The system will display a second menu on the console.
- Select the System Console option. The system will display more instructions on the console. Follow those instructions to run the twinaxial cable MDI map.

#### 016

N

- Remove the A-A1J2 (work station adapter card).
- Measure the resistance between A-A1J2S12 (port 5 phase B) and A-A1J2U10 (port 5 phase A).

Is the resistance between 100 and 130 ohms?

15Feb84 PN 2596187 EC 826487 PEC 826380 MAP 7075-3

# 5360 Systems Unit

PAGE 4 OF 7

**Ö**17

- Measure the resistance between A-A1V4B10 (port 5 phase B) and A-A1V4D10 (port 5 phase A).

# Is the resistance between 100 and 130 ohms?

### ΥN

#### 018

- Reinstall the A-A1J2 (work station adapter card).
- Disconnect the cable from cable tower port 5.
- Measure the resistance between phase B and phase A of connector cable tower port 5 (see figure).



port 5

Is the resistance greater than 130 ohms? Y N  $\,$ 

#### 019

There is an open in the twinaxial cable.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

#### 020

There is an open in the A-A1V4 cable. Bad cable: A-A1V4.

- Reinstall all the cards and cables.

15Feb84 PN 2596187 EC 826487 PEC 826380 MAP 7075-4

5 K

# MAP 7075-5

# Twinaxial Port 5

# 5360 Systems Unit

PAGE 5 OF 7

# 021

A H K 2 3 4

> There is an open in the A-A1 board. Bad board: A-A1.

- Reinstall all the cards and cables.

# 022

There is an open on the work station adapter card. Bad card: A-A1J2.

- Reinstall all the cards and cables.

# 023

- Remove the A-A1J2 (work station adapter card).

- Measure the resistance between A-A1J2S12 (port 5 phase B) and A-A1J2D08 (ground).

Is the resistance between 45 and 65 ohms?

# ΥN

6

# 024

There is an open in the ground shield of the twinaxial cable.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

15Feb84 PN 2596187 EC 826487 PEC 826380 MAP 7075-5

# Twinaxial Port 5 5360 Systems Unit

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L 5

- Disconnect the twinaxial cable from cable tower port 5.

- Measure the resistance between A-A1J2S12 (port 5 phase B) and phase B of connector cable tower port 5 (see figure).

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* ***			**:	k	*
* Phase B			Phase	Α	*
*				•••	*
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**					**
**					**
***				**	**
***** **	LOCA ******	TOR	***: ****	***	ł
Connector	cable t port	ower 5	(end v	iev	v)

Is the resistance less than 10 ohms?

ΥN

026 Phase B and phase A are crossed in the A-A1V4 cable. Bad cable: A-A1V4.

027

The twinaxial interface hardware inside the system is working properly. Phase B and Phase A of the twinaxial cable may be crossed.

- Run the twin-ax cable softmap.

- Reinstall all the cards and cables.

Go to Page 3, Step 015, Entry Point BB.

15Feb84 PN 2596187 EC 826487 PEC 826380 MAP 7075-6

⁰²⁵ 

# 5360 Systems Unit

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# 028

(Entry Point CC)

Note: Every resistance measurement must be made with power off.

- Set the meter to ohms X 1.

- Measure the resistance between A-A1J2S12 (port 5 phase B) and A-A1J2U10 (port 5 phase A).

# Is the resistance less than 45 ohms?

ΥN

029 Bad card: A-A1J2.

030

You should not have come to this step. Go to the beginning of this MAP and diagnose the problem again.

Go to Page 1, Step 001, Entry Point AA.

15Feb84 PN EC 826487 PE

PN 2596187 PEC 826380 MAP 7075-7

# **Network Analysis MAP**

## 5360 Systems Unit

PAGE 1 OF 6

# **ENTRY POINTS**

FROM	ENTER	THIS MAP	
MAP	ENTRY	PAGE	STEP
NUMBER	POINT	NUMBER	NUMBER
7001	AA	1	001
7099	AA	1	001

# 001

#### (Entry Point AA)

The network analysis program uses the system console to display results.

# EXIT POINTS

EXIT THIS MAP		то		
PAGE	STEP	MAP	ENTRY	
NUMBER	NUMBER	NUMBER	POINT	
3	004	7001	A	
1	002	7001	AA	

#### MAP DESCRIPTION:

This MAP will aid you in correcting problems with work stations that are not the system console. You will be instructed on how to run the network analysis program and on how to use the results from that program.

START CONDITIONS: MAP 7001 has been used.

FRUS PARTIALLY TESTED:

A-A1J2 (work station adapter card) A-A1V4 cable A-A1 board twinaxial cables work stations

Has the system displayed information on the system console?

ΥN

#### 002

The console must work properly before the network analysis program may be used. **Go To Map 7001, Entry Point AA.** 

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15Feb84 PN 2596188 EC 826487 PEC 826380 MAP 7080-1

2 A

# Network Analysis MAP 5360 Systems Unit PAGE 2 OF 6

#### 003

A 1

The network analysis program will display a matrix on the system console. Along the horizontal axis of the matrix will be all the possible cable and station addresses of the local work stations. Along the vertical axis will be the various conditions that can be sensed at the work stations.

When a condition is sensed at a work station, an X is placed at the intersection of the work station address and the appropriate condition.

 To receive an accurate picture of the work station status, power on all system work stations/printers.
 Ref to MIM 01-535 (test request menu 3) and 01-544 (displaying configuration data) for procedures to display the system configurations.

The correct response for a work station display is the single frame condition. A work station printer should respond with the single frame condition for the first sense and the multi-frame condition after that. No response is the correct condition for an address where there is no work station.

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# **Network Analysis MAP**

#### 5360 Systems Unit

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(Step 003 continued)

To run the network analysis program: - Insert the DIAG21 diskette. - Select mode F. - Enter F1C2. - Press the Load key on the control panel. The system will run for approximately 1 minute and then stop with b421 in the display. The DIAG21 diskette will be ejected when the system stops if the system has a 72MD Diskette attachment. - Enter C245. - Press the CSP Start key on the control panel. The system will start displaying a status matrix on the console after approximately 30 seconds. See the example below. Cable address 0 1 2 3 4 5 Station address 0123456 0123456 0123456 0123456 0123456 0123456 Single frame Х ХХ Х ХХ X Multi-frame Х No response XXXXXX X XXXX XXXXX XXXXXXX XXXXXX XX XX RCV buffer overrun Serial parity check Driver active check Network analysis program. Is the information matrix displayed on the system console? ΥN 004 There is a problem with the system console. Go To Map 7001, Entry Point A.

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B

**Network Analysis MAP** 

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### 005

B 3

Has the rcv buffer overrun condition been sensed at any of the addresses?

# Y N 006

Has the single frame or the multi-frame condition been sensed at an address where there is no work station?

# YN

007

Has the no response condition been sensed at an address where there is a work station? Y  $\,N$ 

# 008

Has the serial parity check condition been sensed at any of the addresses? Y N

# 009

Has the driver activity check condition been sensed at any of the addresses? Y N

# **0**10

Н

Have any of the work station displays responded with the multi-frame condition?

# Y N

# 011

Have any of the work station printers failed to respond with the multi-frame condition? Y  $\,N$ 

# 012

The Network Analysis Program has not detected any errors. The following tools are available for more analysis:

The work station verifications tests (see printer manuals).

The work station error history log (ERAP 70-500)

The work station intermittent failure replacement MAP 0370.

# 013

The work station printer is failing to execute the modeset command. Go to the work station maintenance procedures.

# 014

Work station displays should reset automatically after three seconds. Go to the display station maintenance procedures.

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6555' DEFGH

**Network Analysis MAP** Ĕ JK MAP 7080-5 5360 Systems Unit PAGE 5 OF 6 **Ö19** Either the work station adapter card is bad or there Has the serial parity check condition been is a short in one of the work station cables. You indicated on less than 3 work stations? will be sent to the work station cable MAPs. YN - Record this MAP and step number. - If the work station cable MAPs do not find the 020 problem, return to this MAP and step number. Bad card: - Go to the correct cable MAP. A-A1J2. Port 0 - MAP7070 Port 1 - MAP7071 021 Port 2 - MAP7072 You will be sent to the work station maintenance Port 3 - MAP7073 procedures. Record this MAP and step number. Port 4 - MAP7074 - If the work station maintenance procedure does Port 5 - MAP7075 not find the problem, return to this MAP and Did the work station cable MAPs find the step number. problem? - Go to the work station maintenance procedures YN of the failing work station(s). Did the work station maintenance procedures 016 find the problem? Bad card: Y N A-A1J2. 022 Bad card: You have fixed the problem. A-A1J2. 023 You will be sent to a work station twinaxial MAP to You have fixed the problem. attempt to find the problem. - Record this MAP and step number. 024 - If the work station cable MAPs do not find the You have fixed the problem. problem, return to this MAP and step number. - Go to the correct cable MAP. 025 Port 0 - MAP7070 Has the power been set to On at the work station Port 1 - MAP7071 that is not responding? Port 2 - MAP7072 YN Port 3 - MAP7073 Port 4 - MAP7074 026 Port 5 - MAP7075 - Set the power to On at that work station. Did the work station cable MAPs find the problem?

JK

Ν

F G 4

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017

018

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DMNP **Network Analysis MAP** MAP 7080-6 L 5 5360 Systems Unit PAGE 6 OF 6 029 **027** - Verify the following: You will be sent to the work station That the work station address switches are set maintenance procedures. correctly on all the work stations. - Record this MAP and step number. If the work station maintenance procedures That the terminator switch is set correctly on all the does not find the problem, return to this MAP and step number. work stations. - Go to the work station maintenance procedures for the failing work station(s). Did the work station maintenance procedures find the problem? Y N 030 Bad card: You will be sent to the work station cable MAPs to A-A1J2. attempt to find the problem. - Record this MAP and step number. 031 - If the work station cable MAPs do not find the You have fixed the problem. problem, return to this MAP and step number. - Go to the correct cable MAP. 032 Port 0 - MAP7070 Bad card: Port 1 - MAP7071 A-A1J2. Port 2 - MAP7072 Port 3 - MAP7073 033 Port 4 - MAP7074 You have fixed the problem. Port 5 - MAP7075 034 Did the work station cable MAPs find the - Verify the following: problem? That the work station cable is connected to the ΥN correct connector on the system cable tower. 028 That the station address switches are set correctly

> 035 Bad card: A-A1J2 ---or---A-A1H2.

Did 3 or more work stations respond with the no response condition?

Y N

MNP

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on the work station. See the work station manuals. That the terminator switch is set correctly on the

work station. See the work station manuals.

# Work station Subsystem Exit Point

# 5360 Systems Unit

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# **ENTRY POINTS**

FROM	ENTER	THIS MAP	
MAP NUMBER	ENTRY POINT	PAGE NUMBER	STEP NUMBER
7002	AA	1	001

001

(Entry Point AA)

# EXIT POINTS

EXIT THIS MAP		то	
PAGE NUMBER	STEP NUMBER	MAP NUMBER	ENTRY POINT
2	004	7080	AA

### MAP DESCRIPTION:

This is the no trouble found exit point from the work station subsystem MAPs. The available options are described.

# START CONDITIONS:

The work station attachment MDIs have been run and have not found a problem.

FRUs PARTIALLY TESTED: None

Is your problem with the system console?

# N

002 Is your problem with a work station other than the system console?

# Y N

**003** This is the no trouble found end of the good machine path.

The following areas have been tested:

Work station controller Work station controller storage Channel interface Serial interface External cable to system console.

The following tools are available for more analysis: (Step 003 continues)

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2 2 A B

A B Work station Subsystem	D E MAP 7099-2
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(Step 003 continued)	
Network Analysis Map (7030) Intermittent failure list (0370) Line quality test.	Is a cursor displayed on the system console screen? Y N
IF you are verifying a corrected problem, it is correct.	s <b>010</b> The system console has a problem. - Return to the terminal MAPs.
If you are attempting to diagnose a problem	,
either the problem is not in this area or more	011
above.	Y N
004 - Use the network MAPs for problems with more than one work station.	<b>012</b> The terminal diagnostic routines have found an error. Go to the terminal MAPs and perform the repair.
Go to their entry point.	
Go To Map 7080, Entry Point AA.	013
 005	Is the system console Ready light Un7
Have you used the 5250 maintenance procedures	
to run the diagnostic routines on the system	014
console?	The system console has a check.
Y N I	Go to the terminal MAPs and perform the repair.
006	015
Go to the system console and use the maintenance procedures to correct the problem.	The system console is not displaying data correctly.
007	Your options are:
Does the system console have a display on it now; Y N	<ul> <li>Return to the terminal MAPs again.</li> <li>Use another terminal as the console.</li> <li>Use the line quality test procedure to check for</li> </ul>
008	impaired cables.
- Turn the Intensity switch on the system console	
up.	U16 The repair is completed
now?	
Y N	
	• • • • • • • • • • • • • • • • • • •

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1 | | 3 C D E

# C Work station Subsystem 2 5360 Systems Unit PAGE 3 OF 3

This is the no trouble found end of the good machine path.

The following areas have been tested:

Work station controller Work station controller storage Channel interface Serial interface External cable to system console.

017

The following tools are available for more analysis:

Network Analysis Map (7080) Intermittent failure list, MAP 0370 Line quality test.

If you are verifying a correct problem, it is correct.

If you are attempting to diagnose a problem, either the problem is not in this area or more analysis is needed using the tools described above.

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