

| | | | |
|-----------|--|--|------------|
| EC 826380 | | | PN 2597099 |
| 27MAY83 | | | |

Power Entry
5360 Systems Unit

MAP 0500-1

PAGE 1 OF 5

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0101 | A | 1 | 001 |
| 0105 | A | 1 | 001 |
| 0118 | A | 1 | 001 |
| 0501 | A | 1 | 001 |
| 0502 | B | 3 | 007 |
| 0509 | A | 1 | 001 |
| 0512 | B | 3 | 007 |
| 0513 | A | 1 | 001 |
| 0515 | B | 3 | 007 |
| 0530 | B | 3 | 007 |
| 0542 | A | 1 | 001 |
| 0572 | A | 1 | 001 |
| 0582 | B | 3 | 007 |
| 0599 | A | 1 | 001 |
| 3002 | A | 1 | 001 |
| 3011 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 4 | 010 | 0502 | A |
| 5 | 023 | 0503 | A |
| 4 | 013 | 0509 | A |
| 5 | 024 | 0511 | A |
| 5 | 020 | 0576 | A |
| 3 | 005 | 0577 | A |
| 5 | 022 | 0582 | A |
| 4 | 012 | 0584 | B |
| 5 | 025 | 0584 | B |
| 4 | 015 | 0584 | B |
| 5 | 021 | 1701 | D |

001

(Entry Point A)

With the machine power off, the Power Check or the Temperature Check light may be on, but all other lights on the control panel should be off and the fans and disks should not be turning.

MAP DESCRIPTION:

This MAP determines the type of power failure.

ENTRY CONDITIONS:

Power problem, Power Check or Temperature Check or no response to the Power key or a power logic problem.

START CONDITIONS:

All

FRUs PARTIALLY TESTED:

Relay K1
 Arc suppressor

Is the machine power off?



B
1

**Power Entry
5360 Systems Unit**

MAP 0500-2

PAGE 2 OF 5

002

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

CAUTION

If the machine does not power off when you use the Power key, then it may not power off when an error occurs, and the machine may be without protection. The power off problem must be repaired first so that protection is verified or reset.

With the machine power off, the Power Check or the Temperature Check light may be on, but all other lights on the control panel should be off and the fans and disks should not be turning.

Does the machine power off?

Y N

003

- Set the Unit Emergency switch to the Power Off position (05-205).

The relay control module on the protect card may be bad.

Does the machine power off?

Y N

| | | |
|--|--|--|
| | | |
|--|--|--|

3 3 3
C D E

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MAP 0500-2

A C D E
1 2 2 2

Power Entry
5360 Systems Unit

MAP 0500-3

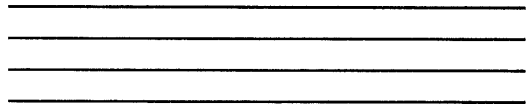
PAGE 3 OF 5

004

- Set CB1 to the Off position (05-215).
- Disconnect the line cord from the power outlet.

CAUTION

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.



- Remove the cover from the AC box (05-215).
- Relay K1 is bad
---or---
The arc suppressors are bad.

The contacts on relay K1 may be bad.

005

Go To Map 0577, Entry Point A.

006

Go to Step 007, Entry Point B.

007

(Entry Point B)

Without pressing any keys, are any of the Power Status lights on CS, UV, OC, OV/CU, 8, 4, 2, 1?

Y N

008

- Press and hold the Power Status key.

Note 1: If the CS light is on when the Power Status key is pressed, the control supply appears to be good.

Is the CS light on (see note 1)?

Y N

5 4 4
F G H

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EC 839954 PEC 826487

MAP 0500-3

G H
3 3

Power Entry
5360 Systems Unit
PAGE 4 OF 5

MAP 0500-4

009

- Press and hold the Lamp Test key.
Are any control panel lights on?

Y N

You are looking for any power existing in the machine.

010

Go To Map 0502, Entry Point A.

011

- Press and hold the Lamp Test key.
Are the Power Check and Temperature Check lights on (control panel)?

Y N

012

Go To Map 0584, Entry Point B.

013

Go To Map 0509, Entry Point A.

014

- Press and hold the Lamp Test key.

Note 2: The Power Check and Temperature Check lights must be on with lamp test before you continue in this MAP.

Are the Power Check and Temperature Check lights on (see note 2)?

Y N

015

Go To Map 0584, Entry Point B.

016

- Press the Power key (power on).
Does the machine power on and remain on?

Y N

017

Is the Power Check light on?

Y N

018

Is the Temperature Check light on?

Y N

5 5 5 5
J K L M

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EC 839954 PEC 826487
MAP 0500-4

F J K L M
3 4 4 4 4

Power Entry
5360 Systems Unit

PAGE 5 OF 5

019
Does the machine power on
momentarily?

Y N

020
Go To Map 0576, Entry Point A.

021
Go To Map 1701, Entry Point D.

022
Go To Map 0582, Entry Point A.

023
Go To Map 0503, Entry Point A.

024
Go To Map 0511, Entry Point A.

025
Go To Map 0584, Entry Point B.

Power Logic Reset

MAP 0501-1

5360 Systems Unit

PAGE 1 OF 3

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0503 | B | 3 | 010 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 2 | 006 | 0500 | A |
| 2 | 007 | 0503 | A |
| 2 | 009 | 0503 | A |
| 1 | 003 | 1701 | D |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Set CB1 to the On position (05-215) (see note 1).

MAP DESCRIPTION:

This MAP locates the source of bad information after the logic has been reset.

ENTRY CONDITIONS:

Bad information with power check.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- JC4 jumper card
- Lower maple block

Note 1: CB1 is used to reset the logic on the protect card.

Is the Power Check light on?

Y N

002

- Press and hold the Power Status key.

Is the CS light on and all other lights off?

Y N

003

Go To Map 1701, Entry Point D.

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2 2
A B

MAP 0501-1

A B
1 1

Power Logic Reset

MAP 0501-2

5360 Systems Unit

PAGE 2 OF 3

004

- Press the Power key (power on).

Does the machine power on?

Y N

005

Is the Power Check light on?

Y N

006

Go To Map 0500, Entry Point A.

007

Go To Map 0503, Entry Point A.

008

A reset is all that was needed.

009

Go To Map 0503, Entry Point A.

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MAP 0501-2

**Power Logic Reset
5360 Systems Unit**

MAP 0501-3

PAGE 3 OF 3

010

(Entry Point B)

- Press and hold the Power Status key.

Is the CS light on and all other Power Status lights off?

Y N

011

- Press and hold the Power Status key.

Are all the Power Status lights on?

Y N

012

The protect card is bad (05-220).

013

- Set CB1 to the Off position (05-215).

- Remove the protect card.

- Set the meter to measure ohms.

- Connect the meter on the lower maple block as indicated in table 2.

Does the meter read more than 1 ohm for any net?

Y N

014

The protect card is bad (05-220).

015

The lower maple block is bad

---or---

The JC4 jumper card is bad.

016

The protect card is bad (05-220).

**Table 2
Protect card
(See FLD Vol C)**

| From | To | Net |
|------|-----|-----------|
| Z02 | Z22 | YA140AZ72 |
| Z03 | Z23 | YA140AZ73 |
| Z04 | Z24 | YA140AZ74 |

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PEC 826380

MAP 0501-3

Dead Machine Entry

MAP 0502-1

5360 Systems Unit

PAGE 1 OF 11

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0500 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 4 | 020 | 0500 | B |
| 3 | 007 | 0561 | A |
| 3 | 009 | 0561 | A |
| 3 | 012 | 0561 | A |
| 4 | 019 | 0561 | A |
| 5 | 028 | 0561 | A |
| 4 | 014 | 0572 | B |
| 4 | 016 | 0572 | B |
| 10 | 053 | 0572 | B |
| 10 | 065 | 0577 | A |
| 11 | 067 | 0588 | A |
| 10 | 061 | 1701 | A |

001

(Entry Point A)

MAP DESCRIPTION:

This MAP checks the AC and DC fuses, CB1 and other causes of a dead machine.

ENTRY CONDITIONS:

Dead machine. The machine does not power on and the machine lights are not on.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

Upper maple block Protect card
Lower maple block JC3 cable
Control transformer JA1 cable
Control AC capacitor Fuse F1
Control power assembly Fuse F8
DC fuse holder (for F8)
Control cable

(Step 001 continues)

(Step 001 continues)

**Dead Machine Entry
5360 Systems Unit**

MAP 0502-2

PAGE 2 OF 11

(Step 001 continued)

(Step 001 continued)

Does this machine have a 3-section circuit breaker (CB1) (05-210)?

Y N

002

- Set CB1 to the Off position (05-215).
- Remove and check fuses F1 and F8.
- Reinstall fuses F1 and F8 (with good fuses, if bad).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the On position (05-215).

Does the machine remain powered off?

Y N

003

- Set CB1 to the Off position (05-215) (note 1).
- Disconnect the line cord from the power outlet.

Note 1: CB1 may have been tripped or set to the Off position because of another problem.

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

- Remove the cover from the AC box (05-215).
- The arc suppressors are bad
---or---
- (Step 003 continues)

1
1 3
A B

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EC 826487 PEC 826380
MAP 0502-2

B
2

**Dead Machine Entry
5360 Systems Unit**

PAGE 3 OF 11

(Step 003 continued)
Relay K1 is bad.

004

- Press and hold the Lamp Test key.

Are any control panel lights on?

Y N

005

- Set CB1 to the Off position (05-215).
- Disconnect the line cord from the power outlet.
- Set the meter to measure Vac (highest range).
- Connect the meter to the power outlet.

Does the meter read from 200 to 250 Vac?

Y N

006

- Inform the customer to have power restored to the outlet.
- Set the meter to measure ohms.
- Connect the meter to the line cord from each line contact to the ground contact, and between the line contacts.

Does the meter read more than 100 k-ohms for each contact?

Y N

007

Go To Map 0561, Entry Point A.

008

- Remove fuse F1 from the AC box.
- Set CB1 to the On position (05-215).
- Connect the meter to the line cord from each line contact to the ground contact, and between the line contacts.

Does the meter read more than 100 k-ohms for each contact?

Y N

009

Go To Map 0561, Entry Point A.

1
O 4
C D E

E

MAP 0502-3

010

Was fuse F1 bad?

Y N

011

- Reinstall fuse F1.

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

- Remove the cover from the AC box (05-215).
- Connect the meter from K1-3 (05-215) to ground (05-210).
- Connect the meter from K1-4 (05-215) to ground (05-210).

Does the meter read more than 100 ohms on both?

Y N

012

Go To Map 0561, Entry Point A.

013

- Set CB1 to the Off position (05-215).
- Reconnect the line cord when the customer's power is corrected.
- Set CB1 to the On position (05-215).
- Press and hold the Lamp Test key.

Are any control panel lights on?

Y N

4 4 4
F G H

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MAP 0502-3

D F G H
3 3 3 3

Dead Machine Entry
5360 Systems Unit

PAGE 4 OF 11

014
Go To Map 0572, Entry Point B.

015
(Entry Point B)
- Press and hold the Power Status key.
Is the CS light on?
Y N

016
Go To Map 0572, Entry Point B.

017
- Press the Power key (power on).
Does the machine power on?
Y N

018
- Press and hold the Lamp Test key.
Are any control panel lights on?
Y N

019
Go To Map 0561, Entry Point A.

020
Go To Map 0500, Entry Point B.

021
CB1, the fuses or the cables fixed the problem.

022
- Set CB1 to the Off position (05-215).
- Install a good fuse for F1.
- Reconnect the line cord.
The control transformer is bad.

023
- Reconnect the line cord.
- Set CB1 to the On position (05-215).
- Press and hold the Lamp Test key.
Are any control panel lights on?
Y N

1
0
J K

K

MAP 0502-4

024
- Set the meter to measure Vdc.
- Connect the meter from TP +5 (+) to TP GND (-) on the protect card (05-220).

Does the meter read more than 4.5 Vdc?
Y N

025
- Set CB1 to the Off position (05-215).
- Remove and check fuse F8.
Is fuse F8 bad?
Y N

026
- Reinstall fuse F8.
- Remove and check fuse F1.
Is fuse F1 bad?
Y N

027
- Reinstall fuse F1.

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

- Remove the AC box cover.
- Disconnect J01 (05-215).
- Set the meter to measure Vac (highest range).
- Connect the meter from J01-1 to J01-3 on the AC cable.
- Set CB1 to the On position (05-215).
(Step 027 continues)

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EC 826487 PEC 826380
MAP 0502-4

1 1
0 0 9
L M N

**Dead Machine Entry
5360 Systems Unit**

MAP 0502-5

PAGE 5 OF 11

(Step 027 continued)

Does the meter read between 200 to 250 Vac?

Y N

028

- Set CB1 to the Off position (05-215).
- Go To Map 0561, Entry Point A.**

029

- Set CB1 to the Off position (05-215).
- Reconnect J01.
- Disconnect J12 (05-215) (see note 2).
- Set the meter to measure Vdc.
- Set CB1 to the On position (05-215).
- Connect the meter from J12-7 (+) to J12-3 (-) on the control assembly.

Note 2: With J12 or J13 disconnected, the control supply DC voltage outputs are isolated from frame ground.

Does the meter read more than 5.0 Vdc?

Y N

030

- Set CB1 to the Off position (05-215).
- Disconnect J11 (05-215).
- Set the meter to measure Vac.
- Connect the meter from J11-1 to J11-5 on the control transformer cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vac?

Y N

031

- Set CB1 to the Off position (05-215).
- Use the following procedure to test the control AC capacitor (05-215):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.

(Step 031 continues)

(Step 031 continues)

7 6
P Q

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MAP 0502-5

Dead Machine Entry**5360 Systems Unit**

PAGE 6 OF 11

(Step 031 continued)

(Step 031 continued)

-
- Remove the insulators from the AC capacitor.
 - Short circuit the AC capacitor terminals together before touching the terminals.
 - Disconnect the leads from the AC capacitor terminals.
 - Set the meter to measure ohms (highest range).
 - Connect the meter across the AC capacitor terminals.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

Is the AC capacitor good (see note 3)?

Y N

032

- Reconnect J11 and J12.
- The control AC capacitor is bad.

033

- Reconnect the leads to the AC capacitor.
 - Reconnect J11 and J12.
- The control transformer is bad.

034

- Connect the meter from J11-2 to J11-5 on the control transformer cable.

Does the meter read more than 4.5 Vac?

Y N

035

- Set CB1 to the Off position (05-215).
 - Reconnect J11.
 - Reconnect J12.
- The control transformer is bad.

036

- Set CB1 to the Off position (05-215).
 - Reconnect J11 and J12.
- The control power assembly is bad.

Dead Machine Entry
5360 Systems Unit

PAGE 7 OF 11

037

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from J12-7 on the control power assembly board to ground.

Does the meter read more than 10 k-ohms?

Y N

038

- Disconnect J11 (05-215).
- Connect the meter from J11-1 on board to ground.

Does the meter read more than 10 k-ohms?

Y N

039

- Reconnect J11.
 - Reconnect J12.
- The control power assembly is bad.

040

- Reconnect J11.
 - Reconnect J12.
- The control transformer is bad.

041

- Reconnect J12.
- Disconnect J13 (05-215) (see note 4).
- Set the meter to measure Vdc.
- Connect the meter from J13-6 (+) to J13-7 (-) on the cable from the control power assembly.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

042

- Set CB1 to the Off position (05-215).
 - Reconnect J13.
- The control cable from J12 to J13 is bad
---or---
The DC fuse holder for F8 is bad.

Note 4: With J12 or J13 disconnected, the control supply DC voltage outputs are isolated from frame ground.

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EC 826487 PEC 826380

MAP 0502-7

R
7

Dead Machine Entry

MAP 0502-8

5360 Systems Unit

PAGE 8 OF 11

043

- Set CB1 to the Off position (05-215).
- Reconnect J13.
- Disconnect JC3 (05-220).
- Connect the meter from JC3-D03 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

044

- Set CB1 to the Off position (05-215).
 - Reconnect JC3.
- The JC3 cable from J13 to JC3 is bad.

045

- Set CB1 to the Off position (05-215).
- Reconnect JC3.
- Remove the protect card.
- Connect the meter from Y03 (+) to ground (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

046

- Set CB1 to the Off position (05-215).
 - Reinstall the protect card.
- The lower maple block is bad.

047

- Set CB1 to the Off position (05-215).
- The protect card is bad (05-220).

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EC 826487 PEC 826380
MAP 0502-8

N
4

Dead Machine Entry
5360 Systems Unit

MAP 0502-9

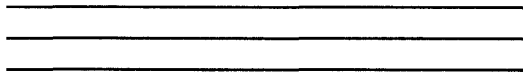
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048

- Install a good fuse for fuse F1.
- Use the following procedure to test the control AC capacitor (05-215):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

Is the AC capacitor good (see note 3)?

Y N



049

The control AC capacitor is bad.

050

- Reconnect the leads to the AC capacitor.
- Disconnect J11 (05-215).
- Set the meter to measure Vac.
- Connect the meter from J11-4 to J11-6 on the control transformer cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vac?

Y N



1 1
0 0
S T

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MAP 0502-9

L M S T
4 4 9 9

Dead Machine Entry

5360 Systems Unit

PAGE 10 OF 11

051

- Set CB1 to the Off position (05-215).
 - Reconnect J11.
- The control transformer is bad.

052

- Set CB1 to the Off position (05-215).
 - Reconnect J11.
- The control power assembly is bad.

053

- Install a good fuse for fuse F8.
- Go To Map 0572, Entry Point B.**

054

- Set CB1 to the Off position (05-215).
- Disconnect JA1 (05-220).
- Connect the meter from JA1-B03 (+) to JA1-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

055

- Set CB1 to the Off position (05-215).
- Reconnect JA1.
- Remove the protect card.
- Set the meter to measure ohms.
- Connect the meter from Y03 to D03 on the protect card.

Does the meter read less than 1 ohm?

Y N

056

The protect card is bad (05-220).

057

- Reinstall the protect card.
- The upper maple block is bad.

C J U
3 4

MAP 0502-10

058

- Set CB1 to the Off position (05-215).
- Reconnect JA1.
- Disconnect B-A1J4D from the control panel.
- Connect the meter from B-A1J4D-D03 (+) to B-A1J4D-D08 (-) on the cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

059

The JA1 cable from JA1 to B-A1J4D is bad.

060

- Set CB1 to the Off position (05-215).
- Reconnect B-A1J4D.
- Set CB1 to the On position (05-215).
- Press and hold the Lamp Test key.

Are any control panel lights on?

Y N

061

Go To Map 1701, Entry Point A.

062

Go to Page 4, Step 015, Entry Point B.

063

Go to Page 4, Step 015, Entry Point B.

064

- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the machine remain powered Off?

Y N

065

- Set the Unit Emergency switch to the Power Off position (05-205).

Go To Map 0577, Entry Point A.

066

Go to Page 4, Step 015, Entry Point B.

U

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MAP 0502-10

A
2

Dead Machine Entry
5360 Systems Unit

MAP 0502-11

PAGE 11 OF 11

067

Go To Map 0588, Entry Point A.

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MAP 0502-11

Power Check Entry

MAP 0503-1

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0500 | A | 1 | 001 |
| 0501 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 3 | 008 | 0501 | A |
| 3 | 006 | 0501 | B |
| 1 | 002 | 0584 | B |

001

(Entry Point A)

- Press and hold the Lamp Test key.

CS UV OC OV/CU 8 4 2 1

MAP DESCRIPTION:

This MAP displays the power check condition.

ENTRY CONDITIONS:

Power Check light is on. CS light shows that control supply is good.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

Protect card

Are all the above Power Status lights on?

Y N

|

002

- Release the Lamp Test key.

Go To Map 0584, Entry Point B.

Power Check Entry
5360 Systems Unit

003

- Release the Lamp Test key.
- Press and hold the Power Status key.
- Record the lights in the power status area:
- Find the failure you recorded in table 1.

Table 1

| CS | UV | OC | OV/CU | 8 | 4 | 2 | 1 | Go to MAP |
|----|----|----|-------|---|---|---|---|---|
| X | . | . | X | . | . | . | X | Base cable unseated 0505 |
| X | . | . | X | . | . | X | . | Go to Step 004, Entry Point B. |
| X | . | . | X | . | . | X | X | Go to Step 004, Entry Point B. |
| X | . | . | X | . | X | . | . | Go to Step 004, Entry Point B. |
| X | . | . | X | . | X | . | X | 0V -5 base 0551 |
| X | . | . | X | . | X | X | . | 0V +8.5V/-12V regulator base 0552 |
| X | . | . | X | . | X | X | X | 0V base +1.7V regulator 0553 |
| X | . | . | X | X | . | . | . | A2 cable unseated 0506 |
| X | . | . | X | X | . | . | X | 0V A2 power supply 0555 |
| X | . | . | X | X | . | X | . | Go to Step 004, Entry Point B. |
| X | . | . | X | X | . | X | X | 0V A2 +1.7V Regulator 0556 |
| X | . | . | X | X | X | . | . | A3 cable unseated 0507 |
| X | . | . | X | X | X | . | X | 0V A3 power supply or A3 +1.7v regulator/preload 0532 |
| X | . | . | X | X | X | X | . | Expansion cable unseated 0508 |
| X | . | . | X | X | X | X | X | 0V Expansion 0592 |
| X | . | X | . | . | . | . | X | Go to Step 004, Entry Point B. |
| X | . | X | . | . | . | X | . | OC +5V base 0535 |
| X | . | X | . | . | . | X | X | OC +12V base 0536 |
| X | . | X | . | . | X | . | . | OC +24V base 0537 |
| X | . | X | . | . | X | . | X | OC -5V base 0538 |
| X | . | X | . | . | X | X | . | OC +8.5V/-12V regulator base 0539 |
| X | . | X | . | . | X | X | X | OC base +1.7V regulator 0540 |
| X | . | X | . | X | . | . | . | Go to Step 004, Entry Point B. |
| X | . | X | . | X | . | . | X | OC A2 power supply 0527 |
| X | . | X | . | X | . | X | . | OC A2 board 0528 |
| X | . | X | . | X | . | X | X | OC +1.7V regulator 0529 |
| X | . | X | . | X | X | . | . | Go to Step 004, Entry Point B. |
| X | . | X | . | X | X | . | X | OC A3 power supply or A3 +1.7v regulator/preload 0533 |
| X | . | X | . | X | X | X | . | Go to Step 004, Entry Point B. |
| X | . | X | . | X | X | X | X | OC Expansion 0593 |
| X | X | . | . | . | . | . | X | All UV base 0512 |
| X | X | . | . | . | . | X | . | UV +5V base 0542 |
| X | X | . | . | . | X | X | . | UV +12V base 0543 |
| X | X | . | . | . | X | . | . | UV +24V base 0544 |

(Step 003 continues)

Power Check Entry

MAP 0503-3

5360 Systems Unit

PAGE 3 OF 3

(Step 003 continued)

| | | | | | | | | | |
|---------|----|----|-----|----|---|---|---|--------------------------------|-----------|
| X | X | . | . | . | X | . | X | UV -5V base | 0545 |
| Table 1 | | | | | | | | | |
| CS | UV | OC | OV/ | CU | 8 | 4 | 2 | 1 | Go to MAP |
| X | X | . | . | . | X | X | . | UV +8.5V/-12V regulator base | 0546 |
| X | X | . | . | . | X | X | X | UV base +1.7V regulator | 0548 |
| X | X | . | . | . | X | . | . | All UV A2 | 0515 |
| X | X | . | . | . | X | . | X | UV A2 power supply | 0516 |
| X | X | . | . | . | X | . | X | Go to Step 004, Entry Point B. | |
| X | X | . | . | . | X | . | X | UV A2 +1.7V regulator | 0518 |
| X | X | . | . | . | X | X | . | All UV A3 or | 0530 |
| | | | | | | | | A3 +1.7v regulator/preload | |
| X | X | . | . | . | X | X | . | UV A3 power supply or | 0531 |
| | | | | | | | | A3 +1.7v regulator/preload | |
| X | X | . | . | . | X | X | X | All UV Expansion | 0590 |
| X | X | . | . | . | X | X | X | Any UV Expansion | 0591 |

Did you find the failure in table 1?

Y N

004

(Entry Point B)

Is this the first time through this MAP?

Y N

005

- Set CB1 to the Off position (05-215).

- Set CB1 to the On position (05-215).

Is the Power Check light on?

Y N

006

Go To Map 0501, Entry Point B.

007

The protect card is bad (05-220).

008

Go To Map 0501, Entry Point A.

009

Go to MAP indicated.

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MAP 0503-3

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Disconnect JA3 (05-220).
- Set the meter to measure ohms.
- Connect the meter from JA3-D02 (+) on the upper maple block to ground (-).

MAP DESCRIPTION:

This MAP guides the CE/CSR to the base assemblies which shows a cable unseated condition.

ENTRY CONDITIONS:

The Power Check light is on. After pressing the Power Status key, the CS, OV/CU and 1 lights are on.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Base power assembly
- Base 1.7-volt regulator
- B-A1 board
- JA1 cable
- JC3 cable
- JA3 cable
- Jumper assembly (J32)

Does the meter read less than 10 ohms?

Y N

|

002

- Reconnect JA3.
- Disconnect JA1 (05-220).
- Connect the meter from JA1-B02 (+) on the upper maple block to ground (-).

Does the meter read less than 10 ohms?

Y N

| | |

B C
1 1

Cable Unseated - Base

MAP 0505-2

5360 Systems Unit

PAGE 2 OF 4

003

The protect card is bad (05-220)

---or---

The upper maple block at JA1 is bad.

004

- Connect the meter from JA1-B02 to JA1-D13 on the cable.

- Check the cable loop out to the control panel.

Does the meter read less than 10 ohms?

Y N

005

- Reconnect JA1.

- Disconnect B-A1J4D (10-215).

- Connect the meter from B-A1J4D-D02 to B-A1J4D-B13 on the control panel.

Does the meter read less than 10 ohms?

Y N

006

The B-A1 board is bad.

007

- Reconnect B-A1J4D.

- Set CB1 to the On position (05-215).

- Press the Power key (power on).

Does the machine power on?

Y N

008

The JA1 cable from JA1 to B-A1J4D is bad.

009

A loose connection was the only problem.

010

-Reconnect JA1 cable.

- Set CB1 to the On position (05-215).

- Press the Power key (power on).

Does the machine power on?

Y N

3 3
D E

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MAP 0505-2

A D E
1 2 2

Cable Unseated - Base

5360 Systems Unit

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011

The protect card is bad (05-220)

---or---

The upper maple block at JA1 is bad.

012

A loose connection was the only problem.

013

- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter from JA3-B13 (+) to ground (-) on the upper maple block.

Does the meter read more than 2 Vdc?

Y N

014

- Set CB1 to the Off position (05-215).
- Reconnect JA3.
- Disconnect JC3 (05-220).
- Set the meter to measure ohms.
- Connect the meter from JC3-B02 to JC3-D13 on the cable.

Does the meter read less than 10 ohms?

Y N

015

- Reconnect JC3.
- Disconnect J43 (05-235).
- Connect the meter from J43-1 to J43-10 on the base 1.7-volt regulator.

Does the meter read less than 10 ohms?

Y N

016

The base 1.7-volt regulator is bad.

017

- Reconnect J43.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

F G H J

F G H J

MAP 0505-3

018

The JC3 cable from JC3 to J43 is bad.

019

A loose connection was the only problem.

020

The protect card is bad (05-220)

---or---

The upper maple block is bad.

021

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from JA3-D02 to JA3-B13 on the cable.

Does the meter read less than 10 ohms?

Y N

022

- Reconnect JA3.
- Disconnect J22 (05-240).
- Connect the meter from J22-B02 to J22-D13 on the base power assembly.

Does the meter read less than 10 ohms?

Y N

023

- Reconnect J22.
- Disconnect J32 (05-240).
- Connect the meter from J32-1 to J32-16 on the jumper assembly (05-220).

Does the meter read less than 10 ohms?

Y N

024

Jumper assembly at J32 is bad.

025

Base power assembly is bad.

026

- Reconnect J22.
The JA3 cable from JA3 to J22 is bad.

4
K

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MAP 0505-3

K
3

Cable Unseated - Base

MAP 0505-4

5360 Systems Unit

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027

- Reconnect JA3.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

028

The protect card is bad (05-220)

---or---

The upper maple block is bad.

029

A loose connection was the only problem.

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MAP 0505-4

Cable Unseated - A2 Power
5360 Systems Unit

MAP 0506-1

PAGE 1 OF 3

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

001
(Entry Point A)

MAP DESCRIPTION:

This MAP guides the CE/CSR to the A2 power which shows a cable unseated condition.

ENTRY CONDITIONS:

The Power Check light is on. After pressing the Power Status key the CS, OV/CU and 8 light are on.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- A2 power assembly
- A2 1.7-volt regulator
- Jumper card (JA2)
- JA2 cable
- Jumper assembly (J59)

Is the A2 power supply installed (05-205)?

Y N

002

Is the jumper card installed in position JA2 (05-220)?

Y N

003

The jumper card must be installed if A2 supply is not present.

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MAP 0506-1

2 2
A B

B
1

**Cable Unseated - A2 Power
5360 Systems Unit**

PAGE 2 OF 3

004

- Remove the jumper card from JA2.
- Set the meter to measure ohms.
- Connect the meter from D02 to B13 on the jumper card.

Does the meter read less than 1 ohm?

Y N

005

The jumper card at JA2 is bad (05-220).

006

- Set the meter to measure Vdc.
- Connect the meter from JA2-B13 (+) to JA2-D02 (-) on the upper maple block.

Does the meter read more than 4 Vdc?

Y N

007

The protect card is bad (05-220)
---or---
The upper maple block is bad.

008

- Reinstall the jumper card in JA2.
- Press the Power key (power on).

Does the machine power on?

Y N

009

The protect card is bad (05-220)
---or---
The upper maple block is bad.

010

A loose connection was the only problem.

A
1

MAP 0506-2

011

- Set the meter to measure Vdc.
- Set CB1 to the Off position (05-215).
- Disconnect JA2 (05-220).
- Set CB1 to the On position (05-215).
- Connect the meter from JA2-B13 (+) on the upper maple block to ground (-).

Does the meter read less than 4.5 Vdc?

Y N

012

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from TP GND to JA2-D02 on the upper maple block.

Does the meter read less than 5 ohms?

Y N

013

- Reconnect JA2.
The protect card is bad (05-220)
---or---
The upper maple block is bad.

014

- Connect the meter from JA2-D02 on the cable to JA2-B13 on the cable.

Does the meter read less than 5 ohms?

Y N

015

- Disconnect J54 (05-250).
- Connect the meter from JA2-D02 on the cable to J54-1 on the cable.

Does the meter read less than 5 ohms?

Y N

016

- Reconnect JA2.
- Reconnect J54.
The JA2 cable from JA2 to J54 is bad.

3 3 3
C D E

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MAP 0506-2

E
2

**Cable Unseated - A2 Power
5360 Systems Unit**

PAGE 3 OF 3

017

- Connect the meter from JA2-B13 on the cable to J54-12 on the cable.

Does the meter read less than 5 ohms?

Y N

018

- Disconnect J67 (05-255).
- Connect the meter J54-12 to J67-1 on the cable.

Does the meter read less than 5 ohms?

Y N

019

- Reconnect JA2.
- Reconnect J54.
- Reconnect J67.
The JA2 cable from J54 to J67 is bad.

020

- Reconnect J54.
- Connect the meter from J67-1 to J67-10 on the board.

Does the meter read less than 1 ohm?

Y N

021

- Reconnect JA2.
- Reconnect J67.
The A2 1.7V regulator is bad.

022

- Connect the meter J67-10 on the cable to JA2-B13 on the cable.

Does the meter read less than 1 ohm?

Y N

023

- Reconnect JA2.
- Reconnect J67.
The JA2 cable from JA2 to J67 is bad.

C D F G
2 2

MAP 0506-3

024

- Reconnect JA2.
- Reconnect J67.
A loose connection was the only problem.

025

- Connect the meter from J54-1 to J54-12 (on board).

Does the meter read less than 5 ohms?

Y N

026

- Reconnect JA2.
- Reconnect J54.
The A2 power assembly is bad
---or---
The jumper assembly at J59 is bad (pin 1 to pin 12 open).

027

- Reconnect J54.
- Reconnect JA2.
A loose connection was the only problem.

028

The protect card is bad (05-220)
---or---
The upper maple block is bad.

029

The protect card is bad (05-220)
---or---
The upper maple block is bad at JA2.

F G

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MAP 0506-3

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

001
(Entry Point A)

MAP DESCRIPTION:

This MAP guides the CE/CSR to the A3 power supply with built-in 1.7-volt regulator and the A3 power supply with separate 1.7-volt regulator/preload assembly which shows a cable unseated condition.

ENTRY CONDITIONS:

The Power Check light is on. After pressing Power Status key, the CS, OV/CU, 8 and 4 lights are on.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Upper maple block
- Protect card
- A3 power assembly
- Jumper card (JA4)
- JA4 cable
- Jumper assembly (J76)
- A3 1.7-volt regulator/preload assembly
- A3 1.7-volt regulator cable (from J74 to J70)(from J74 to J70)
- Jumper assembly (J71)

Is the A3 supply installed on system (05-205)?

Y N

002

Is the jumper card in position JA4 (05-220)?

Y N

2 2 2
A B C

B C
1 1

**Cable Unseated - A3 Supply
5360 Systems Unit**

PAGE 2 OF 5

003

The jumper card must be installed if A3 supply is not present.

004

- Set CB1 to the Off position (05-215).
- Remove jumper card from JA4.
- Set the meter to measure ohms.
- Connect the meter from D02 to B13 on the jumper card.

Does the meter read less than 1 ohm?

Y N

005

- Reinstall the jumper card in JA4.
- The jumper card at JA4 is bad.

006

- Set the meter to measure Vdc.
- Connect the meter from JA4-B13 (+) to JA4-D02 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4 Vdc?

Y N

007

- Reinstall the jumper card in JA4.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

008

- Set CB1 to the Off position (05-215).
- Reinstall the jumper card in JA4.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

009

The protect card is bad (05-220).

010

A loose connection was the only problem.

MAP 0507-2

A
1

011

Is the A3 1.7-volt regulator/preload assembly (05-262) installed?

Y N

012

- Set CB1 to the Off position (05-215).
- Disconnect JA4 (05-220).
- Set the meter to measure ohms.
- Connect the meter from JA4-D02 (+) on the upper maple block to TP GND on the protect card.

Does the meter read more than 1 ohm?

Y N

013

- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter from JA4-B13 on the upper maple block to TP GND.

Does the meter read more than 4.5 Vdc?

Y N

014

- Reconnect JA4.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

015

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from JA4-D02 to JA4-B13 on the cable.

Does the meter read less than 5 ohms?

Y N

016

- Disconnect J72 (05-260) (the cable retainer must be removed first).
- Connect the meter from JA4-D02 on the cable to J72-B02 on the cable.

Does the meter read less than 5 ohms?

Y N

3 3 3 3 3
D E F G H

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MAP 0507-2

E 2
F 2
G 2
H 2

**Cable Unseated - A3 Supply
5360 Systems Unit**

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017

- Reconnect JA4.
 - Reconnect J72.
- The JA4 cable from JA4 to J72 is bad.

018

- Connect the meter from JA4-B13 on the cable to J72-D13 on the cable.

Does the meter read less than 5 ohms?

Y N

019

- Reconnect JA4.
 - Reconnect J72.
- The JA4 cable from JA4 to J72 is bad.

020

- Reconnect JA4.
- Connect the meter from J72-B02 to J72-D13 on the A3 power assembly.

Does the meter read less than 5 ohms?

Y N

021

- Reconnect J72.
- The A3 power assembly is bad
---or---
The jumper assembly at J76 is bad (pin 1 to pin 12 open circuit).

022

- Reconnect J72.
- A loose connection was the only problem.

023

- Reconnect JA4.
- The protect card is bad (05-220).

024

- Reconnect JA4.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

D 2

MAP 0507-3

025

- Set CB1 to the Off position (05-215).
- Disconnect JA4 (05-220).
- Set the meter to measure ohms.
- Connect the meter from JA4-D02 (+) on the upper maple block to TP GND on the protect card.

Does the meter read more than 1 ohm?

Y N

026

- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter from JA4-B13 (+) on the upper maple block to TP GND (-).

Does the meter read more than 4.5 Vdc?

Y N

027

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

028

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from JA4-D02 to JA4-B13 on the cable.

Does the meter read less than 5 ohms?

Y N

029

- Disconnect J72 (05-261) (the cable retainer must be removed first).
- Connect the meter from JA4-D02 on the cable to J72-B02 on the cable.

Does the meter read less than 5 ohms?

Y N

030

- Reconnect JA4.
 - Reconnect J72.
- The JA4 cable from JA4 to J72 is bad.

5 5 4
J K L

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MAP 0507-3

L
3

Cable Unseated - A3 Supply
5360 Systems Unit

PAGE 4 OF 5

031

- Connect the meter from JA4-B13 on the cable to J72-D13 on the cable.

Does the meter read less than 5 ohms?

Y N

032

- Reconnect JA4.
- Reconnect J72.

The JA4 cable from JA4 to J72 is bad.

033

- Reconnect JA4.
- Connect the meter from J72-B02 to J72-D13 on the A3 power assembly.

Does the meter read less than 5 ohms?

Y N

034

- Disconnect J74 (05-260).
- Connect the meter from J72-B02 to J74-1 on the A3 power assembly.

Does the meter read less than 5 ohms?

Y N

035

- Reconnect J72.
- Reconnect J74.

The A3 power assembly is bad.

036

- Connect the meter from J72-D13 to J74-12 on the A3 power assembly.

Does the meter read less than 5 ohms?

Y N

037

- Disconnect J71 (05-261).
- Connect the meter from J71-1 to J71-16 on the J71 test jumper assembly.

Does the meter read less than 5 ohms?

Y N

5
M

N P Q

N P Q

MAP 0507-4

038

- Reconnect J72.
- Reconnect J74.
- Reconnect J71.

The J71 jumper assembly is bad.

039

- Reconnect J71.
- Disconnect J76 (05-261).
- Connect the meter J76-1 to J76-12 on the J76 test jumper assembly.

Does the meter read less than 5 ohms?

Y N

040

- Reconnect J72.
- Reconnect J74.
- Reconnect J76.

The J76 jumper assembly is bad.

041

- Reconnect J72.
- Reconnect J74.
- Reconnect J76.

The A3 power assembly is bad.

042

- Disconnect J70 (05-262).
- Connect the meter J70-1 to J70-8 on the 1.7-volt regulator/preload assembly.

Does the meter read less than 5 ohms?

Y N

043

- Reconnect J74.
- Reconnect J72.
- Reconnect J70.

The 1.7-volt regulator/preload assembly is bad.

044

- Reconnect J74.
- Reconnect J72.
- Reconnect J70.

The cable from J74 to J70 is bad.

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MAP 0507-4

J K M
3 3 4

Cable Unseated - A3 Supply

MAP 0507-5

5360 Systems Unit

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045

- Reconnect J72.

A loose connection was the only problem.

046

- Reconnect JA4.

The protect card is bad (05-220).

047

- Reconnect JA4.

The protect card is bad (05-220)

---or---

The upper maple block is bad.

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MAP 0507-5

Cable Unseated - Expansion Supply
5360 Systems Unit

MAP 0508-1

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

001
(Entry Point A)

MAP DESCRIPTION:
 This MAP guides the CE/CSR to the Expansion power supply which shows a Cable Unseated condition.

ENTRY CONDITIONS:
 The Power Check light is on. After pressing Power Status key, the CS, OV/CU, 8, 4, 2 and 1 lights are on.

START CONDITIONS:
 None

FRUs PARTIALLY TESTED:
 Lower maple block
 Protect card
 Expansion power supply
 Jumper card (JC4)
 JC4 cable
 Jumper assembly (J90)

Is the Expansion supply installed on this system (05-205)?

Y N

002

Is the jumper card in position JC2 (05-220)?

Y N

003

The jumper card must be installed when the Expansion supply is not present.

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 MAP 0508-1

2 2
 A B

B
1

**Cable Unseated - Expansion
5360 Systems Unit**

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004

- Set CB1 to the Off position (05-215).
- Remove jumper card from JC2.
- Set the meter to measure ohms.
- Connect the meter from D02 to B13 on the jumper card.

Does the meter read less than 1 ohm?

Y N

005

The jumper card in JC2 is bad.

006

- Set the meter to measure Vdc.
- Connect the meter from JC2-B13 (+) to JC2-D02 (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4 Vdc?

Y N

007

The protect card is bad (05-220)
---or---
The lower maple block is bad.

008

- Set CB1 to the Off position (05-215).
- Reinstall the jumper card in JC2.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

009

The protect card is bad (05-220).

010

A loose connection was the only problem.

A
1

MAP 0508-2

011

- Set CB1 to the Off position (05-215).
- Disconnect JC2 (05-220).
- Set the meter to measure ohms.
- Connect the meter from JC2-B13 (+) on the lower maple block to TP GND on the protect card.

Does the meter read more than 1 ohm?

Y N

012

- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter from JC2-D02 on the lower maple block to TP GND.

Does the meter read more than 4.5 Vdc?

Y N

013

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The protect card is bad (05-220)
---or---
The lower maple block is bad.

014

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from JC2-D02 to JC2-B13 on the cable.

Does the meter read less than 5 ohms?

Y N

015

- Disconnect J89 (05-290).
- Connect the meter from JC2-D02 on the cable to J89-1 on the cable.

Does the meter read less than 5 ohms?

Y N

016

- Reconnect JC2.
 - Reconnect J89.
- The JC2 cable from JC2 to J89 is bad.

15Feb84 PN 4177337

EC 826487 PEC 826380

MAP 0508-2

3 3 3
C D E

C D E
2 2 2

Cable Unseated - Expansion

MAP 0508-3

5360 Systems Unit

PAGE 3 OF 3

017

- Connect the meter from JC2-B13 on the cable to J89-12 on the cable.

Does the meter read less than 5 ohms?

Y N

018

- Reconnect JC2.

- Reconnect J89.

The JC2 cable from JC2 to J89 is bad.

019

- Reconnect JC2.

- Connect the meter from J89-1 to J89-12 on the Expansion power assembly.

Does the meter read less than 5 ohms?

Y N

020

- Reconnect JC2.

- Reconnect J89.

The Expansion power assembly is bad

---or---

The jumper assembly at J90 is bad (pin 1 to pin 16 is an open circuit).

021

- Reconnect J89.

- Reconnect JC2.

A loose connection was the only problem.

022

The protect card is bad (05-220).

023

- Reconnect JC2.

The protect card is bad (05-220)

---or---

The lower maple block is bad.

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EC 826487

PEC 826380

MAP 0508-3

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0500 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 2 | 011 | 0500 | A |
| 2 | 009 | 0572 | A |
| 2 | 010 | 0572 | A |
| 3 | 013 | 0572 | A |
| 2 | 003 | 0572 | B |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Remove and check fuses F7 and F9 (05-215).
- Reinstall all fuses (with good fuses if any fuse is bad).

MAP DESCRIPTION:

This MAP determines the cause of the CS light not on.

ENTRY CONDITIONS:

Pressing Power Status key does not light the CS light (control panel).

The machine is off.

The other lights are on with lamp test pressed.

The Unit Emergency switch is set to Power Enable.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

Fuse F7, Fuse F9

Note 1: Fuse F8 is checked by the lamp test.

Were all the fuses good (see Note 1)?

Y N

002

(Entry Point B)

- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on (control panel)?

Y N

3 2 2
A B C

B C
1 1

CS Light Status Entry
5360 Systems Unit

MAP 0509-2

PAGE 2 OF 3

003

Go To Map 0572, Entry Point B.

004

- Press the Power key (power on).

Does the machine power on?

Y N

005

- Press and hold the Lamp Test key.

This is to ensure the control supply fuses are still good.

Is the CS light on (control panel)?

Y N

006

- Set CB1 to the Off position (05-215).

- Remove and check fuses F7 and F9 (05-215).

Are all the fuses good?

Y N

007

Is any fuse bad for the second time?

Y N

008

- Reinstall all fuses (with good fuses if any fuses are bad).

Go to Page 1, Step 002, Entry Point B.

009

- Reinstall all fuses (with good fuses if any fuses are bad).

Go To Map 0572, Entry Point A.

010

- Reinstall all fuses (with good fuses if any fuses are bad).

Go To Map 0572, Entry Point A.

011

Go To Map 0500, Entry Point A.

012

The bad fuse was the only problem.

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PEC 826380

MAP 0509-2

A
1

CS Light Status Entry
5360 Systems Unit

MAP 0509-3

PAGE 3 OF 3

013

Go To Map 0572, Entry Point A.

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EC 826487 PEC 826380

MAP 0509-3

5360 Systems Unit

PAGE 1 OF 5

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0121 | A | 1 | 001 |
| 0500 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 3 | 015 | 0101 | A |
| 4 | 030 | 0512 | A |
| 4 | 028 | 0516 | A |
| 4 | 029 | 0518 | A |
| 2 | 010 | 0521 | A |
| 2 | 005 | 0522 | A |
| 2 | 007 | 0523 | A |
| 2 | 003 | 0524 | A |
| 3 | 020 | 0525 | A |
| 4 | 026 | 0531 | A |
| 4 | 030 | 0542 | A |
| 4 | 030 | 0543 | A |
| 4 | 030 | 0544 | A |
| 4 | 030 | 0545 | A |
| 4 | 030 | 0546 | A |
| 4 | 030 | 0548 | A |
| 5 | 031 | 0572 | B |
| 3 | 019 | 0584 | A |

001

(Entry Point A)

MAP DESCRIPTION:

This MAP separates AC, DC and signal problems.

ENTRY CONDITIONS:

The machine is powered on.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- Lower maple block
- JC4 jumper card

(Step 001 continues)

Logic Problem
5360 Systems Unit

MAP 0511-2

PAGE 2 OF 5

(Step 001 continued)

Is the problem a missing or wrong dc voltage level?

Y N

002

Is the diskette drive turning?

Y N

003

Go To Map 0524, Entry Point A.

004

Is the power fan turning?

Y N

005

Go To Map 0522, Entry Point A.

006

Are the gate fans turning?

Y N

007

Go To Map 0523, Entry Point A.

008

Is the 21ED installed?

Y N

009

Are all disk drives and disk fans turning?

Y N

010

Go To Map 0521, Entry Point A.

011

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

4 3
A B

15Feb84 PN 4177297

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MAP 0511-2

B
2

Logic Problem
5360 Systems Unit

MAP 0511-3

PAGE 3 OF 5

012

(Entry Point B)

Is the problem with AC power to J08 fan connector?

Y N

013

Is the problem with the lights on the control panel?

Y N

014

Is the problem with a signal from the protect card to the system?

Y N

+ SPOR, - SPOR, - Data Protect or - Power Good

015

Go To Map 0101, Entry Point A.

016

- Check failing signal for open circuit or short circuit to ground.

Did you find an open or short circuit?

Y N

017

The protect card is bad (05-220)

---or---

The lower maple block is bad

---or---

The JC4 jumper is bad.

018

- Repair the cable.

019

Go To Map 0584, Entry Point A.

020

Go To Map 0525, Entry Point A.

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EC 826487 PEC 826380

MAP 0511-3

A
2

Logic Problem
5360 Systems Unit

PAGE 4 OF 5

021

Is the error from the control power assembly?

Y N

022

Is the error from the base power assembly or base +1.7V regulator?

Y N

023

Is the error from the A2 power assembly or A2 +1.7V regulator?

Y N

024

Is the error from the A3 power assembly?

Y N

025

The following information includes suggestions that might aid you in finding a machine problem:

- Use the MAP description and the supplemental column (right column) information in the MAPs to aid you in your analysis of the problem.
- Look at the error log recordings using ERAP. Use the error recording information (01-360) to help analyze the error history table information for the different areas. If the error recording information is applicable, go to the MAP indicated. If the error recording information fails to correct the problem, return here.
- If you are satisfied that the system is functioning properly, return it to the customer. If there is still a problem on the system, refer to the General MIM for other testing procedures.

(Step 025 continues)

D E F

MAP 0511-4

(Step 025 continued)

- If the error recording information fails to find the cause of the problem or an error recording does not exist, and the General MIM does not provide any additional tests or procedures to isolate the problem, go to the Intermittent Failure Replacement List MAP (0300).

026

Go To Map 0531, Entry Point A.

027

Is the error from the A2 +1.7V regulator?

Y N

028

Go To Map 0516, Entry Point A.

029

Go To Map 0518, Entry Point A.

030

Which voltage level is missing?

+5

Go To Map 0542, Entry Point A.

+12

Go To Map 0543, Entry Point A.

+24

Go To Map 0544, Entry Point A.

-5

Go To Map 0545, Entry Point A.

All of the above,

Go To Map 0512, Entry Point A.

+8.5

Go To Map 0546, Entry Point A.

+1.7

Go To Map 0548, Entry Point A.

5
C

D E F

15Feb84

PN 4177297

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PEC 826380

MAP 0511-4

C
4

Logic Problem
5360 Systems Unit

MAP 0511-5

PAGE 5 OF 5

031

Go To Map 0572, Entry Point B.

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EC 826487 PEC 826380
MAP 0511-5

5360 Systems Unit

PAGE 1 OF 7

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0511 | A | 1 | 001 |
| 0599 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 2 | 005 | 0500 | B |
| 3 | 015 | 0500 | B |
| 3 | 012 | 0513 | A |
| 6 | 034 | 0541 | A |
| 3 | 014 | 0574 | A |
| 4 | 020 | 0574 | A |
| 2 | 003 | 0577 | A |

001
(Entry Point A)

MAP DESCRIPTION:

This MAP determines if the cause of the failure is in the AC box, controller, or assemblies.

ENTRY CONDITIONS:

The Power Check light is on. The Power Status indicates All UV Base.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- AC cable
- Fuse F2
- AC fuse holder (F2)
- Relay K1
- Fuse F6

Is the Unit Emergency switch set to the Power Enable position (05-205)?

Y N

Two vertical lines representing the Y and N response paths for the question above.

2 2
A B

A B
1 1

Base Power All UV Entry

MAP 0512-2

5360 Systems Unit

PAGE 2 OF 7

002

- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the machine remain powered off?

Y N

003

- Set the Unit Emergency switch to the Power Off position (05-205).

Go To Map 0577, Entry Point A.

004

- Press the Power key (power on).

Does the machine power on?

Y N

005

Go To Map 0500, Entry Point B.

006

The Unit Emergency switch was the only problem.

007

- Set CB1 to the Off position (05-215).
- Remove and check fuses F2 and F6 (05-215).

Checks the fuse for the base transformer. ,

Are both fuses F2 and F6 good?

Y N

008

- Reinstall fuses F2 and F6 (with a good fuse for any bad fuse).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

009

- Set CB1 to the Off position (05-215).
- Remove and check fuse F2 (05-215).

Is fuse F2 good?

Y N

4 3 3 3
C D E F

04NOV85 PN 4177298

EC 842350 PEC 826487

MAP 0512-2

D E F
2 2 2

Base Power All UV Entry

MAP 0512-3

5360 Systems Unit

PAGE 3 OF 7

010

- Disconnect J02 at base transformer (05-225).
- Install a good fuse for fuse F2.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Set CB1 to the Off position (05-215).
- Remove and check fuse F2.

Is fuse F2 good?

Y N

011

- Install a good fuse for fuse F2.
 - Reconnect J02 at the base transformer.
- The AC cable is bad (short circuit to ground)
---or---
The AC fuse holder for F2 is bad.

012

- Reinstall fuse F2.
- Reconnect J02 at the base transformer.

Go To Map 0513, Entry Point A.

013

- Reinstall fuse F2.
- Remove and check fuse F6.

Is fuse F6 good?

Y N

014

Go To Map 0574, Entry Point A.

015

- Reinstall fuse F6.
 - Set CB1 to the On position (05-215).
- The bad fuse was caused by another problem.

Go To Map 0500, Entry Point B.

016

The bad fuse was the only problem.

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EC 842350 PEC 826487

MAP 0512-3

017

Does this machine have a 3-section circuit breaker (CB1) (05-210)?

Y N

018

(Entry Point B)

Note: You may read up to 250 Vac.

- Reinstall fuse F2 and F6.
- Disconnect J02 at transformer (05-225).
- Set the meter to measure Vac.
- Connect the meter from J02-4 to J02-5 on the cable.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the meter vary toward or read line voltage?

Y N

019

- Set CB1 to the Off position (05-215).
- Reconnect J02 at the base transformer.
- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter from TP K1 (+) to TP GND (-) on the protect card (05-220).

Does the meter read from +20 to +30 Vdc?

Y N

020

Go To Map 0574, Entry Point A.

021

- With the meter still connected, press the Power key (power on).

Did the meter vary toward 0 Vdc?

Y N

022

The protect card is bad (05-220).

J
4

Base Power All UV Entry

MAP 0512-5

5360 Systems Unit

PAGE 5 OF 7

023

- Set CB1 to the Off position (05-215).
- Disconnect the line cord from the power outlet.
- Disconnect J01 (05-215).
- Set the meter to measure ohms.
- Connect the meter from J01-3 on the AC cable to K1-5 (05-215).

Does the meter read less than 1 ohm?

Y N

024

- Reconnect J01.
- The AC cable is bad (CB1-T1 to K1-5).
---or---
The AC cable is bad (CB1-T1 to J01-3).

025

- Connect the meter from J01-1 on the AC cable to K1-6 (05-215).

Does the meter read less than 1 ohm?

Y N

026

- Reconnect J01.
- The AC cable is bad (CB1-T2 to K1-6).
---or---
The AC cable is bad (CB1-T2 to J01-1).

027

- Reconnect J01.
- Disconnect J02 (05-225).
- Connect the meter from J02-6 on the AC cable to K1-3.

Does the meter read less than 1 ohm?

Y N

028

- The AC cable is bad (J02-6 to K1-3).

6
K

04NOV85 PN 4177298
EC 842350 PEC 826487
MAP 0512-5

H K
4 5

**Base Power All UV Entry
5360 Systems Unit**

MAP 0512-6

PAGE 6 OF 7

029

- Connect the meter from J02-4 on the AC cable to K1-4.

This checks the cable and fuse F2.

Does the meter read less than 1 ohm?

Y N

030

- Connect the meter from J02-4 on the AC cable to F2 fuse holder (05-215).

Does the meter read less than 1 ohm?

Y N

031

The AC cable is bad (F2 to J02-4)

---or---

The AC fuse holder (F2) is bad.

032

The AC cable is bad (F2 to K1-4)

---or---

The AC fuse holder (F2) is bad.

033

Relay K1 is bad

---or---

A loose connection in the AC cable was the only problem.

034

- Set CB1 to the Off position (05-215).
- Reconnect J02 at the base transformer.
- Set CB1 to the On position (05-215).

Go To Map 0541, Entry Point A.

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EC 842350 PEC 826487
MAP 0512-6

G
4

**Base Power All UV Entry
5360 Systems Unit**

PAGE 7 OF 7

035

- Reinstall fuse F2 and F6.
- Set CB1 to the Off position (05-215).

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

- Remove the cover from the AC box (05-215).
- Set the meter to measure Vac.
- Connect the meter from K1-2 to K1-3 on the cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 180 Vac?

Y N

036

- Set CB1 to the Off position (05-215).
- Disconnect the line cord from the power outlet.
- Set the meter to measure ohms.
- Connect the meter from the output side (line filter) of LF3 to K1-3.
- Set CB1 to the On position (05-215).

Does the meter read more than 1 ohm?

Y N

037

- Connect the meter from the output side of LF2 (line filter) to K1-2.

Does the meter read more than 1 ohm?

Y N

L M N P

L M N P

MAP 0512-7

038

- The line cord
- or---
- The line filter assembly is bad.

039

- CB1 is bad
- or---
- The AC wire (LF2 to CB1-L2) is bad
- or---
- The AC cable (CB1-T2 to K1-2) is bad.

040

- CB1 is bad
- or---
- The AC wire (LF3 to CB1-L3) is bad
- or---
- The AC cable (CB1-T3 to K1-3) is bad.

041

Go to Page 4, Step 018, Entry Point B.

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MAP 0512-7

5360 Systems Unit

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0512 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 2 | 003 | 0500 | A |

001

(Entry Point A)

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Disconnect J29 (05-240).
- Set the meter to measure Vdc.
- Connect the meter from the J24-6 (+) to ground.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

MAP DESCRIPTION:

This MAP locates a failing FRU in the base power when fuse F2 is bad.

ENTRY CONDITIONS:

The Power Check light is on. The Power Status indicates All UV Base.

The CS light is on when the Lamp Test key is pressed. F2 repeatedly is bad.

CB1 is off.

START CONDITIONS:

None.

FRUs PARTIALLY TESTED:

- Base power assembly
- Base +5V assembly
- Base AC capacitor
- Base transformer
- Fuse F2

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is from 3 to 5 seconds, or just long enough to get a meter reading.

Does the meter read less than 4.5 Vdc?

| | |
|---|---|
| | |
| Y | N |
| 2 | 2 |
| A | B |

A B
1 1

Base Power All UV

MAP 0513-2

5360 Systems Unit

PAGE 2 OF 4

002

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J29.
- Disconnect J14 (05-230).
- Connect the meter from J25-2 (+) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read less than 10.8 Vdc?

Y N

003

- Reconnect J14.
- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).

Go To Map 0500, Entry Point A.

004

- Reconnect J14.
 - Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 and TP GND.
- The base power assembly is bad (05-240).

005

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove and check fuse F2.
- Reinstall fuse F2 (with a good fuse if bad).
- Reconnect J29.
- Disconnect J14 (05-230).
- Connect the meter from J25-2 (+) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read less than 10.8 Vdc?

Y N

A short circuit on the base +5V assembly can cause the +12V level to be UV.

4 3
C D

15Feb84 PN 4177299
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MAP 0513-2

D
2

**Base Power All UV
5360 Systems Unit**

MAP 0513-3

PAGE 3 OF 4

006

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J14.
- Disconnect J24 (05-230).
- Connect the meter from cable J24-1 (+) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read less than 4.5 Vdc?

Y N

007

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Connect J24 (05-220).

The base power assembly (05-240) is bad.

008

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Connect J24 (05-220).

The base +5V assembly is bad (05-215).

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MAP 0513-3

C
2

**Base Power All UV
5360 Systems Unit**

MAP 0513-4

PAGE 4 OF 4

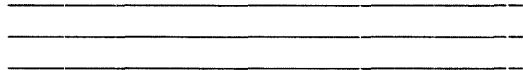
009

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove and check fuse F2.
- Reinstall fuse F2 (with a good fuse if bad).

- Use the following procedure to test the base AC capacitor (05-205):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

Is the base AC capacitor good (see note 3)?

Y N

010

- Remove the jumper from TP K1 and TP GND.
The base AC capacitor is bad (05-205).

011

- Remove the jumper from TP K1 and TP GND.
The base transformer is bad (05-225).

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 2 | 013 | 0500 | B |

001
(Entry Point A)

MAP DESCRIPTION:
This MAP locates the failing FRU for A2 power supply

ENTRY CONDITIONS:
The Power Check light is on. The Power Status indicates UV condition on the A2 supply.

START CONDITIONS:
None

- FRUs PARTIALLY TESTED:
- Lower maple block
 - Protect card
 - Jumper card (JA2)
 - A2 transformer
 - A2 AC capacitor
 - A2 power assembly
 - E12 ground wire
 - Fuse F3
 - AC fuse holder (F3)
 - AC cable
 - JA2 cable

Is the A2 power supply installed (05-205)?

Y N

002
 The protect card is bad (05-220)
 ---or---
 The upper maple block is bad
 ---or---
 The jumper card in JA2 is bad.

A
1

**A2 Supply All UV
5360 Systems Unit**

PAGE 2 OF 7

003

- Set CB1 to the Off position (05-215).
 - Set the meter to measure ohms.
 - Connect the meter from E12 to the DC ground board.
- Does the meter read less than 1 ohm?**

Y N

004

The E12 ground wire from E12 to the DC ground board is bad.

005

- Remove fuse F3 from the AC box.
- Is fuse F3 good?**

Y N

006

- Install a good fuse (F3).
 - Set CB1 to the On position (05-215).
 - Press the Power key (power on).
- Does machine power on?**

Y N

007

- Set CB1 to the Off position (05-215).
 - Remove fuse F3.
- Is fuse F3 good?**

Y N

008

- Install a good fuse (F3).
 - Disconnect J03.
 - Set CB1 to the On position (05-215).
 - Press the Power key (power on).
 - Set CB1 to the Off position (05-215).
 - Remove fuse F3.
- Is fuse F3 good?**

Y N

3
B

C D E F

C D E F

MAP 0515-2

009

- Install a good fuse F3.
 - Reconnect J03.
- The AC cable is bad (short circuit to ground)
---or---
The AC fuse holder at F3 is bad.

010

- Reinstall fuse F3.
 - Reconnect J03.
 - Disconnect J55, J60 and J61.
 - Set CB1 to the On position (05-215).
 - Press the Power key (power on).
 - Set CB1 to the Off position (05-215).
 - Remove fuse F3.
- Is fuse F3 good?**

Y N

011

- Install a good fuse for F3.
- Go to Page 7, Step 038, Entry Point B.**

012

- Reinstall fuse F3.
 - Reconnect J55, J60 and J61.
- The A2 power assembly is bad.

013

- Reinstall the fuse F3.
 - Set CB1 to the On position (05-215).
- The bad fuse was caused by the other problem.
Go To Map 0500, Entry Point B.

014

The bad fuse was the only problem.

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MAP 0515-2

015

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reinstall fuse F3.
- Disconnect J55, J60, J61.
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set the meter to measure Vac.
- Connect the meter from J60-1 to J60-2 on the transformer side.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Does the meter read more than 9.0 Vac?

Y N

016

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J55, J60, J61.
- Disconnect J03.
- Set the meter to measure Vac (highest range).
- Connect the meter from J03-1 to J03-3 on the AC cable.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than 180 Vac?

Y N

017

Does this machine have a 3-section circuit breaker (CB1) (05-210)?

Y N

5 5 4 4
G H J K

J K
3 3

**A2 Supply All UV
5360 Systems Unit**

MAP 0515-4

PAGE 4 OF 7

018

- Reconnect J03.
- Remove the jumper from the protect card.
- The AC cable is bad
(open circuit, K1-3 to J03)
(open circuit, F3 to J03-1)
(open circuit, F2 to F3)
---or---
- The AC fuse holder for F3 is bad.

019

- Set CB1 to the Off position (05-215).

* * * * *

DANGER

* * * * *

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

- Remove the AC box cover.
- Set CB1 to the On position (05-215).
- Set the meter to measure Vac (highest range).
- Connect the meter from K1-1 to K1-2 on the cable.

Does the meter read more than 180 Vac?

Y N

020

- The AC cable is bad
(K1-1 to CB1-T1)
---or---
- (K1-2 to CB1-T2).

5
L

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G H L
3 3 4

**A2 Supply All UV
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021

The AC cable is bad
(open circuit, K1-5 to F3)
(open circuit, F3 to J03-1)
(open circuit, K1-6 to J03-3)

---or---

The AC fuse holder for F3 is bad

---or---

K1 is bad.

022

- Set CB1 to the Off position (05-215).
- Reconnect J03.
- Remove the jumper from the protect card.

Go to Page 7, Step 038, Entry Point B.

023

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J55, J60, J61.
- Disconnect J54.
- Set the meter to measure Vdc.
- Connect the meter from J54-3 (+) to J54-4 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

024

- Reconnect J54.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA2 (05-220).
- Connect the meter from JA2-B03 (+) to JA3-B08 (-) on the upper maple block.

Does the meter read more than +4.5 Vdc?

Y N

025

- Reconnect JA2.
The upper maple block is bad
---or---
The protect card is bad (05-220).

M N

MAP 0515-5

026

- Reconnect JA2.
The JA2 cable from JA2 to J54 is bad.

027

- Connect the meter from J54-4 (+) to J54-5 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

028

- Reconnect J54.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA2 (05-220).
- Connect the meter from JA2-B08 (+) to JA2-B06 (-) on the upper maple block.

Does the meter read more than +4.5 Vdc?

Y N

029

- Reconnect JA2.
The upper maple block is bad
---or---
The protect card is bad (05-220).

030

- Reconnect JA2.
The JA2 cable from JA2 to J54 is bad.

031

- Connect the meter from J54-10 (+) to J54-4 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

M N

6 6
P Q

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MAP 0515-5

032

- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Reconnect J54.
- Disconnect JA2 (05-220).
- Connect the meter from JA2-B05 (+) to JA2-B08 (-) on the upper maple block.

Does the meter read more than +4.5 Vdc?

Y N

033

The protect card is bad (05-220)
---or---
The upper maple block is bad.

034

The JA2 cable from JA2 to J54 is bad.

035

- Reconnect J54.
- Connect the meter from J54-10 (+) to J54-4 (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than +4.5 Vdc?

Y N

036

- Remove the jumper from TP K1 and TP GND.
The A2 power assembly is bad.

037

- Remove the jumper from TP K1 and TP GND.
The protect card is bad (05-220).

**A2 Supply All UV
5360 Systems Unit**

MAP 0515-7

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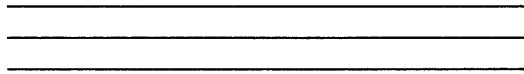
038

(Entry Point B)

- Set CB1 to the Off position (05-215).
- Use the following procedure to test the A2 AC capacitor (05-250):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Is the AC capacitor good (see note 3)?

Y N

039

- Remove the jumper from TP K1 (if present).
 - Set the Unit Emergency switch to the Power Enable position (05-205).
- The A2 AC capacitor is bad.

040

- Remove the Jumper from TP K1 (if present).
 - Set the Unit Emergency switch to the Power Enable position (05-205).
- The A2 transformer is bad.

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MAP 0515-7

**A2 Supply - Any UV
5360 Systems Unit**

MAP 0516-1

PAGE 1 OF 6

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0511 | A | 1 | 001 |
| 0518 | A | 1 | 001 |
| 0599 | A | 1 | 001 |

**001
(Entry Point A)**

MAP DESCRIPTION:

This MAP locates the failing FRU for the A2 power supply.

ENTRY CONDITIONS:

The Power Check light is on.
The Power Status indicates Any UV condition.
CS light is on when Lamp Test is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

Upper maple block
Protect card
A2 transformer
A2 AC capacitor
A2 power assembly
Jumper card (JA2)
JA2 cable

Is the A2 power supply installed (05-205)?

Y N

002

The protect card is bad (05-220)
----or----
The upper maple block at JA2 is bad
----or----
The jumper card in JA2 is bad.

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MAP 0516-1

A
1

**A2 Supply - Any UV
5360 Systems Unit**

MAP 0516-2

PAGE 2 OF 6

003

- Set CB1 to the Off position (05-215).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Disconnect J51, J52 and J56 (05-250).
- Set CB1 to the On position (05-215).

To measure the DC outputs of the A2 power assembly:

- Connect the meter to the pins in table 1 for each DC voltage while you:
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily (see note 2).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Table 1
DC outputs A2 power assembly

| Supply DC voltage | Minimum Vdc | Pins to E12 |
|-------------------|-------------|-----------------|
| +36 | +33 | J51-1 J51-2 |
| -36 | -33 | J51-5 J51-6 |
| -12 | -11 | J51-7 |
| +36 | +33 | J52-1 J52-2 |
| -36 | -33 | J52-5 J52-6 |
| -12 | -11 | J52-7 |
| +5 | +4.5 | J56 all pins |

Do any outputs read less than the minimum Vdc?

Y N

Y
N

5 3
B C

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MAP 0516-2

C
2

A2 Supply - Any UV

5360 Systems Unit

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004

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J51, J52 and J56.
- Disconnect J54 (05-250).
- Connect the meter from J54-9 (+) to J54-4 (-) on cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

005

- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Disconnect JA2 (05-220).
- Connect the meter from JA2-B02 (+) to JA2-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

006

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

007

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The JA2 cable from JA2 to J54 is bad.

008

- Connect the meter from J54-3 (+) to J54-4 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

||
||

D E

D E

MAP 0516-3

009

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Reconnect J54.
- Disconnect JA2 (05-220).
- Connect the meter JA2-B03 (+) to JA2-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

010

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

011

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The JA2 cable from JA2 to J54 is bad.

012

- Connect the meter from J54-4 (+) to J54-5 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

013

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA2 (05-220).
- Connect the meter from JA2-B08 (+) to JA2-B06 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

||
||

4 4 4
F G H

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MAP 0516-3

F G H
3 3 3

A2 Supply - Any UV

MAP 0516-4

5360 Systems Unit

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014

- Set CB1 to the Off position (05-215).
- Reconnect JA2.

The upper maple block is bad

---or---

The protect card is bad (05-220).

015

- Set CB1 to the Off position (05-215).
- Reconnect JA2.

The JA2 cable from JA2 to J54 is bad.

016

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Connect the meter from J54-9 (+) to J54-4 (-) on the cable.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

017

The protect card is bad (05-220).

018

The A2 power assembly is bad (05-250).

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MAP 0516-4

019

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J51, J52 and J56.
- Disconnect J55, J60 and J61 (05-250).
- Set the meter to measure Vac.
- Set CB1 to the On position (05-215).
- Connect the meter to the pins for the failing level in table 2 for both sides of the winding.

**Table 2
AC outputs A2 transformer (05-250)**

| AC voltage | Minimum Vac | Pins |
|------------|-------------|---|
| +36 | 33 Vac | J55-1 to J61-1 and J55-2 to J61-2 |
| | 33 Vac | J55-3 to J61-3 and J55-4 to J61-4 |
| -36 | 11 Vac | J55-6 to J55-7 and J55-8 to J55-7 |
| | 11 Vac | J55-6 to J55-7 and J55-8 to J55-7 |
| -12 | 4.5 Vac | J60-1 to E15 |
| | 4.5 Vac | J60-2 to E15 |
| +5 | 4.5 Vac | J60-1 to E15 |
| | 4.5 Vac | J60-2 to E15 |

Does the meter read less than the minimum Vac for either side of the failing level of the transformer?

Y N

020

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 and TP GND.
 - Set the Unit Emergency switch to the Power Enable position (05-205).
 - Reconnect J51, J52 and J56.
- The A2 power assembly is bad (05-250).

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MAP 0516-5

5J

A2 Supply - Any UV

MAP 0516-6

5360 Systems Unit

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021

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J55, J60 and J61.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the Off position (05-215).

- Use the following procedure to test the A2 AC capacitor (05-250).

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Is the AC capacitor good (see note 3)?

Y N

022

The A2 AC capacitor is bad.

023

The A2 transformer is bad (05-250).

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0511 | A | 1 | 001 |
| 0599 | A | 1 | 001 |

001

(Entry Point A)

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 3 | 006 | 0516 | A |

MAP DESCRIPTION:

This MAP locates the failing FRU causing a UV on the A2 1.7V regulator.

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the A2 1.7V level is UV.
The CS light is on when the Lamp Test key is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- A2 1.7-volt regulator
- A2 DC cable
- JA2 cable
- Jumper card (JA2)

Is the A2 power supply installed (05-205)?

Y N

002

The protect card is bad (05-220)

----or----

The upper maple block at JA2 is bad

----or----

The jumper card in JA2 is bad.

A
1

**A2 1.7V Regulator UV
5360 Systems Unit**

MAP 0518-2

PAGE 2 OF 5

003

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set the meter to measure Vdc.
- Connect the meter from J66-2 (05-255) (+) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

A digital voltmeter is required to measure the 1.7V accurately.

Does the meter read more than 1.685 Vdc?

Y N

004

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J65-1 (05-255) (+) to ground (-) (05-220).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read between 4.5 and 5.5 Vdc?

Y N

005

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J56 (05-250).
- Connect the meter from J56-1 (+) to ground (-) (05-250).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read above 4.5 Vdc?

Y N

5 4 3 3
B C D E

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MAP 0518-2

D E
2 2

A2 1.7V Regulator UV

5360 Systems Unit

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006

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Reconnect J56.
 - Remove the jumper from TP K1 and TP GND.
- Go To Map 0516, Entry Point A.**

007

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J56.
- Disconnect J65 (05-255).
- Connect the meter from J65-1 (+) on the cable to ground (-) (05-220).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read between 4.5 and 5.5 Vdc?

Y N

008

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 and TP GND.
- The A2 DC cable from J56 to J65 is bad.

009

(Entry Point B)

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Disconnect J67 (05-255).
- Set CB1 to the On position (05-215).
- Connect the meter from J67-09 (+) to J67-08 (-) on the cable.
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read between 10.8 and 13.0 Vdc?

Y N

F G

F G

MAP 0518-3

010

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Reconnect J67.
- Disconnect JA2 (05-220).
- Connect the meter from JA2-B07 (+) to JA2-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 10.8 Vdc?

Y N

011

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

012

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The JA2 cable from JA2 to J67 is bad.

013

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Disconnect JA2.
- Set the meter to measure ohms.
- Connect the meter from J67-7 to JA2-D10 on the cable.

Does the meter read less than 10 ohms?

Y N

014

- Remove the jumper from TP K1 to TP GND.
 - Reconnect J67 and JA2.
- The JA2 cable from JA2 to J67 is bad.

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H

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MAP 0518-3

015

- Reconnect J67.
- Install jumper TP Reset to TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set the meter to measure Vdc.
- Connect the meter J66-2 (+) to ground (-).
- Set CB1 to the On position (05-215).
- Remove the jumper from TP reset to TP GND.

Logic problem with either A2 1.7V regulator assembly or protect card.

A digital voltmeter is required to measure the 1.7V accurately.

Does the meter read more than 1.685 Vdc?

Y N

016

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 to TP GND.
- Remove the jumper from TP RESET to TP GND.

The A2 1.7V regulator is bad.

017

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 to TP GND.
- Remove the jumper from TP RESET to TP GND.

The upper maple block is bad

---or---

The protect card is bad (05-220).

018

Go to Page 3, Step 009, Entry Point B.

019

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J67 (05-255).
- Connect the meter from J67-6 (+) on the cable to J67-8 (-) on the cable.
- Remove the jumper.
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 4.5 Vdc?

Y N

020

- Reconnect J67.
- Disconnect JA2 (05-220).
- Connect the meter from JA2-D13 on the upper maple block to ground (-).

Does the meter read more than 4.5 Vdc?

Y N

021

The protect card is bad (05-220)

---or---

The upper maple block at JA2 is bad.

022

The JA2 cable is bad.

023

- Reconnect J67.
- Connect the meter from J67-6 (+) to ground (-).

Does the meter read more than 4.5 Vdc?

Y N

024

The protect card is bad (05-220).

025

The A2 1.7V regulator is bad.

**Overcurrent Isolation On 21ED Drive
5360 Systems Unit**

MAP 0519-1

PAGE 1 OF 2

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0535 | A | 1 | 001 |
| 0537 | A | 1 | 001 |
| 0538 | A | 1 | 001 |

001

(Entry Point A)

- Disconnect the J1 and J2 cable from the driver card (95-225).
- Disconnect the B1A5 cable from the maple block (95-235).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

MAP DESCRIPTION:

This MAP isolates a FRU with a short circuit in the 21ED file.

ENTRY CONDITIONS:

CB1 is off.
All cables are reconnected.

START CONDITIONS:

The calling MAP identified the file A or B. All cables and cards refer to that file.

FRUs PARTIALLY TESTED:

Analog card
Digital card
Driver card
DC distribution cable
Maple block

Did the machine power on?

Y N

002

The DC distribution cable is bad.

A
1

Overcurrent Isolation

MAP 0519-2

5360 Systems Unit

PAGE 2 OF 2

003

- Select mode 6.
- Press the Power key (power off).
- Reconnect the B1A5 cable.
- Press the Power key (power on).

Did the machine power on?

Y N

004

The digital card is bad (95-235)

---or---

The analog card is bad (95-235)

---or---

The maple block is bad (95-235).

005

The driver card is bad (95-225).

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EC 826487

PEC 826380

MAP 0519-2

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0528 | A | 1 | 001 |
| 0529 | A | 1 | 001 |
| 0533 | A | 1 | 001 |
| 0535 | A | 1 | 001 |
| 0536 | A | 1 | 001 |
| 0538 | A | 1 | 001 |
| 0539 | A | 1 | 001 |
| 0540 | A | 1 | 001 |

001

(Entry Point A)

- To isolate failing FRUs from the board (note 1), do the following:
 - Remove all cards from socket positions A to K (note 2). Some of the cards may not be present.
 - Set CB1 to the On position (05-215).
 - Press the Power key (power on).

MAP DESCRIPTION:

This MAP isolates a FRU with a short circuit.

ENTRY CONDITIONS:

All cables have been reconnected. The problem has been isolated to one board. All card socket locations in this MAP are for the failing board that has already been isolated.

START CONDITIONS:

The calling MAP identified the board.

FRUs PARTIALLY TESTED:

All FRUs that can cause an overcurrent condition.

Note 1: The board is the A-A1, A-A2 or A-A3 board, as indicated below:

- Base overcurrent (A-A1 board)
- A2 overcurrent (A-A2 board)
- A3 overcurrent (A-A3 board)

Note 2: Do not remove any cables in these positions.

Does the machine power on?

| | |
|---|---|
| Y | N |
| | |

| | |
|---|---|
| 5 | 2 |
| A | B |

B
1

OC Isolation
5360 Systems Unit

MAP 0520-2

PAGE 2 OF 6

002

- Remove all cards from socket positions L to V (note 2) on the failing board (note 1).
- Press the Power key (power on).

Note 1: The board is the A-A1, A-A2 or A-A3 board, as indicated below:

- Base overcurrent (A-A1 board)
- A2 overcurrent (A-A2 board)
- A3 overcurrent (A-A3 board)

Note 2: Do not remove any cables in these positions.

Does the machine power on?

Y N

003

- Remove all cables from card side of board (note 1).
- Press the Power key (power on).

Does the machine power on?

Y N

004

Board or DC cable to board is bad (note 1).

- Reconnect all cables.
- Reinstall all cards.

005

One or more of the cables removed is failing.

- Select mode 6.
- Press the Power key (power off).
- Reinstall the cables one at a time and attempt power up until you identify the failing cable.
- Disconnect the other end of the failing cable.
- Press the Power key (power on).

Does the machine power on?

Y N

006

The cable is bad.

- Reinstall all cards and cables removed.

007

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

Does the failing cable go to the disk?

Y N

3 3 3
C D E

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MAP 0520-2

E
2

OC Isolation
5360 Systems Unit

PAGE 3 OF 6

008

Does the failing cable go to the diskette?

Y N

009

Does the failing cable go to the control panel?

Y N

010

Does the failing cable go to another board?

Y N

011

The cable is bad.

012

The failure is at the second board.

- Reinstall all cards and cables on the first board.
- Reinstall the cable at the second board and repeat this procedure for the second board except do not remove the failing cable when the MAP says to do so.

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

013

- Reinstall all cables and cards removed.
- The control panel is bad.

014

(Entry Point B)

- Remove the card from the diskette drive.
- Reinstall cables.
- Press the Power key (power on).

Does the machine power on?

Y N

015

- Reinstall cables and cards.
- The diskette drive is bad (circuit to ground).

016

The card removed is bad.

- Reinstall all cables and cards removed.

C D
2 2

MAP 0520-3

017

- Remove the cards from the failing disk board.
- Reinstall cables.
- Press the Power key (power on).

Does the machine power on?

Y N

018

- Reinstall all cables and cards removed.
- The disk is bad (short circuit to ground).

019

One or more of the cards in disk board has a short circuit to ground.

- Select mode 6.
- Press the Power key (power off).
- Install one card at a time to determine which card is bad.
- Press the Power key (power on).
- Isolate the faulty card.
- Reinstall all cables and cards removed.

020

- Select mode 6.
- Press the Power key (power off).
- Reinstall all cards removed earlier to locations A to Q.
- Press the Power key (power on).

Does the machine power on?

Y N

021

- Remove cards from locations N, P and Q.
- Press the Power key (power on).

Does the machine power on?

Y N

022

- Remove card at location M.
- Press the Power key (power on).

Does the machine power on?

Y N

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4 4 4 4
F G H J

MAP 0520-3

G H J
3 3 3

OC Isolation
5360 Systems Unit

PAGE 4 OF 6

023

Card at location L is bad.
- Reinstall other cards removed earlier.

024

- Select mode 6.
- Press the Power key (power off).
Card from location M is bad.
- Reinstall other cards removed earlier.

025

- Select mode 6.
- Press the Power key (power off).
- Reinstall the card to location N.
- Press the Power key (power on).

Does the machine power on?

Y N

026

Card at location N is bad.
- Reinstall other cards removed earlier.

027

- Select mode 6.
- Press the Power key (power off).
- Reinstall the card to location P.
- Press the Power key (power on).

Does the machine power on?

Y N

028

Card at location P is bad.
- Reinstall other cards removed earlier.

029

- Select mode 6.
- Press the Power key (power off).
Card from location Q is bad.
- Reinstall other cards removed earlier.

F
3

MAP 0520-4

030

- Select mode 6.
- Press the Power key (power off).
- Reinstall the cards to locations R and S.
- Press the Power key (power on).

Does the machine power on?

Y N

031

- Remove card from location S.
- Press the Power key (power on).

Does the machine power on?

Y N

032

Card at location R is bad.
- Reinstall other cards removed earlier.

033

- Select mode 6.
- Press the Power key (power off).
Card from location S is bad.
- Reinstall other cards removed earlier.

034

- Select mode 6.
- Press the Power key (power off).
- Reinstall the card to location T.
- Press the Power key (power on).

Does the machine power on?

Y N

035

Card at location T is bad.
- Reinstall other cards removed earlier.

036

- Select mode 6.
- Press the Power key (power off).
- Reinstall card to location U.
- Press the Power key (power on).

Does the machine power on?

Y N

5 5
K L

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MAP 0520-4

A K L
1 4 4

OC Isolation
5360 Systems Unit
PAGE 5 OF 6

037

- Card at location U is bad.
- Reinstall other cards removed earlier.

038

Card from location V is bad.

039

- Select mode 6.
- Press the Power key (power off).
- Reinstall the cards to socket position A to E.
- Press the Power key (power on).

Does the machine power on?

Y N

040

- Remove cards from locations C, D and E.
- Press the Power key (power on).

Does the machine power on?

Y N

041

- Remove all cards in location A.
- Press the Power key (power on).

Does the machine power on?

Y N

042

- Card in location B is bad.
- Reinstall all cards removed earlier.

043

- Select mode 6.
 - Press the Power key (power off).
 - Reinstall one card at a time to isolate the bad card.
- One or more of the cards from location A is bad.

M N

MAP 0520-5

044

- Select mode 6.
- Press the Power key (power off).
- Reinstall the cards to location C.
- Press the Power key (power on).

Does the machine power on?

Y N

045

- Card in location C is bad.
- Reinstall all other cards which were removed earlier.

046

- Select mode 6.
- Press the Power key (power off).
- Reinstall the cards to location D.
- Press the Power key (power on).

Does the machine power on?

Y N

047

- Card at location D is bad.
- Reinstall other cards which were removed earlier.

048

- Select mode 6.
 - Press the Power key (power off).
- Card from location E is bad.
- Reinstall other cards which were removed earlier.

049

- Select mode 6.
- Press the Power key (power off).
- Reinstall the cards to locations F and G.
- Press the Power key (power on).

Does the machine power on?

Y N

M N

6 6
P Q

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MAP 0520-5

P 0
5 5

**OC Isolation
5360 Systems Unit**

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050

- Remove the card from location F.
- Press the Power key (power on).

Does the machine power on?

Y N

051

Card in location G is bad.

- Reinstall all other cards removed earlier.

052

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

Card from location F is bad.

- Reinstall all other cards which were removed earlier.

053

- Select mode 6.
- Press the Power key (power off).
- Reinstall the card to location H.
- Press the Power key (power on).

Does the machine power on?

Y N

054

Card at location H is bad.

- Reinstall all other cards which were removed earlier.

055

- Select mode 6.
- Press the Power key (power off).
- Reinstall the card to location J.
- Press the Power key (power on).

Does the machine power on?

Y N

056

Card at location J is bad.

- Reinstall all other cards which were removed earlier.

R

MAP 0520-6

057

- Select mode 6.
- Press the Power key (power off).
- Reinstall the card to location K.
- Press the Power key (power on).

Does the machine power on?

Y N

058

Card at location K is bad.

059

A loose connection was the only problem.

R

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MAP 0520-6

No AC To Disk Drive A and B

MAP 0521-1

5360 Systems Unit

PAGE 1 OF 2

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0511 | A | 1 | 001 |

001
(Entry Point A)

MAP DESCRIPTION:
This MAP leads to the failing FRU that caused the no AC to drive symptom.

ENTRY CONDITIONS:
The machine is powered up (CB1 and power on).

START CONDITIONS:
None

FRUs PARTIALLY TESTED:
TB1
Terminal block jumper
AC cable

Does this machine have a 3-section circuit breaker (CB1) (05-210)?

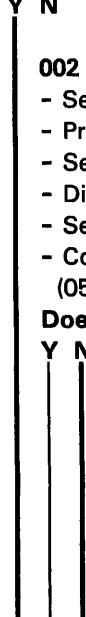
Y N

002

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Disconnect the line cord from the power outlet.
- Set the meter to measure ohms.
- Connect the meter from K1-4 (05-215) to TB1-3 (05-205 and 05-210).

Does the meter read more than 1 ohm?

Y N



2 2 2
A B C

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MAP 0521-1

A B C
1 1 1

No AC To Disk Drive A & B

MAP 0521-2

5360 Systems Unit

PAGE 2 OF 2

003

The AC cable is bad
(K1-3 to TB1-1)
---or---
(K1-3 to TB1-6).

004

- Connect the meter from TB1-3 to TB1-1.
Does the meter read more than 1 ohm?

Y N

005

The AC cable is bad (K1-4 to TB1-3).

006

A terminal block jumper is bad
---or---
Terminal block TB1 is bad.

007

Is the AC missing to File A?

Y N

008

The AC cable is bad
(open circuit K1-6 to TB1-4 or K1-7 to TB1-6)
---or---
The terminal block TB1 is bad
---or---
The terminal block jumper is bad.

009

The AC cable is bad
(open circuit K1-6 to TB1-4 or K1-5 to TB1-1)
---or---
The terminal block TB1 is bad
---or---
The terminal block jumper is bad.

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MAP 0521-2

No AC Voltage To Power Fan

MAP 0522-1

5360 Systems Unit

PAGE 1 OF 2

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0511 | A | 1 | 001 |
| 0582 | A | 1 | 001 |

001

(Entry Point A)

MAP DESCRIPTION:

This MAP leads the CE/CSR to the failing FRU that caused the power fan not to turn.

ENTRY CONDITIONS:

The machine can power up but the power fan is not turning.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- AC cable
- TB1
- Power fan

Does this machine have a 3-section circuit breaker (CB1) (05-210)?

Y N

002

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Disconnect the line cord from the power outlet.
- Set the meter to measure ohms.
- Disconnect J05 (05-205).
- Connect the meter from K1-4 (05-215) to J05-3 (05-205) on the AC cable.

Does the meter read less than 1 ohm?

Y N



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MAP 0522-1

B C
1 1

**No AC Voltage To Power Fan
5360 Systems Unit**

PAGE 2 OF 2

003

- Connect the meter from J05-3 on the AC cable to TB1-1 (05-205).

Does the meter read less than 1 ohm?

Y N

004

- Reconnect J05.

The AC cable is bad (TB1-1 to J05-3)

---or---

TB1 is bad.

005

- Reconnect J05.

The AC cable is bad (K1-4 to TB1-1).

006

- Connect the meter from K1-3 to J05-1 on the AC cable.

Does the meter read less than 1 ohm?

Y N

007

- Connect the meter from J05-1 on the AC cable to TB1-4.

Does the meter read more than 1 ohm?

Y N

008

- Reconnect J05.

The AC cable is bad (TB1-3 to TB1-4).

009

- Reconnect J05.

The AC cable is bad (TB1-4 to J05-1)

---or---

TB1 is bad.

A D
1 1

MAP 0522-2

010

- Reconnect J05.

- Reconnect the line cord.

- Set CB1 to the On position (05-215).

- Press the Power key (power on).

Is the power fan turning?

Y N

011

The power fan is bad.

012

A loose connection was the only problem.

013

The AC cable is bad

(open circuit K1-6 to TB1-4, K1-7 to TB1-6, TB1-6 to J05-1 or TB1-3 to J05-3)

---or---

The terminal block TB1 is bad

---or---

The terminal block jumper is bad.

D

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PEC 826380

MAP 0522-2

No AC Voltage To Gate Fans

MAP 0523-1

5360 Systems Unit

PAGE 1 OF 2

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0511 | A | 1 | 001 |
| 0582 | A | 1 | 001 |

001

(Entry Point A)

MAP DESCRIPTION:

This MAP leads the CE/CSR to the failing FRU that caused the fan failure.

ENTRY CONDITIONS:

The machine can power up but the gate fans are not turning.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

TB1
AC cable
Fan box

Does this machine have a 3-section circuit breaker (CB1) (05-210)?

Y N

002

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Disconnect the line cord from the power outlet.
- Set the meter to measure ohms.
- Disconnect J06 (05-205).
- Connect the meter from K1-4 to J06-1 on the AC cable.

Does the meter read less than 1 ohm?

Y N

Y N
 Y N
 Y N

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MAP 0523-1

2 2 2
A B C

B C
1 1

No AC Voltage To Gate Fans
5360 Systems Unit

PAGE 2 OF 2

003

- Connect the meter from J06-1 on the AC cable to TB1-1 (05-205).

Does the meter read less than 1 ohm?

Y N

004

- Reconnect J06.
The AC cable is bad (TB1-1 to J06-1)
---or---
TB1 is bad.

005

- Reconnect J06.
The AC cable is bad (K1-4 to TB1-1).

006

- Connect the meter from K1-3 to J06-3 on the AC cable.

Does the meter read less than 1 ohm?

Y N

007

- Connect the meter from J06-3 on the AC cable to TB1-4.

Does the meter read less than 1 ohm?

Y N

008

- Reconnect J06.
The AC cable is bad (TB1-3 to TB1-4).

009

- Reconnect J06.
The AC cable is bad (TB1-4 to J06-3)
---or---
TB1 is bad.

A D
1 1

MAP 0523-2

010

- Reconnect J06.
- Reconnect the line cord.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Are the gate fans turning?

Y N

011

The gate fan box is bad.

012

A loose connection was the only problem.

013

The AC cable is bad
(open circuit K1-5 to TB1-1, TB1-1 to J06-1, K1-6 to TB1-4 or TB1-5 to J06-3)

---or---

The terminal block TB1 is bad

---or---

The terminal block jumper is bad.

D

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PEC 826380

MAP 0523-2

No AC To Diskette AC Motor
5360 Systems Unit

MAP 0524-1

PAGE 1 OF 2

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| D203 | A | 1 | 001 |
| D205 | A | 1 | 001 |
| 0105 | A | 1 | 001 |
| 0511 | A | 1 | 001 |

001
(Entry Point A)

MAP DESCRIPTION:

This MAP leads the CE/CSR to the failing FRU that caused AC to be missing at diskette drive.

ENTRY CONDITIONS:

The machine is powered up but the diskette is not turning.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

TB1
 AC cable
 Diskette drive motor

Does this machine have a 3-section circuit breaker (CB1) (05-210)?

Y N

Two vertical lines representing the Y and N response paths for the question above.

2 2
 A B

B
1

**No AC To Diskette AC Motor
5360 Systems Unit**

PAGE 2 OF 2

002

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Disconnect the line cord from the power outlet.
- Set the meter to measure ohms.
- Disconnect J07 (05-205).
- Connect the meter from K1-4 to J07-1 on the AC cable.

Does the meter read less than 1 ohm?

Y N

003

- Connect the meter from J07-1 on the AC cable to TB1-1 (05-205).

Does the meter read less than 1 ohm?

Y N

004

- Reconnect J07.
- The AC cable is bad (TB1-1 to J07-1)
---or---
TB1 is bad.

005

- Reconnect J07.
- The AC cable is bad (K1-4 to TB1-1).

006

- Connect the meter from K1-3 to J07-3 on the AC cable.

Does the meter read less than 1 ohm?

Y N

007

- Connect the meter from J07-3 on the AC cable to TB1-4.

Does the meter read less than 1 ohm?

Y N

008

- Reconnect J07.
- The AC cable is bad (TB1-3 to TB1-4).

C D

A C D
1

MAP 0524-2

009

- Reconnect J07.
- The AC cable is bad (TB1-4 to J07-3)
---or---
TB1 is bad.

010

- Reconnect J07.
- Reconnect the line cord to the power outlet.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Is the diskette turning?

Y N

011

- The diskette drive motor is bad.

012

- A loose connection was the only problem.

013

- The AC cable is bad
(open circuit K1-5 to TB1-1, TB1-1 to J07-1, K1-6 to TB1-4 or TB1-4 to J07-3)
---or---
The terminal block TB1 is bad
---or---
The terminal block jumper is bad.

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PEC 826380

MAP 0524-2

**No AC To Disk Fan
5360 Systems Unit**

MAP 0525-1

PAGE 1 OF 2

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0511 | A | 1 | 001 |

001
(Entry Point A)

MAP DESCRIPTION:
This MAP leads the CE/CSR to the failing FRU that caused the fan failure.

ENTRY CONDITIONS:
The machine can power up but the disk fan is not turning.

START CONDITIONS:
None

FRUs PARTIALLY TESTED:
AC cable
Disk fan
TB1

Does this machine have a 3-section circuit breaker (CB1) (05-210)?

Y N

002

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Disconnect the line cord from the power outlet.
- Set the meter to measure ohms.
- Disconnect J08 (05-205).
- Connect the meter from K1-4 to J08-1.

Does the meter read less than 1 ohm?

Y N

2 2 2
A B C

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MAP 0525-1

B C
1 1

**No AC To Disk Fan
5360 Systems Unit**

PAGE 2 OF 2

003

- Connect the meter from J08-1 to TB1-1 (05-205).

Does the meter read less than 1 ohm?

Y N

004

- Reconnect J08.

The AC cable is bad (TB1-1 to J08-1)

---or---

TB1 is bad.

005

- Reconnect J08.

The AC cable is bad (K1-4 to TB1-1).

006

- Connect the meter from K1-3 to J08-3.

Does the meter read less than 1 ohm?

Y N

007

- Connect the meter from J08-3 to TB1-4.

Does the meter read less than 1 ohm?

Y N

008

- Reconnect J08.

The AC cable is bad (TB1-4 to J08-3)

---or---

TB1 is bad.

009

- Reconnect J08.

The AC cable is bad (TB1-3 to TB1-4).

010

- Reconnect J08.

- Reconnect the line cord to the power outlet.

- Set CB1 to the On position (05-215).

- Press the Power key (power on).

Does the disk fan turn?

Y N

1 1

D E

A D E
1 1 1

MAP 0525-2

011

The disk fan is bad.

012

A loose connection was the only problem.

013

The AC cable is bad

(open circuit K1-5 to TB1-1, TB1-2 to J08-1, K1-6 to TB1-4 or TB1-5 to J08-3)

---or---

The terminal block TB1 is bad

---or---

The terminal block jumper is bad.

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MAP 0525-2

A2 Supply - Disk Drive OC

MAP 0527-1

5360 Systems Unit

PAGE 1 OF 4

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 3 | 024 | 9750 | A |
| 4 | 026 | 9750 | A |

001

(Entry Point A)

MAP DESCRIPTION:

This MAP locates a failing FRU for the A2 power supply.

ENTRY CONDITIONS:

The Power Check light is on.
The Power Status indicates A2 OC condition.
CS light is on when Lamp Test is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Jumper card (JA2)
- A2 power assembly
- A2 transformer
- JA2 cable

Is the A2 power supply installed (05-205)?

Y N

002

The protect card is bad (05-220)

---or---

The upper maple block is bad at JA2

---or---

The jumper card at JA2 is bad.

A
1

A2 Supply - Disk Drive OC

5360 Systems Unit

PAGE 2 OF 4

003

- Set CB1 to the Off position (05-215).
- Disconnect J51 (05-250).
- Disconnect J52 (05-250).
- Disconnect J54 (05-250).
- Disconnect J56 (05-250).
- Disconnect E12 (05-250).
- Set the meter to measure ohms.
- Connect the meter from E12 (on the board) to ground.

Does the meter read more than 10 K ohms?

Y N

004

- Reconnect all cables.
- A2 power assembly is bad
---or---
A2 transformer is bad.

005

- Reconnect J54.
- Reconnect J56.
- Reconnect E12 (05-250).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

006

- Set CB1 to the Off position (05-215).
- Reconnect J51 and J52.
- Disconnect J54 (05-250).
- Set the meter to measure Vdc.
- Connect the meter from J54-7 (+) to J54-4 (-) on the cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

3
B C D

C D

MAP 0527-2

007

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Disconnect JA2 (05-220).
- Connect the meter from JA2-D06 (+) to JA2-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

008

- Set CB1 to the Off position (05-215).
 - Reconnect all cables.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

009

- Set CB1 to the Off position (05-215).
 - Reconnect all cables.
- The JA2 cable from JA2 to J54 is bad.

010

- Connect the meter from J54-3 (+) to J54-4 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

011

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Disconnect JA2 (05-220).
- Connect the meter JA2-B03 (+) to JA2-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

012

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

3
E F

15Feb84 PN 4177309

EC 826487 PEC 826380

MAP 0527-2

E F
2 2

A2 Supply - Disk Drive OC

5360 Systems Unit

PAGE 3 OF 4

013

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The JA2 cable from JA2 to J54 is bad.

014

- Connect the meter from J54-4 (+) to J54-5 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

015

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Connect the meter from JA2-B08 (+) to JA2-B06 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

016

- Set CB1 to the Off position (05-215).
- Reconnect JA2.

The protect card is bad (05-220)

---or---

The upper maple block is bad.

017

- Set CB1 to the Off position (05-215).
- Reconnect JA2.

The JA2 cable from JA2 to J54 is bad.

018

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Connect the meter from J54-7 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

G H

B G H
2 2

MAP 0527-3

019

- Press the Power key (power on).
- Does the machine power on?**

Y N

020

The protect card is bad (05-220)

---or---

The A2 power assembly is bad.

021

A loose connection was the only problem.

022

The A2 power assembly is bad.

023

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J51.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

024

- Set CB1 to the Off position (05-215).
- Reconnect J52.

- Set CB1 to the On position (05-215).

To find a short circuit in disk drive A,

Go To Map 9750, Entry Point A.

025

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J52.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

4 4
J K

15Feb84

PN 4177309

EC 826487

PEC 826380

MAP 0527-3

J K
3 3

A2 Supply - Disk Drive OC:

MAP 0527-4

5360 Systems Unit

PAGE 4 OF 4

026

To find a short circuit in disk drive B,
Go To Map 9750, Entry Point A.

027

Intermittent short circuit in the cable to a disk drive

---or---

Intermittent short circuit in a disk drive.

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PEC 826380

MAP 0527-4

5360 Systems Unit

PAGE 1 OF 4

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 4 | 026 | 0520 | A |

001

(Entry Point A)

MAP DESCRIPTION:

This MAP locates the failing FRU for the A2 power supply.

ENTRY CONDITIONS:

The Power Check light is on.
The Power Status indicates A2 +5V condition.
CS light is on when Lamp Test is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Jumper card (JA2)
- A2 transformer
- A2 power assembly
- A2 1.7-volt regulator
- JA2 cable
- Jumper assembly (J59)
- A2 DC cable

Is the A2 power supply installed (05-205)?

Y N

002

The protect card is bad (05-220)
 ---or---
 The upper maple block is bad at JA2
 ---or---
 The jumper card in JA2 is bad.

A
1

A2 Supply - +5V OC

5360 Systems Unit

PAGE 2 OF 4

003

- Set CB1 to the Off position (05-215).
- Disconnect J51 (05-250).
- Disconnect J52 (05-250).
- Disconnect J54 (05-250).
- Disconnect J56 (05-250).
- Disconnect E12 (05-250).
- Set the meter to measure ohms.
- Connect the meter from E12 (on the A2 power assembly (05-250)) to ground.

Does the meter read more than 10 k-ohm?

Y N

004

- Disconnect J55 (05-250).
- Disconnect J60 (05-250).
- Disconnect J61 (05-250).
- Disconnect E15 (05-250).
- Connect the meter E12 (on the board) to ground.

Does the meter read more than 10 k-ohm?

Y N

005

- Reconnect J51.
 - Reconnect J52.
 - Reconnect J54.
 - Reconnect J55.
 - Reconnect J56.
 - Reconnect J60.
 - Reconnect J61.
 - Reconnect E12.
 - Reconnect E15.
- The A2 power assembly is bad.

B C

B C

MAP 0528-2

006

- Reconnect J51.
 - Reconnect J52.
 - Reconnect J54.
 - Reconnect J55.
 - Reconnect J56.
 - Reconnect J60.
 - Reconnect J61.
 - Reconnect E12.
 - Reconnect E15.
- The A2 transformer is bad.

007

- Disconnect J59 jumper.
- Connect the meter from J59-4 to J59-5 on the jumper.

Does the meter read less than 1 ohm?

Y N

008

- Reconnect J51.
 - Reconnect J52.
 - Reconnect J54.
 - Reconnect J56.
 - Reconnect J59.
 - Reconnect E12.
- The jumper assembly at J59 is bad (pin 4 to pin 5).

009

- Reconnect J51.
- Reconnect J52.
- Reconnect J54.
- Reconnect J59.
- Reconnect E12.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Press and hold the Power Status key.

Do the Power Status lights indicate CS, UV, 8, 2, 1?

Y N

4 3
D E

15Feb84 PN 4177310
 EC 826487 PEC 826380
 MAP 0528-2

E
2

A2 Supply - +5V OC

5360 Systems Unit

PAGE 3 OF 4

010

- Set CB1 to the Off position (05-215).
- Reconnect J56.
- Disconnect J54 (05-250).
- Set the meter to measure Vdc.
- Connect the meter from J54-6 (+) to J54-4 (-) on cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

011

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Disconnect JA2 (05-220).
- Connect the meter from JA2-D05 (+) to JA2-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

012

The upper maple block is bad

---or---

The protect card is bad (05-220).

013

The JA2 cable from JA2 to J54 is bad.

014

- Connect the meter from J54-3 (+) to J54-4 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

F G

F G

MAP 0528-3

015

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Disconnect JA2 (05-220).
- Connect the meter JA2-B03 (+) to JA2-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

016

- Set CB1 to the Off position (05-215).
- Reconnect JA2.

The upper maple block is bad

---or---

The protect card is bad (05-220).

017

- Set CB1 to the Off position (05-215).
- Reconnect JA2.

The JA2 cable from JA2 to J54 is bad.

018

- Connect the meter from J54-4 (+) to J54-5 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

019

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Disconnect JA2 (05-220).
- Connect the meter from JA2-B08 (+) to JA2-B06 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

020

- Set CB1 to the Off position (05-215).
- Reconnect JA2.

The upper maple block is bad

---or---

The protect card is bad (05-220).

4 4
H J

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EC 826487 PEC 826380

MAP 0528-3

D H J
2 3 3

A2 Supply - +5V OC

MAP 0528-4

5360 Systems Unit

PAGE 4 OF 4

021

- Set CB1 to the Off position (05-215).
- Reconnect JA2.

The JA2 cable from JA2 to J54 is bad.

022

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Connect the meter from J54-6 (+) to J54-4 (-) on cable.
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

023

The protect card is bad (05-220).

024

The A2 power assembly is bad.

025

- Set CB1 to the Off position (05-215).
- Reconnect J56.
- Disconnect J65 (05-255).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Press and hold the Power Status key.

Do the Power Status lights indicate CS, UV, 8, 2,

1?

Y N

026

- Set CB1 to the Off position (05-215).
- Reconnect J65.

To find a short circuit on the A2 board,

Go To Map 0520, Entry Point A.

027

- Set CB1 to the Off position (05-215).
- Reconnect J65.

The A2 1.7V regulator is bad.

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PN 4177310

EC 826487

PEC 826380

MAP 0528-4

B
2

A2 1.7V OC

MAP 0529-3

5360 Systems Unit

PAGE 3 OF 3

015

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Disconnect the 1.7V test jumper from J66.
- Reconnect J66.

To find a short circuit on the A-A2 board,
Go To Map 0520, Entry Point A.

15Feb84 PN 4177311

EC 826487 PEC 826380

MAP 0529-3

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 3 | 015 | 0520 | A |

001

(Entry Point A)

MAP DESCRIPTION:

This MAP locates the cause of the OC condition. The A2 1.7V regulator has an overcurrent condition.

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the base 1.7V regulator is OC.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Jumper card (JA2)
- A2 1.7-volt regulator
- JA2 cable
- A2 DC cable

Is the A2 power supply installed (05-205)?

Y N

002

The protect card is bad (05-220)

---or---

The upper maple block at JA2 is bad

---or---

The jumper card in JA2 is bad.

A
1

A2 1.7V OC
5360 Systems Unit
PAGE 2 OF 3

003

- Set CB1 to the Off position (05-215).
- Disconnect J66 (05-255).
- Connect the 1.7V test jumper (05-270) in J66.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

004

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7V test jumper from J66.
- Reconnect J66.
- Disconnect J67 (05-255).
- Set the meter to measure Vdc.
- Connect the meter from J67-4 (+) to J67-8 (-) on the cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

005

- Set CB1 to the Off position (05-215).
- Reconnect J67.
- Disconnect JA2 (05-220).
- Set CB1 to the On position (05-215).
- Connect the meter from JA2-D12 (+) to JA2-B08 on the upper maple block.

Does the meter read more than 4.5 Vdc?

Y N

006

The upper maple block is bad
---or---
The protect card is bad (05-220).

007

The JA2 cable from JA2 to J67 is bad.

C

MAP 0529-2

008

- Connect the meter from J67-9 (+) to J67-8 (-) on the cable.

Does the meter read more than 11 Vdc?

Y N

009

- Reconnect J67.
- Disconnect JA2 (05-220).
- Connect the meter from JA2-B07 (+) to JA2-B08 (-).

Does the meter read more than 11 Vdc?

Y N

010

- Reconnect JA2.
The upper maple block is bad
---or---
The protect card is bad (05-220).

011

- Reconnect JA2.
The JA2 cable from JA2 to J67 is bad.

012

- Set CB1 to the Off position (05-215).
- Reconnect J67.
- Connect the meter from J67-4 (+) to J67-8 (-).
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

013

The protect card is bad (05-220).

014

The A2 1.7V regulator is bad.

3
B C

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EC 826487 PEC 826380
MAP 0529-2

A B
1 1

**A3 All UV
5360 Systems Unit**

PAGE 2 OF 12

002

The protect card is bad (05-220)

---or---

The upper maple block is bad at JA4

---or---

The jumper card at JA4 is bad.

003

Is the A3 1.7-volt regulator/preload assembly (05-262) installed?

Y N

004

- Set CB1 to the Off position (05-215).

- Remove fuse F4 from the AC box (05-215).

Is fuse F4 good?

Y N

005

- Install a good fuse for fuse F4.

- Set CB1 to the On position (05-215).

- Press the Power key (power on).

Does the machine power on?

Y N

006

- Set CB1 to the Off position (05-215).

- Remove F4.

Is fuse F4 good?

Y N

007

- Install a good fuse for fuse F4.

- Disconnect J04 (05-260).

- Set CB1 to the On position (05-215).

- Press the Power key (power on).

- Set CB1 to the Off position (05-215).

- Remove F4.

Is fuse F4 good?

Y N

E F G H

MAP 0530-2

008

- Install a good fuse for fuse F4.

- Reconnect J04.

The AC cable is bad

---or---

The AC fuse holder for fuse F4 is bad

---or---

Relay K1 is bad.

009

- Reinstall F4.

- Reconnect J04.

- Disconnect J73 and J79 (05-260).

- Set CB1 to the On position (05-215).

- Press the Power key (power on).

- Set CB1 to the Off position (05-215).

- Remove F4.

Is fuse F4 good?

Y N

010

- Install a good fuse for fuse F4.

Go to Page 12, Step 062, Entry Point B.

011

- Reinstall F4.

- Reconnect J73 and J79.

The A3 power assembly is bad.

012

- Set CB1 to the On position (05-215).

- Reinstall F4.

The bad fuse was caused by another problem.

Go To Map 0500, Entry Point B.

013

The bad fuse was the only problem.

5 3
C D E F G H

04Dec84

PN 4177312

EC 839954

PEC 826487

MAP 0530-2

014

- Reinstall F4.
- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J73 and J79 (05-260) on the transformer.
- Set the meter to measure Vac.
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Connect the meter from J79-1 (+) to J79-5 (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Does the meter read more than 9.0 Vac?

Y N

015

- Set CB1 to the Off position (05-215).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J73 and J79.
- Disconnect J04 (05-260).
- Set the meter to measure Vac (highest range).
- Connect the meter from J04-1 to J04-4 on the AC cable.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than 180 Vac?

Y N

016

- Remove the jumper from TP K1 to TP GND on the protect card.
 - Reconnect J04.
- The AC cable is bad.
(open circuit K1-3 to J04-4)
(open circuit or shorted to ground F3 to J04-1)
(open circuit F3 to F4)
---or---
The AC fuse holder for F4 is bad.

J
3
K
3

A3 All UV
5360 Systems Unit
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017

- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J04.
- Set CB1 to the Off position (05-215).

Go to Page 12, Step 062, Entry Point B.

018

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J73 and J79.
- Disconnect J72 (05-260) (the cable retainer must be removed first).
- Set the meter to measure Vdc.
- Connect the meter from J72-D03 (+) on the cable to J72-D08 (-).

Does the meter read more than +4.5 Vdc?

Y N

019

- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B03 (+) to JA4-B08 (-) on the upper maple block.

Does the meter read more than +4.5 Vdc?

Y N

020

- Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

021

- Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

L

MAP 0530-4

022

- Connect the meter from J72-D08 (+) to J72-D06 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

023

- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B08 (+) to JA4-B06 (-) on the upper maple block.

Does the meter read more than +4.5 Vdc?

Y N

024

- Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

025

- Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

026

- Connect the meter from J72-D05 (+) to J72-D08 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

L

5 5
M N

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MAP 0530-4

M N
4 4

A3 All UV

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027

- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B05 (+) to JA4-B08 (-) on the upper maple block.

Does the meter read more than +4.5 Vdc?

Y N

028

- Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

029

- Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

030

- Reconnect J72.
- Connect the meter from J72-D05 (+) to J72-D08 (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than +4.5 Vdc?

Y N

031

- Remove the jumper from TP K1 to TP GND on the protect card.
- The A3 power assembly is bad.

032

- Remove the jumper from TP K1 to TP GND on the protect card.
- The protect card is bad (05-220).

C
2

MAP 0530-5

033

- Set CB1 to the Off position (05-215),
- Remove fuse F4 from the AC box (05-215).

Is fuse F4 good?

Y N

034

- Install a good fuse for fuse F4.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

035

- Set CB1 to the Off position (05-215).
- Remove F4.

Is fuse F4 good?

Y N

036

- Install a good fuse for fuse F4.
- Disconnect J04 (05-261).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Set CB1 to the Off position (05-215).
- Remove F4.

Is fuse F4 good?

Y N

037

- Install a good fuse for fuse F4.
 - Reconnect J04.
- The AC cable is bad
---or---
The AC fuse holder for fuse F4 is bad
---or---
Relay K1 is bad.

7 6 6 6
P Q R S

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MAP 0530-5

Q R S
5 5 5

A3 All UV

MAP 0530-6

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038

- Reinstall F4.
- Reconnect J04.
- Disconnect J73 (05-261).
- Disconnect E19 (05-261).
- Disconnect the wire at diode D7 (05-261).
- Disconnect the wire at diode D8 (05-261).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Set CB1 to the Off position (05-215).
- Remove F4.

Is fuse F4 good?

Y N

039

- Install a good fuse for fuse F4.

Go to Page 12, Step 062, Entry Point B.

040

- Reinstall F4.
- Reconnect E19.
- Reconnect the wire at diode D7.
- Reconnect the wire at diode D8.

The A3 power assembly is bad.

041

- Set CB1 to the On position (05-215).
- Reinstall F4.

The bad fuse was caused by another problem.

Go To Map 0500, Entry Point B.

042

The bad fuse was the only problem.

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EC 839954 PEC 826487
MAP 0530-6

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043

- Reinstall F4.
- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect E19 (05-261).
- Disconnect the wire at diode D7 (05-261).
- Disconnect the wire at diode D8 (05-261).
- Disconnect J73 (05-261).
- Set the meter to measure Vac.
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Connect the meter on the wires removed from diodes D7 and D8 (see note 3).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Note 3: Meter on the disconnected transformer leads (wires removed from diodes D7 and D8 only).

Does the meter read more than 9.0 Vac?

Y N

044

- Set CB1 to the Off position (05-215).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect E19.
- Reconnect the wire at diode D7.
- Reconnect the wire at diode D8.
- Reconnect J73.
- Disconnect J04.
- Set the meter to measure Vac (highest range).
- Connect the meter from J04-1 to J04-4 on the AC cable.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than 180 Vac?

Y N



8 8 8
T U V

T U V
7 7 7

A3 All UV
5360 Systems Unit

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045

Remove the jumper from the protect card.
- Reconnect J04.
The AC cable is bad.
(open circuit K1-3 to J04-4) (single phase machines only)
(open circuit or shorted to ground F3 to J04-1)
(open circuit K1-6 to J04-4 (dual phase machines only))
---or---
(open circuit F3 to F4)
---or---
The AC fuse holder for F4 is bad.

046

- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J04.
- Set CB1 to the Off position (05-215).
Go to Page 12, Step 062, Entry Point B.

047

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect E19.
- Reconnect the wire at diode D7.
- Reconnect the wire at diode D8.
- Reconnect J73.
- Disconnect J72 (05-261) (the cable retainer must be removed first).
- Set the meter to measure Vdc.
- Connect the meter from J72-D03 (+) on the cable to J72-D08 (-).

Does the meter read more than +4.5 Vdc?

Y N

Y N

W X

W X

MAP 0530-8

048

- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B03 (+) to JA4-B08 (-) on the upper maple block.

Does the meter read more than +4.5 Vdc?

Y N

049

- Reconnect JA4.
The upper maple block is bad
---or---
The protect card is bad (05-220).

050

- Reconnect JA4.
The JA4 cable from JA4 to J72 is bad.

051

- Connect the meter from J72-D08 (+) to J72-D06 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

052

- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B08 (+) to JA4-B06 (-) on the upper maple block.

Does the meter read more than +4.5 Vdc?

Y N

Y N
9 9 A
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MAP 0530-8

Y Z A
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A3 All UV
5360 Systems Unit

MAP 0530-9

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053

- Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

054

- Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

055

- Connect the meter from J72-D05 (+) to J72-D08 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

056

- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B05 (+) to JA4-B08 (-) on the upper maple block.

Does the meter read more than +4.5 Vdc?

Y N

057

- Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

058

- Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

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MAP 0530-9

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**A3 All UV
5360 Systems Unit**

MAP 0530-10

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059

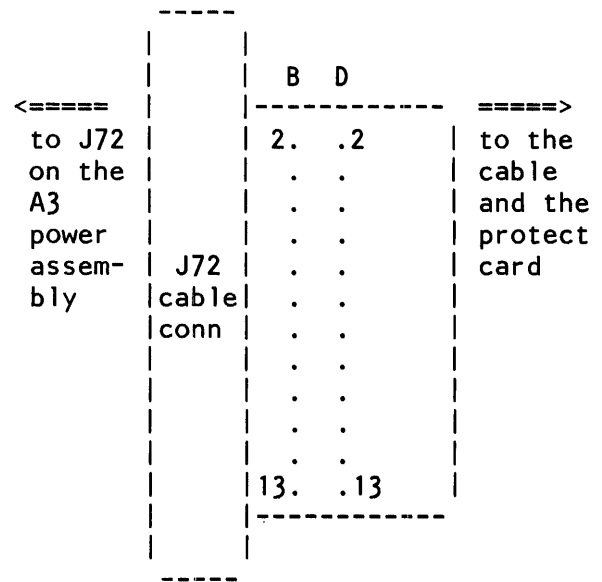
- Reconnect J72.
- Connect the meter from J72-D05 (+) to J72-D08 (-) on the A3 power assembly (see note 4).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Note 4:

If you have trouble measuring voltage on the D-side of J72, then proceed as follows:

- (1) Remove the gray plastic connector guide from the J72 cable.
- (2) Meter on the B-side of J72. Shown below is a pin-out diagram for the B-side of J72.

Use frame ground for J72-D08 (-) if you cannot probe both points at the same time.



Does the meter read more than +4.5 Vdc?

Y N

060

- Remove the jumper from TP K1 to TP GND on the protect card.
- The A3 power assembly is bad.

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MAP 0530-10

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A3 All UV

MAP 0530-11

5360 Systems Unit

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061

- Remove the jumper from TP K1 to TP GND on the protect card.

The protect card is bad (05-220).

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MAP 0530-11

5360 Systems Unit

062

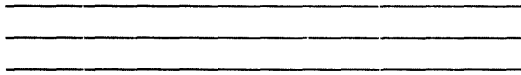
(Entry Point B)

- Set CB1 to the Off position (05-215).
- Use the following procedure to test the A3 AC capacitor (05-260/05-261) (see note 5);

Note 5: The AC capacitor may be removed to be tested.

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



Note 6: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Is the AC capacitor good (see note 6)?

Y N

063

The A3 AC capacitor is bad.

064

The A3 transformer is bad (05-260).

**A3 Supply - Any UV
5360 Systems Unit**

MAP 0531-1

PAGE 1 OF 20

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0511 | A | 1 | 001 |
| 0599 | A | 1 | 001 |

001
(Entry Point A)

MAP DESCRIPTION:

This MAP locates the failing FRU for the A3 power supply with built-in 1.7-volt regulator and the A3 power supply with separate 1.7-volt regulator/preload assembly.

ENTRY CONDITIONS:

The Power Check light is on.

The Power Status indicates Any UV condition on the A3 supply. CS light is on when Lamp Test is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Upper maple block
- Protect card
- Jumper card (JA4)
- A3 transformer
- A3 AC capacitor
- A3 power assembly
- E14 ground wire
- JA4 cable
- AC fuse holder F4
- AC cable
- A3 1.7-volt regulator/preload assembly
- A3 1.7-volt regulator cable (from J74 to J70)

Is the A3 power supply installed (05-260/05-261)?

Y N
| |
2 2
A B

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MAP 0531-1

A B
1 1

**A3 Supply - Any UV
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MAP 0531-2

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002

The protect card is bad (05-220)

---or---

The upper maple block is bad at JA4

---or---

The jumper card at JA4 is bad.

003

**Is the A3 1.7-volt regulator/preload assembly
(05-262) installed?**

Y N

004

- Set CB1 to the Off position (05-215).

- Set the meter to measure ohms.

- Connect the meter from E14 (05-260) to ground.

Does the meter read less than 1 ohm?

Y N

005

The E14 ground wire from E14 to the DC ground
board is bad.

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MAP 0531-2

006

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Disconnect J75 (05-260).
- Connect the 1.7-volt test jumper (05-270) in J75.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

To measure the DC outputs of A3 power supply:

- Set the Unit Emergency switch (05-205) to the Power Enable position momentarily for each measurement.
- Connect the meter to the pins in table 1 for each DC voltage.

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Table 1
DC outputs A3 power supply

| Supply DC voltage | Minimum Vdc | J75 pins to E14(-) |
|-------------------|-------------|--------------------|
| +8.5 | +8 | 12 |
| +5 | +4.5 | 07,8,9,10,11 |
| +1.7 | +1.685* | 01,4 |
| -5 | -4.5 | 05 |
| -12 | -11 | 06 |

* A digital voltmeter is required to measure the 1.7-volt accurately.

Does the meter read less than the minimum Vdc for any output?

Y N

007

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J75.
- Reconnect J75.
- Disconnect J04 (05-260).
- Set the meter to measure Vac (highest range).
- Connect the meter from J04-1 to J04-4 on the AC cable.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily (see note 2).

Does the meter read more than 180 VAC?

Y N

6 4 4
E F G

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

F G
3 3

A3 Supply - Any UV

5360 Systems Unit

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008

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Set CB1 to the Off position (05-215).
 - Remove the jumper from TP K1 to TP GND on the protect card.
 - Reconnect J04.
- The AC cable is bad.
(open circuit K1-3 to J04-4)
(open circuit or shorted to ground F3 to J04-1)
(open circuit F3 to F4)
---or---
- The AC fuse holder for F4 is bad.

009

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J04.
- Disconnect J72 (05-260) (the cable retainer must be removed first).
- Set the meter to measure Vdc.
- Connect the meter from J72-D04 (+) to J72-D08 (-) on the cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

010

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B04 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

H J K

H J K

MAP 0531-4

011

- Reconnect JA4.
- The upper maple block is bad
---or---
- The protect card is bad (05-220).

012

The JA4 cable from JA4 to J72 is bad.

013

- Connect the meter from J72-D03 (+) to J72-D08 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

014

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter JA4-B03 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

015

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The upper maple block is bad
---or---
- The protect card is bad (05-220).

016

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The cable from JA4 to J72 is bad.

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MAP 0531-4

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**A3 Supply - Any UV
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017

- Connect the meter from J72-D08 (+) to J72-D06 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

018

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B08 (+) to JA4-B06 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

019

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

020

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

021

- Connect the meter from J72-D07 (+) to J72-D08 (-) on the cable.

Does the meter read more than 11 Vdc?

Y N

M N

M N

MAP 0531-5

022

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B07 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 11 Vdc?

Y N

023

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

024

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

025

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Connect the meter from JA4-B04 (+) to TP GND (-) on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

026

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 to TP GND on the protect card.
- The protect card is bad (05-220).

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MAP 0531-5

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**A3 Supply - Any UV
5360 Systems Unit**

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027

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 to TP GND on the protect card.
- The A3 power assembly is bad.

028

- Set the Unit Emergency switch to the Power Off position (05-205).

Was the +1.7 Volt level the only level below the minimum Vdc?

Y N

029

Go to Page 7, Step 038, Entry Point B.

030

- Set CB1 to the Off position (05-215).
- Disconnect J72 (05-260) (the cable retainer must be removed first).
- Set the meter to measure ohms.
- Connect the meter from J72-B07 on the cable to TP RESET on the protect card.

Does the meter read less than 5 ohms?

Y N

031

- Remove the 1.7V test jumper from J75.
- Reconnect J72.
- Reconnect J75.
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B02 on the upper maple block to TP RESET on the protect card.

Does the meter read less than 5 ohms?

Y N

032

- Reconnect JA4.
 - Remove the jumper from TP K1 to TP GND on the protect card.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

Q R

Q R

MAP 0531-6

033

- Reconnect JA4.
 - Remove the jumper from TP K1 to TP GND on the protect card.
- The JA4 cable from JA4 to J72 is bad.

034

- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter from J72-D07 (+) to J72-D08 (-) on the cable.

Does the meter read more than 11 Vdc?

Y N

035

- Set CB1 to the Off position (05-215).
- Remove the 1.7-volt test jumper from J75.
- Reconnect J72.
- Reconnect J75.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B07 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 11 Vdc?

Y N

036

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

037

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

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MAP 0531-6

038

(Entry Point B)

- Set CB1 to the Off position (05-215).
- Remove the 1.7V test jumper from J75.
- Reconnect J75.
- Reconnect J72, if disconnected.
- Disconnect J73 and J79 (05-260).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set the meter to measure Vac.
- Connect the meter to the pins for the failing level in table 2 for both sides of the winding.

Table 2
AC outputs A3 transformer

| AC voltage | Minimum Vac | Pins |
|------------|-------------|---|
| +8.5 | 8 Vac | J73-4 to J73-3, J73-7 to J73-3 |
| +5 | 4.5 Vac | J79-1 to J79-4, J79-5 to J79-3 |
| -5 | 4.5 Vac | J73-5 to J73-1, J73-6 to J73-1 |
| -12 | 11 Vac | J73-8 to J73-2, J73-9 to J73-2 |

Does the meter read less than the minimum Vac for either side of the failing level of the transformer?

Y N

039

- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J73.
- Reconnect J79.

The A3 power assembly is bad.

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**A3 Supply - Any UV
5360 Systems Unit**

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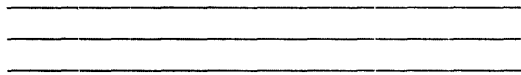
040

- Remove the jumper from TP K1 to TP GND on the protect card.
- Set CB1 to the Off position (05-215).

- Use the following procedure to test the A3 AC capacitor (05-260):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Is the AC capacitor good (see note 3)?

Y N

041

- Reconnect J73.
 - Reconnect J79.
- The A3 AC capacitor is bad.

042

- Reconnect J73.
 - Reconnect J79.
- The A3 transformer is bad (05-260).

046

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J75.
- Disconnect J68 (05-262).
- Connect the meter from J68 pins 1,2,3 and 4 (+) on the cable to ground.
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read less than 4.5 volts for all pins on J68?

Y N

047

- Set CB1 to the Off position (05-215).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J68.
- Disconnect J69.
- Connect the 1.7-volt test jumper (05-261) in J69.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the On position (05-215).

Does the machine power on?

Y N

048

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Set CB1 to the Off position (05-215).
 - Jumper from TP K1 to TP GND on the protect card.
 - Set CB1 to the On position (05-215).
- To measure the DC outputs of the 1.7-volt regulator/preload (table 4):
- Set the Unit Emergency switch (05-205) to the Power Enable position momentarily for each measurement.
 - Connect the meter to the pins in table 4.
- (Step 048 continues)

Table 4
DC outputs
DC outputs from the A3
1.7-volt regulator

| Supply DC voltage | Minimum Vdc | J69 pins to E17(-) |
|----------------------|----------------|-----------------------|
| +1.7 | +1.685* | 1,4,5,6,7, 8,9 |

* A digital voltmeter is required to measure the 1.7-volt accurately.

A3 Supply - Any UV

MAP 0531-11

5360 Systems Unit

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(Step 048 continued)

**Does the meter read less than the minimum Vdc
for any of the pins in table 4?**

Y N

049

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Disconnect the 1.7V test jumper from J69.
- Reconnect J69.
- Disconnect J04 (05-261).
- Set the meter to measure Vac (highest range).
- Connect the meter from J04-1 to J04-4 on the AC cable.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily (see note 5).

Note 5: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Does the meter read more than 180 VAC?

Y N

050

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J04.

The AC cable is bad

(open circuit K1-3 to J04-4)

(open circuit or shorted to ground F3 to J04-1)

(open circuit F3 to F4)

---or---

The AC fuse holder for F4 is bad.

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MAP 0531-11

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A3 Supply - Any UV
5360 Systems Unit

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051

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J04.
- Disconnect J72 (05-261 (the cable retainer must be removed first).
- Set the meter to measure Vdc.
- Connect the meter from J72-D04 (+) to J72-D08 (-) on the cable.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 4.5 Vdc?

Y N

052

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B04 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

053

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

054

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

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MAP 0531-12

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055

- Connect the meter from J72-D03 (+) to J72-D08 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

056

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter JA4-B03 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

057

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

058

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The cable from JA4 to J72 is bad.

059

- Connect the meter from J72-D08 (+) to J72-D06 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

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A3 Supply - Any UV
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060

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B08 (+) to JA4-B06 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

061

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

062

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

063

- Connect the meter from J72-D07 (+) to J72-D08 (-) on the cable.

Does the meter read more than 11 Vdc?

Y N

064

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B07 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

(Step 064 continues)

(Step 064 continued)

Does the meter read more than 11 Vdc?

Y N

065

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

066

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

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MAP 0531-13

067

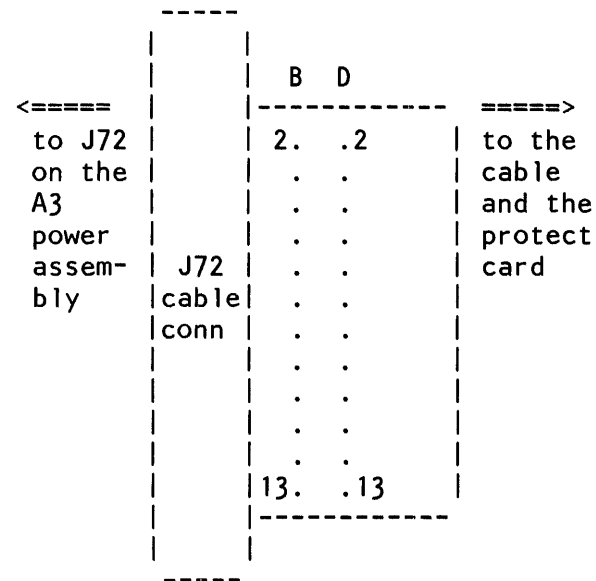
- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Connect the meter from J72-D08 (+) to J72-D04 (-) on the A3 power assembly (see note 6).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the On position (05-215).

Note 6:

If you have trouble measuring voltage on the D-side of J72, then proceed as follows:

- (1) Remove the gray plastic connector guide from the J72 cable.
- (2) Meter on the B-side of J72. Shown below is a pin-out diagram for the B-side of J72.

Use frame ground for J72-D08 (-) if you cannot probe both points at the same time.



Does the meter read less than 4.5 Vdc?

Y N

068

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 to TP GND on the protect card.
- The protect card is bad (05-220).

069

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J69.
- Install the 1.7-volt test jumper on to J69.
- Connect the meter to the pins of J78 shown in table 5.
- Set the Unit Emergency switch to the Power Enable position (05-205).

Table 5
UV logic level for the A3 power assembly

| UV Logic Voltage Level | Minimum Vdc | J78 (+) pins to E14(-) |
|------------------------|-------------|------------------------|
| UV(+5V) | +4.5 | 6 |
| UV(-12V) | +4.5 | 5 |
| UV(-5V) | +4.5 | 4 |
| UV(+8.5V) | -4.5 | 3 |

Does the meter read less than the minimum Vdc for any pins in table 5?

Y N

070

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J78-8 (+) to E14 (-).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read less than 4.5 volts?

Y N

071

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J74 (05-261).
- Connect the meter from J74-6 (+) to E14 (-) on the A3 power assembly.
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read less than 4.5 Vdc?

Y N

1 1 1 1
6 6 6 6
A A A A
F G H J

A A A A
F G H J
1 1 1 1
5 5 5 5

**A3 Supply - Any UV
5360 Systems Unit**

MAP 0531-16

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072

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Reconnect J74.
- Remove the jumper from TP K1 to TP GND on the protect card.

The A3 1.7-volt regulator/preload assembly is bad

---or---

The cable from J74 to J70 is bad.

073

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J74.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.

The A3 power assembly is bad.

074

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect the 1.7-volt test jumper from J69.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J69.

The A3 power assembly is bad.

075

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J69.

The A3 power assembly is bad.

Y
1
1

076

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J70.
- Connect the meter from J70-9 (+) to ground (-) on the cable.

Does the meter read less than 11 volts?

Y N

077

- Reconnect J70.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.

The 1.7-volt regulator/preload assembly is bad.

078

- Reconnect J70.
- Disconnect J74.
- Connect the meter from J74-9 (+) to ground (-) on the A3 power assembly.

Does the meter read less than 11 volts?

Y N

079

- Reconnect J74.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.

The cable from J74 to J70 is bad.

080

- Reconnect J74.
- Disconnect J72.
- Connect the meter from J72-D07 to J72-D08 on the cable.

Does the meter read less than 11 volts?

Y N

1 1
7 7
A A
K L

30Jun86 PN 4177313

EC 842375 PEC 842350

MAP 0531-16

X A A
1 K L
0 6 6

**A3 Supply - Any UV
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081

- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.

The A3 power assembly is bad.

082

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B07 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 11 volts?

Y N

083

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Reconnect JA4.

The upper maple block is bad

---or---

The protect card is bad (05-215).

084

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Reconnect JA4.

The JA4 cable from JA4 to J72 is bad.

085

- Select mode 6.
- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.

The cable from J69-2 to the 1A-A3 logic board is bad.

U W
9 1
0 0

MAP 0531-17

086

- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J68.
- Reconnect J75.

The cable from J75 to J68 is bad.

087

Go to Page 18, Step 088, Entry Point C.

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PEC 842350

MAP 0531-17

088

(Entry Point C)

- Set CB1 to the Off position (05-215).
- Reconnect J75.
- Disconnect J73 (05-261).
- Disconnect E19 (05-261).
- Disconnect the wire at diode D7 (05-261).
- Disconnect the wire at diode D8 (05-261).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set the meter to measure Vac.
- Connect the meter to the pins for the failing level in table 6 for both sides of the winding on the A3 transformer.

Table 6
AC outputs from the A3 transformer

| AC voltage | Minimum Vac | Pins |
|------------|-------------|---|
| +8.5 | 8 Vac | J73-4 to J73-2, J73-7 to J73-2 |
| +5 | 4.5 Vac | on the wire disconnected from D7 and D8 to the wire disconnected from E19 |
| -5 | 4.5 Vac | J73-5 to J73-1, J73-6 to J73-1 |
| -12 | 11 Vac | J73-8 to J73-3, J73-9 to J73-3 |

Does the meter read less than the minimum Vac for either side of the failing level of the transformer?

Y N

089

- Reconnect J73.
 - Reconnect E19.
 - Reconnect the wire at diode D7.
 - Reconnect the wire at diode D8.
 - Remove the jumper from TP K1 to TP GND on the protect card.
- The A3 power assembly is bad.

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PEC 842350

MAP 0531-18

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8

A3 Supply - Any UV

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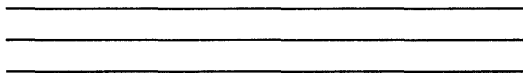
090

- Remove the jumper from TP K1 to TP GND on the protect card.
- Set CB1 to the Off position (05-215).

- Use the following procedure to test the A3 AC capacitor (05-261):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



Note 6: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Is the AC capacitor good (see note 6)?

Y N

091

- Reconnect J73.
- Reconnect E19.
- Reconnect the wire at diode D7.
- Reconnect the wire at diode D8.

The A3 AC capacitor is bad.

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30Jun86

PN 4177313

EC 842375

PEC 842350

MAP 0531-19

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A3 Supply - Any UV

MAP 0531-20

5360 Systems Unit

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092

- Reconnect J73.
 - Reconnect E19.
 - Reconnect the wire at diode D7.
 - Reconnect the wire at diode D8.
- The A3 transformer is bad (05-261).

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PN 4177313

EC 842375

PEC 842350

MAP 0531-20

A B
1 1

A3 Supply - Any OV

MAP 0532-2

5360 Systems Unit

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002

The protect card is bad (05-220)

---or---

The upper maple block is bad at JA4

---or---

The jumper card in JA4 is bad.

003

Is the A3 1.7-volt regulator/preload assembly (05-262) installed?

Y N

004

- Set CB1 to the Off position (05-215).
- Disconnect J72 (05-260) (the cable retainer must be removed first).
- Disconnect J75 (05-260).
- Set the meter to measure ohms.
- Connect the meter from E14 (05-260) to J75-3 on the cable.

Does the meter read less than 1 ohm?

Y N

005

- Reconnect J72.

- Reconnect J75.

The E14 ground wire from E14 to the DC ground board is bad

---or---

The A3 DC cable from J75-3 to the A-A3 board is bad.

8 3
C D

30JUN86

PN 4177314

EC 842375

PEC 839954

MAP 0532-2

D
2

A3 Supply - Any OV

MAP 0532-3

5360 Systems Unit

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006

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Reconnect J72.
- Connect the 1.7V test jumper (05-270) in J75.
- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.

To measure the supply voltages of the A3 supply:

- Connect the meter to the pins on the board in table 1 for each voltage while you:
- Set the Unit Emergency switch to the Power Enable position (05-205).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Table 1 J75

| Supply voltage | Maximum Vdc | Measure at pins(+) | (-) |
|----------------|-------------|--------------------|-----|
| 8.5 | 9.5 Vdc | 12 | E14 |
| +5 | 6.0 Vdc | 7,8,9, 10,11 | E14 |
| +1.7 | +1.754 * | 1,4 | E14 |
| -5 | -5.8 Vdc | 5 | E14 |
| -12 | -13.6Vdc | 6 | E14 |

* A digital voltmeter is required to measure the 1.7-volt accurately.

Does the meter read more than maximum Vdc for any level?

Y N

007

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 to TP GND on the protect card.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Press the Power key (power on).

Does the machine power on?

Y N

6 5 4
E F G

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EC 842375 PEC 839954

MAP 0532-3

A3 Supply - Any OV
5360 Systems Unit

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008

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J75.
- Reconnect J75.
- Disconnect J72 (05-260) (the cable retainer must be removed first).
- Connect the meter from J72-B04 (+) on the cable to ground.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

009

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Disconnect JA4 (05-220).
- Connect the meter from JA4-D04 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

010

- Set CB1 to the Off position (05-215).
- Reconnect JA4.

The upper maple block is bad

---or---

The protect card is bad (05-220).

011

- Set CB1 to the Off position (05-215).
- Reconnect JA4.

The JA4 cable from JA4 to J72 is bad.

012

- Connect the meter from J72-D03 (+) to J72-D08 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

H J

013

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Disconnect JA4 (05-220).
- Connect the meter JA4-B03 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

014

- Set CB1 to the Off position (05-215).
- Reconnect JA4.

The upper maple block is bad

---or---

The protect card is bad (05-220).

015

- Set CB1 to the Off position (05-215).
- Reconnect JA4.

The JA4 cable from JA4 to J72 is bad.

016

- Connect the meter from J72-D08 (+) to J72-D06 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

017

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B08 (+) to JA4-B06 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

018

- Set CB1 to the Off position (05-215).
- Reconnect JA4.

The upper maple block is bad

---or---

The protect card is bad (05-220).

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F K L
3 4 4

A3 Supply - Any OV

MAP 0532-5

5360 Systems Unit

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019

- Set CB1 to the Off position (05-215).
- Reconnect JA4.

The JA4 cable from JA4 to J72 is bad.

020

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Connect the meter from J72-B04 (+) to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

021

The protect card is bad (05-220).

022

The A3 power assembly is bad.

023

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Remove the 1.7V test jumper.

The A3 DC cable from J75-2 to A-A3 board is bad.

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EC 842375 PEC 839954

MAP 0532-5

024

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J75.
- Reconnect J75.
- Disconnect J73 (05-260).
- Disconnect J79 (05-260).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set the meter to measure Vac.
- Connect the meter to the pins for the failing level in table 2 for each set of pins.

Does the meter read more than the maximum Vac for any set of pins from the transformer?

Y N

Table 2 AC outputs

| Supply voltage | Maximum Vac | Measure at pin to pin |
|----------------|-------------|--|
| 5 V | 6.0 Vac | J79-1 J79-4 J79-2 J79-3 J79-5 J79-3 J79-6 J79-4 |
| 8.5 V | 10.0 Vac | J73-4 J73-3 J73-7 J73-3 |
| -5 V | 6.0 Vac | J73-5 J73-1 J73-6 J73-1 |
| -12 V | 14.0 Vac | J73-8 J73-2 J73-9 J73-2 |

025

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J73.
- Reconnect J79.
- Remove the jumper from TP K1 to TP GND on the protect card.

The A3 power assembly is bad.

M
6

A3 Supply - Any OV

MAP 0532-7

5360 Systems Unit

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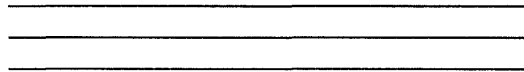
026

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 to TP GND on the protect card.

- Use the following procedure to test the A3 AC capacitor (05-260):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Is the AC capacitor good (see note 3)?

Y N

027

- Reconnect J73.
 - Reconnect J79.
- The A3 AC capacitor is bad.

028

- Reconnect J73.
 - Reconnect J79.
- The A3 transformer is bad (05-260).

C
2

A3 Supply - Any OV

MAP 0532-8

5360 Systems Unit

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029

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from E14 (05-261) to the DC ground board.

Does the meter read less than 1 ohm?

Y N

030

The E14 ground wire from E14 to the DC ground board is bad.

031

- Disconnect J72 (05-261) (the cable retainer must be removed first).
- Disconnect J69 (05-261).
- Set the meter to measure ohms.
- Connect the meter from E14 (05-261) to J69-3 on the cable.

Does the meter read less than one ohm?

Y N

032

- Reconnect J69.
 - Reconnect J72.
- The A3 DC cable from J69-3 to the A-A3 board is bad.

9
N

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EC 842375 PEC 839954

MAP 0532-8

033

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 4).
- Disconnect J75.
- Reconnect J69.
- Reconnect J72.
- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.

To measure the supply voltages of the A3 supply (table 3):

- Connect the meter to the pins on the board in table 3 for each voltage while you:
- Set the Unit Emergency switch to the Power Enable position (05-205).

Note 4: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Table 3 J75

| Supply voltage | Maximum Vdc | Measure at pins(+) | (-) |
|----------------|-------------|---|-----|
| 8.5 | 9.5 Vdc | 1 | E14 |
| +5 | 6.0 Vdc | 4,5,6, 7,8,9, 10,11, 12,13, 14,15 | E14 |
| -5 | -5.8 Vdc | 2 | E14 |
| -12 | -13.6Vdc | 3 | E14 |

Does the meter read more than maximum Vdc for any level?

Y N

034

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J75.
- Disconnect J69 (05-261).
- Connect the 1.7-volt test jumper in J69.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the machine power on?

Y N

Y N

1 1 1
6 5 0
P Q R

035

- Set CB1 to the Off position (05-215).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the On position (05-215).

To measure the supply voltages of the A3 1.7-volt regulator/preload assembly (table 4):

- Connect the meter to the pins on the board in table 4 for each pin while you:
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than the maximum Vdc for all pins in table 4?

Y N

036

- Set CB1 to the Off position (05-215).
- Disconnect J72 (05-261) (the cable retainer must be removed first).
- Connect the meter from J72-B04 (+) on the cable to ground.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

037

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Disconnect JA4 (05-220).
- Connect the meter from JA4-D04 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

Table 4 J69

| Supply voltage | Maximum Vdc | Measure at pins(+) | (-) |
|----------------|-------------|--------------------|-----|
| +1.7 | +1.754* | 1,4,5, | E17 |
| | | 6,7,8, | |
| | | 9 | |

* A digital voltmeter is required to measure the 1.7-volt accurately.

T U V
1 1 1
0 0 0

A3 Supply - Any OV
5360 Systems Unit

MAP 0532-11

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038

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect JA4.

The upper maple block is bad
---or---

The protect card is bad (05-220).

039

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect JA4.

The JA4 cable from JA4 to J72 is bad.

040

- Connect the meter from J72-D03 (+) to J72-D08 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

041

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Disconnect JA4 (05-220).
- Connect the meter JA4-B03 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

W X Y

W X Y

042

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect JA4.

The upper maple block is bad
---or---

The protect card is bad (05-220).

043

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect JA4.

The JA4 cable from JA4 to J72 is bad.

044

- Connect the meter from J72-D08 (+) to J72-D06 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

045

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B08 (+) to JA4-B06 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

1 1
2 2
Z A B

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EC 842375 PEC 839954

MAP 0532-11

Z
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1
1
A
A
A
B
1
1
1

A3 Supply - Any OV

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5360 Systems Unit

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046

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect JA4.

The upper maple block is bad

---or---

The protect card is bad (05-220).

047

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect JA4.

The JA4 cable from JA4 to J72 is bad.

048

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Connect the meter from J72-B04 (+) to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

049

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from TP K1 to TP GND on the protect card.

The protect card is bad (05-220).

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PN 4177314

EC 842375

PEC 839954

MAP 0532-12

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A3 Supply - Any OV

MAP 0532-13

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050

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J77-8 (-) to ground (+) (see note 5).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Note 5: A digital voltmeter is required to measure the 2.5 volt reference voltage.

Does the meter read more than 2.46 Vdc?

Y N

051

- Set CB1 to the Off position (05-215).
- Disconnect J74 (05-261).
- Connect the meter from J74-3 (+) to ground (-) on the A3 power assembly (see note 5).
- Set CB1 to the On position (05-215).

Does the meter read more than 2.46 Vdc?

Y N

052

- Set CB1 to the Off position (05-215).
- Reconnect J74.
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from TP K1 to TP GND on the protect card.

The A3 power assembly is bad.

053

- Set CB1 to the Off position (05-215).
- Reconnect J74.
- Disconnect J70 (05-262).
- Connect the meter from J70-3 (+) to ground (-) on the cable (see note 5).
- Set CB1 to the On position (05-215).

Does the meter read more than 2.46 Vdc?

Y N

1 1 1
4 4 4
A A A
D E F

30JUN86 PN 4177314

EC 842375 PEC 839954

MAP 0532-13

A
D 1 3
A 1 3
A 1 3

A3 Supply - Any OV
5360 Systems Unit

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054

- Set CB1 to the Off position (05-215).
- Reconnect J70.
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from TP K1 to TP GND on the protect card.

The cable from J74 to J70 is bad.

055

- Set CB1 to the Off position (05-215).
- Reconnect J70.
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from TP K1 to TP GND on the protect card.

The 1.7-volt regulator/preload assembly is bad.

056

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Connect the meter from J78-1 (+) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

057

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J69.

The A3 power assembly is bad.

A
G

MAP 0532-14

A
G

058

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Connect the meter from J78-7 (+) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

059

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Disconnect J74 (05-261).
- Connect the meter from J74-5 (+) to ground (-) on the A3 power assembly.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

060

- Set CB1 to the Off position (05-215).
- Reconnect J74.
- Disconnect the 1.7-volt test jumper from J69.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J69.

The A3 power assembly is bad.

061

- Set CB1 to the Off position (05-215).
- Reconnect J74.
- Disconnect the 1.7-volt test jumper from J69.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J69.

The 1.7-volt regulator/preload assembly is bad.

---or---

The cable from J74 to J70 is bad.

1
5
A
H

30JUN86

PN 4177314

EC 842375

PEC 839954

MAP 0532-14

0 9 S I O A H 1 4

A3 Supply - Any OV

MAP 0532-15

5360 Systems Unit

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062

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect J69.

The A3 power assembly is bad.

063

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from TP K1 to TP GND on the protect card.

The 1.7-volt regulator/preload assembly is bad.

064

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.

The A3 DC cable from J69-2 to A-A3 board is bad.

30JUN86 PN 4177314

EC 842375 PEC 839954

MAP 0532-15

A A
J K
1 1
6 6

A3 Supply - Any OV

MAP 0532-17

5360 Systems Unit

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066

- Set CB1 to the Off position (05-215).
- Reconnect J75.
- Remove the jumper from TP K1 to TP GND on the protect card.
- Reconnect E19.
- Reconnect the wire at diode D7.
- Reconnect the wire at diode D8.
- Reconnect J73.

The A3 power assembly is bad.

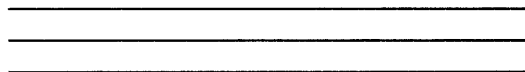
067

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 to TP GND on the protect card.

- Use the following procedure to test the A3 AC capacitor (05-261):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



Note 6: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Is the AC capacitor good (see note 6)?

Y N
| |

1 1
8 8
A A
L M

30JUN86

PN 4177314

EC 842375

PEC 839954

MAP 0532-17

A A
L M
1 1
7 7

A3 Supply - Any OV

MAP 0532-18

5360 Systems Unit

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068

- Reconnect J75.
- Reconnect E19.
- Reconnect the wire at diode D7.
- Reconnect the wire at diode D8.
- Reconnect J73.

The A3 AC capacitor is bad.

069

- Reconnect J75.
- Reconnect E19.
- Reconnect the wire at diode D7.
- Reconnect the wire at diode D8.
- Reconnect J73.

The A3 transformer is bad (05-260).

30JUN86 PN 4177314

EC 842375² PEC 839954

MAP 0532-18

A3 Supply - OC
5360 Systems Unit

MAP 0533-1

PAGE 1 OF 8

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 4 | 028 | 0520 | A |
| 8 | 069 | 0520 | A |
| 5 | 035 | 0520 | A |

001
(Entry Point A)

MAP DESCRIPTION:

This MAP locates the failing FRU for the A3 power supply with built-in 1.7-volt regulator and the A3 power supply with separate 1.7-volt regulator/preload assembly.

ENTRY CONDITIONS:

The Power Check light is on.
 The Power Status indicates that the A3 power supply is OC.
 The CS light is on when Lamp Test is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Upper maple block
- Protect card
- Jumper card (JA4)
- A3 transformer
- A3 power assembly
- E14 ground wire
- JA4 cable
- Jumper assembly (J76)
- A3 1.7-volt regulator/preload assembly
- A3 1.7-volt regulator cable (from J74 to J70)
- Jumper assembly (J71)

Is the A3 power supply installed (05-261)?

| | |
|---|---|
| Y | N |
| | |
| 2 | 2 |
| A | B |

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 EC 839954 PEC 826487
 MAP 0533-1

C D L
2 2 3

A3 Supply - OC
5360 Systems Unit

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025

- Set CB1 to the Off position (05-215).
- Disconnect the jumper on J76 (05-260).
- Set the meter to measure ohms.
- Connect the meter on the jumper:
 - J76-1 to J76-12
 - J76-4 to J76-5
 - J76-6 to J76-7
 - J76-8 to J76-9
 - J76-10 to J76-11.

Does the meter read less than 5 ohms for each?

Y N

026

- Reconnect J76.
- The jumper assembly (J76) is bad.

027

- Reconnect J76.
- The A3 transformer is bad (05-260).

028

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J75.
- Reconnect J75.

To find a short on the A3 board,
Go To Map 0520, Entry Point A.

029

- Set CB1 to the Off position (05-215).
 - Disconnect J69 (05-262).
- Connect the 1.7-volt test jumper (05-270) in J69.
- Set CB1 to the On position (05-215).

Does the machine power on?

Y N

8
M N

N

MAP 0533-4

030

- Set CB1 to the Off position (05-215).
- Disconnect J74 (05-261).
- Jumper from J74-1 to J74-12 on the A3 power assembly.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Press the Power Status key to check the power status.

Is the power check overcurrent (OC)?

Y N

031

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.
- Remove the jumper from J74-1 to J74-12.
- Reconnect J74.

The 1.7-volt regulator/preload assembly is bad.

---or---

The J70 cable from J70 to J74 is bad.

032

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69,
- Reconnect J69.
- Disconnect J68 (05-262).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Press the Power Status key to check the power status.

Is the power check overcurrent (OC)?

Y N

033

- Set CB1 to the Off position (05-215).
- Remove the jumper from J74-1 to J74-12 on the A3 power assembly.
- Reconnect J74.
- Reconnect J68.

The 1.7-volt regulator/preload assembly is bad.

5
P

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MAP 0533-4

P
4

A3 Supply - OC
5360 Systems Unit
PAGE 5 OF 8

034

- Set CB1 to the Off position (05-215).
- Reconnect J68.
- Disconnect J75 (05-261).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Press the Power Status key to check the power status.

Is the power check overcurrent (OC)?

Y N

035

- Set CB1 to the Off position (05-215).
- Remove the jumper from J74-1 to J74-12.
- Reconnect J74.
- Reconnect J75.

Go To Map 0520, Entry Point A.

036

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from E14 to the DC ground board.

Does the meter read less than 1 ohm?

Y N

037

- Reconnect J75.
 - Reconnect J74.
 - Remove the jumper from J74-1 to J74-12 on the A3 power assembly.
- The E14 ground wire from E14 to the DC ground board is bad.

038

- Set CB1 to the Off position (05-215).
- Disconnect J72 (05-260) (the cable retainer must be removed first).
- Disconnect E14 (05-261).
- Connect the meter from E14 on board to the DC ground board.

Does the meter read more than 10 K ohm?

Y N

6
Q R

R

MAP 0533-5

039

- Disconnect the wire at diode D7 (05-261).
- Disconnect the wire at diode D8 (05-261).
- Disconnect J73 (05-261).
- Disconnect E19 (05-261).
- Connect the meter from each pin on J73 on the cable and on the two wires disconnected from diodes D7 and D8 of the A3 transformer to ground.

Does the meter read more than 10 K ohm for all pins on J73 and both wires?

Y N

040

- Reconnect E14.
 - Reconnect E19.
 - Remove the jumper from J74-1 to J74-12 on the A3 power assembly.
 - Reconnect the wire at diode D7.
 - Reconnect the wire at diode D8.
 - Reconnect J72.
 - Reconnect J74.
 - Reconnect J73.
 - Reconnect J75.
 - Reconnect J69.
- The A3 transformer is bad (05-260).

041

- Reconnect E14.
 - Reconnect E19.
 - Remove the jumper from J74-1 to J74-12 on the A3 power assembly.
 - Reconnect the wire at diode D7.
 - Reconnect the wire at diode D8.
 - Reconnect J72.
 - Reconnect J74.
 - Reconnect J73.
- The A3 power assembly is bad.

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MAP 0533-5

0
5

A3 Supply - OC
5360 Systems Unit
PAGE 6 OF 8

042

- Remove the jumper from J74-1 to J74-12 on the A3 power assembly.
- Reconnect J74.
- Reconnect J75.
- Reconnect E14.
- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter from J72-B05 (+) to J72-D08 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

043

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Disconnect JA4 (05-220).
- Connect the meter from JA4-D05 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

044

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

045

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

046

- Connect the meter from J72-D03 (+) to J72-D08 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

S T

S T

MAP 0533-6

047

- Set CB1 to the Off position (05-215).
 - Reconnect J72.
 - Disconnect JA4 (05-220).
 - Connect the meter JA4-B03 (+) to JA4-B08 (-) on the upper maple block.
 - Set CB1 to the On position (05-215).
- Does the meter read more than 4.5 Vdc?**

Y N

048

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

049

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

050

- Connect the meter from J72-D08 (+) to J72-D06 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

051

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B08 (+) to JA4-B06 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

052

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The upper maple block is bad
---or---
The protect card is bad (05-220).

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7 7
U V

MAP 0533-6

U V
6 6

A3 Supply - OC

5360 Systems Unit

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053

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

054

- Connect the meter from J72-D07 (+) to J72-D08 (-) on the cable.

Does the meter read more than 11 Vdc?

Y N

055

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Disconnect JA4 (05-220).
- Connect the meter from JA4-B07 (+) to JA4-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 11 Vdc?

Y N

056

- Set CB1 to the Off position (05-215).
 - Disconnect JA4 (05-220).
- The upper maple block is bad.
---or---
The protect card is bad (05-220).

057

- Set CB1 to the Off position (05-215).
 - Reconnect JA4.
- The JA4 cable from JA4 to J72 is bad.

058

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Disconnect J70 (05-262).
- Connect the meter from J70-9 (+) to J70-8 (-) on the cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 11 Vdc?

Y N

W X

W X

MAP 0533-7

059

- Set CB1 to the Off position (05-215).
- Reconnect J70.
- Disconnect J74 (05-261).
- Connect the meter from J74-9 (+) to J74-8 (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 11 Vdc?

Y N

060

- Set CB1 to the Off position (05-215).
 - Reconnect J74.
- The A3 power assembly is bad.

061

- Set CB1 to the Off position (05-215).
 - Reconnect J74.
- The J70 cable from J70 to J74 is bad.

062

- Set CB1 to the Off position (05-215).
- Reconnect J70.
- Connect the meter from J72-B05 (+) to J72-B08 (-).
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

063

- Set CB1 to the Off position (05-215).
- The protect card is bad (05-220).

064

- Set CB1 to the Off position (05-215).
- Disconnect J76 (05-261).
- Set the meter to measure ohms.
- Connect the meter on the jumper:
 - J76-1 to J76-12
 - J76-4 to J76-5
 - J76-6 to J76-7
 - J76-8 to J76-9
 - J76-10 to J76-11.

Does the meter read less than 5 ohms for each?

Y N

8 8
Y Z

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EC 839954 PEC 826487

MAP 0533-7

M Y Z
4 7 7

A3 Supply - OC
5360 Systems Unit

MAP 0533-8

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065

The J76 jumper assembly is bad.

066

- Disconnect J71 (05-261).
- Set the meter to measure ohms.
- Connect the meter on the jumper:
 - J71-1 to J71-16
 - J71-4 to J71-5
 - J71-6 to J71-7
 - J71-8 to J71-9
 - J71-10 to J71-11.
 - J71-12 to J71-13.

Does the meter read less than 5 ohms for each?

Y N

067

- Reconnect J71.
- The J71 jumper assembly is bad.

068

- Reconnect J71.
- The A3 power assembly is bad.

069

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J69.
- Reconnect J69.

To find a short on the A3 board,
Go To Map 0520, Entry Point A.

04Dec84 PN 4177315
EC 839954 PEC 826487
MAP 0533-8

5360 Systems Unit

PAGE 1 OF 5

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 4 | 032 | 0519 | A |
| 5 | 040 | 0519 | A |
| 3 | 016 | 0520 | A |
| 5 | 044 | 0520 | A |
| 4 | 031 | 9750 | A |
| 5 | 039 | 9750 | A |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Disconnect J17 (05-230).
- Disconnect J42 (05-235) (the cable retainer must be released).
- Disconnect J21, J23, J25, J28 (05-240).
- Disconnect J26.
- Disconnect J27.
- Connect the 1.7-volt test jumper (05-270) in J42.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

MAP DESCRIPTION:

This MAP locates the cause of the OC condition.

ENTRY CONDITIONS:

The Power Check light is on and the Power Status indicates that the base +5V level is OC.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- Base transformer
- Base 5-volt assembly
- Base power assembly
- JA3 cable
- Jumper assembly (J32)
- Diskette driver control card
- Diskette DC cable
- B-A1 board
- B-A2 board
- Diskette driver board assembly

Does the machine power on at least momentarily?

| | |
|--------|--------|
| | |
| Y | N |
| 3 A | 2 B |

B
1

Base Power +5V Level OC

5360 Systems Unit

PAGE 2 OF 5

002

- Set CB1 to the Off position (05-215).
- Disconnect J15 (05-230).
- Disconnect J22 (05-240).
- Disconnect J24 (05-240).
- Disconnect J30 (05-240).
- Set the meter to measure ohms.
- Connect the meter from J30-1 on the board to ground.

Does the meter read more than 1 k-ohm?

Y N

003

- Reconnect J30.
- Reconnect J22.
- Disconnect J31 (05-240).
- Connect the meter from J31-1 on the cable to ground.

Does the meter read less than 1 k-ohm?

Y N

004

- Reconnect J31.
- Disconnect J14 (05-230).
- Connect the meter from J15-1 on the transformer to ground.

Does the meter read more than 1 k-ohm?

Y N

005

- Reconnect all the cables.
- The base transformer is bad.

006

- Reconnect all the cables.
- The base power assembly is bad.

007

- Reconnect all the cables.
- The base +5V assembly is bad.

C

C

MAP 0535-2

008

- Reconnect J15.
- Reconnect J22.
- Reconnect J30.
- Disconnect 1.7V test jumper from J42.
- Reconnect J17, J21, J23, J25, J28, J42.
- Reconnect J26.
- Reconnect J27.
- Disconnect JA3 (05-220).
- Set the meter to measure Vdc.
- Connect the meter from JA3-D04 (+) on the upper maple block to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 2.4 Vdc?

Y N

009

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The protect card is bad (05-220).

010

- Set CB1 to the Off position (05-215).
- Reconnect JA3.
- Disconnect J22 (05-240).
- Connect the meter from J22-B04 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 2.4 Vdc?

Y N

011

- Set CB1 to the Off position (05-215).
 - Reconnect J22.
- The JA3 cable is bad.

3
D

30Jun86 PN 4177317

EC 842375 PEC 842350

MAP 0535-2

A D
1 2

Base Power +5V Level OC
5360 Systems Unit

PAGE 3 OF 5

012

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Disconnect the J32 jumper (05-240).
- Set the meter to measure ohms.
- Connect the meter from J32-6 to J32-7 on the jumper assembly.

Does the meter read less than 1 ohm?

Y N

013

- Reconnect J32.
- The J32 jumper assembly is bad (pin 6 to pin 7).

014

The base power assembly is bad.

015

- Set CB1 to the Off position (05-215).
- Disconnect 1.7V test jumper from J42.
- Reconnect J17, J28 and J42.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

016

- Set CB1 to the Off position (05-215).
- Reconnect J21.
- Reconnect J23.
- Reconnect J25.
- Reconnect J26.
- Reconnect J27, if present and disconnected.

To find a short circuit on the A-A1 board,

Go To Map 0520, Entry Point A.

017

- Set CB1 to the Off position (05-215).
- Reconnect J23.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

4
E F

F

MAP 0535-3

018

- Set CB1 to the Off position (05-215).
- Reconnect J21.
- Reconnect J25.
- Reconnect J26, if present.
- Reconnect J27, if present and disconnected.

Is the 72MD installed?

Y N

019

(The 51TD is installed.)

- Disconnect the I/O connector from the driver control card (91-250).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

020

The diskette DC cable at J23 is bad.

021

The diskette drive control card is bad.

022

- Set CB1 to the Off position (05-215).
- Disconnect J1 from the driver board (93-250).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

023

The diskette DC cable at J23 is bad.

4
G

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EC 842375 PEC 842350

MAP 0535-3

024

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J1.
- Disconnect J2 from the driver board (93-250).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

025

The diskette driver board assembly is bad (93-250).

026

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J2.
- Disconnect A3 from the driver control card (93-247).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

027

The cable from J2 to A3 is bad.

028

The driver control card is bad.

029

- Set CB1 to the Off position (05-215).
- Reconnect J25.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

030

- Reconnect J21.
- Reconnect J26, if present.
- Reconnect J27, if present and disconnected.

Is the 21ED disk drive installed?

Y N

031

To find a short circuit on the disk drive A,
Go To Map 9750, Entry Point A.

032

To find a short circuit on the disk drive A,
Go To Map 0519, Entry Point A.

033

- Set CB1 to the Off position (05-215).
- Reconnect J21.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

034

- Set CB1 to the Off position (05-215).
 - Reconnect J26, if present.
 - Reconnect J27, if present and disconnected.
- The B-A1 board is bad
---or---
The B-A2 board is bad.

035**Is J26 present?**

Y N

036

Go to Page 5, Step 041, Entry Point B.

K
4

Base Power +5V Level OC
5360 Systems Unit
PAGE 5 OF 5

L

MAP 0535-5

037

- Set CB1 to the Off position (05-215).
- Reconnect J26.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

038

- Reconnect J27, if present and removed.

Is the 21ED disk drive installed?

Y N

039

To find a short circuit on the disk drive B,
Go To Map 9750, Entry Point A.

040

To find a short circuit on the disk drive B,
Go To Map 0519, Entry Point A.

041

(Entry Point B)

Is J27 present and disconnected?

Y N

042

- Check cables and boards for intermittent short circuit.

043

- Set CB1 to the Off position (05-215).
- Reconnect J27.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

044

To find a short circuit on the A-A1 board,
Go To Map 0520, Entry Point A.

045

- Check cables and boards for intermittent short circuit.

L

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 3 | 016 | 0520 | A |
| 3 | 018 | 9750 | A |
| 3 | 022 | 9750 | A |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Disconnect J17 (05-230).
- Disconnect J42 (05-235) (the cable retainer must be released).
- Disconnect J25 (05-240).
- Disconnect J28 (05-240).
- Disconnect J26, if present.
- Connect the 1.7V test jumper (05-270) in J42.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

MAP DESCRIPTION:

This MAP locates the cause of the OC condition.

ENTRY CONDITIONS:

The Power Check light is on and the Power Status indicates that the +12V level is OC.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Base transformer
- Base power assembly
- JA3 cable
- Jumper assembly (J32)

Does the machine power on?

Y N

| |

3 2
A B

B
1

Base Power +12V Level OC

5360 Systems Unit

PAGE 2 OF 3

002

- Set CB1 to the Off position (05-215).
- Disconnect J21 (05-240).
- Disconnect J22 (05-240).
- Disconnect J23 (05-240).
- Disconnect J24 (05-240).
- Disconnect J27 (05-240).
- Disconnect J30 (05-240).
- Disconnect J31 (05-240).
- Set the meter to measure ohms.
- Connect the meter from J29-9 to ground.

Does the meter read more than 1 k-ohm?

Y N

003

- Disconnect J29 (05-240).
- Connect the meter from J29-9 on transformer to ground.

Does the meter read more than 1 k-ohm?

Y N

004

- Reconnect all the cables.
- The base transformer is bad.

005

- Reconnect all the cables.
- The base power assembly is bad
---or---
The J32 jumper assembly is bad.

006

- Disconnect the 1.7V test jumper in J42.
- Reconnect all the cables except J22 (05-240).
- Set the meter to measure Vdc.
- Connect the meter from J22-B05 (+) to J22-D08 (-) on the cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

C D

C D

MAP 0536-2

007

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Disconnect JA3 (05-220).
- Connect the meter JA3-D05 (+) to JA3-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

008

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

009

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The JA3 cable from JA3 to J22 is bad.

010

- Set CB1 to the Off position (05-215).
- Disconnect the J32 jumper.
- Set the meter to measure ohms.
- Connect the meter from J32-9 to J32-8 on the jumper.

Does the meter read less than 1 ohm?

Y N

011

- Reconnect J32.
- The jumper assembly (J32) is bad (pin 9 to pin 8).

3
E

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EC 826487 PEC 826380

MAP 0536-2

A E
1 2

Base Power +12V Level OC

5360 Systems Unit

PAGE 3 OF 3

012

- Reconnect J32.
- Reconnect J22.
- Set the meter to measure Vdc.
- Connect the meter from J22-B05 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

013

The protect card is bad (05-220).

014

The base power assembly is bad.

015

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7V test jumper in J42.
- Reconnect J17, J28, J42.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

016

- Reconnect J25.
 - Reconnect J26, if present.
- To find a short circuit on the A-A1 board,
Go To Map 0520, Entry Point A.

017

- Set CB1 to the Off position (05-215).
- Reconnect J25.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

018

- Reconnect J26, if present.
- To find a short circuit of disk drive A,
Go To Map 9750, Entry Point A.

F

MAP 0536-3

019

Is J26 present in this machine?

Y N

020

Go to Step 023, Entry Point B.

021

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J26.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

022

To find a short circuit on disk drive B,
Go To Map 9750, Entry Point A.

023

(Entry Point B)

A loose connection was the only problem.

F

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MAP 0536-3

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 4 | 030 | 0519 | A |
| 5 | 034 | 0519 | A |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Disconnect J23 (05-240).
- Disconnect J25 (05-240).
- Disconnect J26 (05-240).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

MAP DESCRIPTION:

This MAP locates the cause of the OC condition.

ENTRY CONDITIONS:

The power check light is on and power status indicates base +24V level is OC.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Base power assembly
- Base transformer
- JA3 cable
- Jumper assembly (J32)
- Diskette DC cable
- Diskette driver control card
- Diskette driver board assembly

Does the machine power on?

Y N

| | |
|--|--|
| | |
|--|--|

3 2
A B

B
1

Base Power +24V Level CC
5360 Systems Unit

MAP 0537-2

PAGE 2 OF 5

002

- Set CB1 to the Off position (05-215).
- Disconnect J21 (05-240).
- Disconnect J22 (05-240).
- Disconnect J24 (05-240).
- Disconnect J27 (05-240).
- Disconnect J30 (05-240).
- Disconnect J31 (05-240).
- Set the meter to measure ohms.
- Connect the meter from J29-7 on base power assembly to ground.

Does the meter read more than 10 k-ohms?

Y N

003

- Disconnect J29 (05-240).
- Disconnect J31 (05-240).
- Connect the meter from J29-7 on the transformer to ground.

Does the meter read less than 10 k-ohms?

Y N

004

- Reconnect all cables.
- The base power assembly is bad.

005

- Reconnect all cables.
- The base transformer is bad.

006

- Reconnect all connectors except J22.
- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter from J22-B07 (+) to J22-D08 (-) on the cable.

- Check for control supply voltages.

Does the meter read more than 4.5 Vdc?

Y N

3 3
C D

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PN 4177319

EC 826487

PEC 826380

MAP 0537-2

C D
2 2

**Base Power +24V Level OC
5360 Systems Unit**

PAGE 3 OF 5

007

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Disconnect JA3 (05-220).
- Set CB1 to the On position (05-215).
- Connect the meter from JA3-D07 (+) to JA3-B08 (-) on the upper maple block.

Does the meter read more than 4.5 Vdc?

Y N

008

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

009

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The JA3 cable from JA3 to J22 is bad.

010

- Disconnect J32 (05-240).
- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from J32-4 to J32-5 on the jumper.

Does the meter read less than 1 ohm?

Y N

011

- Reconnect J32.
- The jumper assembly J32 is bad.

E

A E
1 1

MAP 0537-3

012

- Reconnect J22.
- Reconnect J32.
- Set the meter to measure Vdc.
- Connect the meter from J22-B07 (+) to J22-D08 (-) on the cable.
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

013

The protect card is bad (05-220).

014

The base power assembly is bad.

015

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J23.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

016

- Set CB1 to the Off position (05-215).
- Reconnect J25, if disconnected.
- Reconnect J26, if present and disconnected.

Is the 72MD installed?

Y N

017

(The 51TD is installed.)

- Disconnect the I/O connector from the driver control card (91-250).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

4 4 4 4
F G H J

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EC 826487 PEC 826380

MAP 0537-3

G H J
3 3 3

Base Power +24V Level OC

5360 Systems Unit

PAGE 4 OF 5

018

- Set CB1 to the Off position (05-215).
- Reconnect all cables.

The diskette DC cable at J23 is bad.

019

- Set CB1 to the Off position (05-215).
- Reconnect all cables.

The diskette drive control card is bad.

020

- Disconnect J1 from the driver board (93-250).
- Press the Power key (power on).

Does the machine power on?

Y N

021

- Reconnect all cables.

The diskette DC cable at J23 is bad.

022

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J1.
- Disconnect J2 from the driver board (93-250).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

023

- Reconnect all cables.

The diskette driver board assembly is bad (93-250).

F K
3

MAP 0537-4

024

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J2.
- Disconnect A3 from the driver control card (93-247).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

025

- Reconnect all cables.

The cable from J2 to A3 is bad.

026

- Reconnect all cables.

The driver control card is bad.

027

Is a 21ED file installed?

Y N

028

Go to Page 5, Step 035, Entry Point B.

029

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J25.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

030

- Set CB1 to the Off position (05-215).
- Reconnect all cables.

To find a short circuit in disk drive A,

Go To Map 0519, Entry Point A.

K

5
L

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EC 826487 PEC 826380

MAP 0537-4

L
4

Base Power +24V Level OC

MAP 0537-5

5360 Systems Unit

PAGE 5 OF 5

031

Is J26 present and disconnected?

Y N

032

Go to Step 035, Entry Point B.

033

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J26.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

034

- Set CB1 to the Off position (05-215).
 - Reconnect J26, if present and disconnected.
- To find a short circuit in disk drive B,
Go To Map 0519, Entry Point A.

035

(Entry Point B)

- Select mode 6.
 - Press the Power key (power off).
 - Check for intermittent short circuit in power cables.
- A loose connection was the only problem.

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MAP 0537-5

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 4 | 016 | 0519 | A |
| 5 | 034 | 0519 | A |
| 3 | 012 | 0520 | A |
| 5 | 038 | 0520 | A |
| 4 | 015 | 9750 | A |
| 5 | 033 | 9750 | A |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Disconnect J17 (05-230).
- Disconnect J42 (05-235) (the cable retainer must be released).
- Disconnect J23, J25, J28 (05-240).
- Disconnect J26, if J26 is present.
- Disconnect J27, if J27 is present.
- Connect the 1.7V test jumper (05-270) in J42.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

MAP DESCRIPTION:

This MAP locates the cause of the OC condition.

ENTRY CONDITIONS:

The power check light is on and the power status indicates that the base -5V level is OC.

CB1 is set to on.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Base transformer
- Base power assembly
- JA3 cable
- Diskette DC cable
- Diskette driver control card
- Diskette driver board assembly

Does the machine power on?

Y N

| |

3 2

A B

B
1

Base Power -5V Level OC

MAP 0538-2

5360 Systems Unit

PAGE 2 OF 5

002

- Set CB1 to the Off position (05-215).
- Disconnect J21 (05-240).
- Disconnect J22 (05-240).
- Disconnect J24 (05-240).
- Disconnect J30 (05-240).
- Disconnect the 1.7V test jumper from J42.
- Set the meter to measure ohms.
- Connect the meter from J23-2 on the base power assembly to ground.

Does the meter read more than 10 k-ohms?

Y N

003

- Disconnect J29 (05-240).
- Connect the meter from J23-2 on the base power assembly to ground.

Does the meter read more than 10 k-ohms?

Y N

004

- Reconnect all the cables.
- The base power assembly is bad.

005

- Reconnect all the cables.
- The base transformer is bad.

006

- Reconnect all the cables.
- Disconnect JA3 (05-220).
- Set the meter to measure Vdc.
- Connect the meter from JA3-D10 (+) to ground (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 2.4 Vdc?

Y N

007

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

3
C

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PN 4177320

EC 826487

PEC 826380

MAP 0538-2

A C
1 2

Base Power -5V Level OC

MAP 0538-3

5360 Systems Unit

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008

- Set CB1 to the Off position (05-215).
- Reconnect JA3.
- Disconnect J22 (05-240).
- Connect the meter from J22-B10 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

- Measure at cable end.

Does the meter read more than 2.4 Vdc?

Y N

009

- Set CB1 to the Off position (05-215).
 - Reconnect J22.
- The JA3 cable is bad.

010

- Set CB1 to the Off position (05-215).
 - Reconnect J22.
- The base power assembly is bad.

011

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7V test jumper from J42.
- Reconnect J17, J28 and J42.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

012

- Set CB1 to the Off position (05-215).
 - Reconnect J23 and J25.
 - Reconnect J26, if J26 is present.
 - Reconnect J27, if J27 is present.
- To find a short circuit on the A-A1 board,
Go To Map 0520, Entry Point A.

4
D

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PEC 826380

MAP 0538-3

D
3

Base Power -5V Level OC
5360 Systems Unit
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013

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J25.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

014

- Set CB1 to the Off position (05-215).
- Reconnect J23.
- Reconnect J25.
- Reconnect J26, if J26 is present.
- Reconnect J27, if J27 is present.

Is the 21 ED disk drive installed?

Y N

015

- Set CB1 to the On position (05-215).
- To find a short circuit on disk drive A,
Go To Map 9750, Entry Point A.

016

To find a short circuit on disk drive A,
Go To Map 0519, Entry Point A.

017

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J23.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

5
E F

F

MAP 0538-4

018

- Set CB1 to the Off position (05-215).
- Reconnect J25.
- Reconnect J26, if J26 is present.
- Reconnect J27, if J27 is present.
- Set CB1 to the On position (05-215).

Is the 72MD installed?

Y N

019

- (The 51TD is installed.)
- Disconnect the I/O connector from the driver control card (91-250).
 - Press the Power key (power on).

Does the machine power on?

Y N

020

The diskette DC cable at J23 is bad.

021

The diskette drive control card is bad.

022

- Disconnect J1 from the driver board (93-250).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

023

The diskette DC cable at J23 is bad.

024

- Set CB1 to the Off position (05-215).
- Reconnect J1.
- Disconnect J2 from the driver board (93-250).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

025

The diskette driver board assembly is bad (93-250).

5
G

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EC 826487 PEC 826380

MAP 0538-4

E G
4 4

Base Power -5V Level OC

5360 Systems Unit

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026

- Set CB1 to the Off position (05-215).
- Reconnect J2.
- Disconnect A3 from the driver control card (93-247).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

027

The cable from J2 to A3 is bad.

028

The driver control card is bad.

029

Is file B present?

Y N

030

Go to Step 035, Entry Point B.

031

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J26.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

032

- Set CB1 to the Off position (05-215).
- Reconnect J23 and J25.
- Reconnect J27, if J27 is present.

Is the 21 ED disk drive installed?

Y N

033

To find a short circuit on disk drive B,
Go To Map 9750, Entry Point A.

H J

H J

MAP 0538-5

034

To find a short circuit on disk drive B,
Go To Map 0519, Entry Point A.

035

(Entry Point B)

Is J27 cable present in machine?

Y N

036

Go to Step 039, Entry Point C.

037

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J27.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

038

To find a short circuit on the A2 board,
Go To Map 0520, Entry Point A.

039

(Entry Point C)

A loose connection was the only problem.

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MAP 0538-5

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 3 | 010 | 0520 | A |
| 3 | 014 | 0520 | A |

001

(Entry Point A)

- Set CB1 to the Off position (05-215)
- Disconnect J17 (05-230).
- Disconnect J28 (05-240).
- Disconnect J42 (05-235) (the cable retainer must be released).
- Connect the 1.7V test jumper (05-270) in J42.
- Disconnect J27 (05-240), if present.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

MAP DESCRIPTION:

This MAP locates the cause of the OC condition.

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the base +8.5V or -12V level is OC. CB1 is on.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Base power assembly
- JA3 cable

Does the machine power on?

Y N

002

- Set CB1 to the Off position (05-215).
 - Disconnect the 1.7V test jumper from J42.
 - Reconnect J17.
 - Reconnect J28.
 - Reconnect J42.
 - Connect J27 (05-240), if present.
 - Disconnect JA3 (05-220).
 - Set the meter to measure Vdc.
 - Connect the meter from JA3-D09 (+) on the upper maple block to ground (-).
 - Set CB1 to the On position (05-215).
- (Step 002 continues)

5360 Systems Unit

PAGE 2 OF 3

(Step 002 continued)

Does the meter read more than 4.5 Vdc?

Y N

003

- Set CB1 to the Off position (05-215).
- Reconnect JA3.

The upper maple block is bad at JA3

---or---

The protect card is bad (05-220).

004

- Set CB1 to the Off position (05-215). - Measure at cable end.
- Reconnect JA3.
- Disconnect J22 (05-240).
- Connect the meter from J22-B09 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

005

- Set CB1 to the Off position (05-215).
- Reconnect J22.

The JA3 cable is bad.

006

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Connect the meter from J22-B09 (+) to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

007

The base power assembly is bad.

008

The protect card is bad (05-220)

---or---

The Base Power Assembly is bad.

A
1

Base +8.5V/-12V Level OC

MAP 0539-3

5360 Systems Unit

PAGE 3 OF 3

009

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7V test jumper from J42.
- Reconnect J17.
- Reconnect J28.
- Reconnect J42.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

010

- Reconnect J27, if present.
- To find a short circuit on the A-A1 board,
Go To Map 0520, Entry Point A.

011

Is J27 cable present in machine?

Y N

012

Go to Step 015, Entry Point B.

013

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J27.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

014

To find a short circuit on the A-A2 board,
Go To Map 0520, Entry Point A.

015

(Entry Point B)

A loose connection was the only problem.

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EC 826487 PEC 826380
MAP 0539-3

Base 1.7V Regulator OC

MAP 0540-1

5360 Systems Unit

PAGE 1 OF 2

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 2 | 007 | 0520 | A |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Disconnect J17 (05-230).
- Disconnect J28 (05-240).
- Disconnect J42 (05-235) (the cable retainer must be released).
- Connect the 1.7-volt test jumper (05-270) in J42.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

MAP DESCRIPTION:

This MAP locates the cause of the OC condition.

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the base 1.7V regulator is OC.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Base 1.7-volt regulator
- JC3 cable

Does the machine power on?

Y N

002

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7-volt test jumper from J42.
- Reconnect J17.
- Reconnect J28.
- Reconnect J42.
- Disconnect J43 (05-235).
- Set the meter to measure Vdc.
- Connect the meter from J43-4 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

2 2 2
A B C

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EC 842375 PEC 826487

MAP 0540-1

A B C
1 1 1

Base 1.7V Regulator OC

MAP 0540-2

5360 Systems Unit

PAGE 2 OF 2

003

- Connect the meter from JC3-B12 (+) to ground (-).

Does the meter read more than 4.5 Vdc?

Y N

004

- Set CB1 to the Off position (05-215).
- Reconnect J43.

The protect card is bad (05-220)

---or---

The lower maple block is bad

---or---

The JC3 cable is bad.

005

- Set CB1 to the Off position (05-215).
- Reconnect J43.

The JC3 cable is bad (JC3-B12 to J43-4).

006

- Set CB1 to the Off position (05-215).
- Reconnect J43.

The base 1.7V regulator is bad.

007

- Set CB1 to the Off position (05-215) to power off machine.
- Disconnect the 1.7-volt test jumper from J42.
- Reconnect J17.
- Reconnect J28.
- Reconnect J42.

To find a short circuit on the A-A1 board,

Go To Map 0520, Entry Point A.

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MAP 0540-2

5360 Systems Unit

PAGE 1 OF 4

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0512 | A | 1 | 001 |

001

(Entry Point A)

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set the meter to measure Vdc.
- Connect the meter from J24-6 (+) (05-240) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

MAP DESCRIPTION:

This MAP locates a failing FRU or goes to another MAP.

ENTRY CONDITIONS:

Power status information was recorded as all UV base. The CS light is on with lamp test. F2 is good.

START CONDITIONS:

- Before starting this MAP, perform the operations in MAP 0512.

FRUs PARTIALLY TESTED:

- Protect card
- Base transformer
- Base AC capacitor
- Base 5-volt assembly
- Base power assembly
- Fuse F2
- JA3 cable

Note 1: This jumper permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is from 3 to 5 seconds, or just long enough to get a meter reading.

Does the meter read from 4.5 to 5.5 Vdc?

Y N

4 2

A B

B
1

Base Power - All UV

MAP 0541-2

5360 Systems Unit

PAGE 2 OF 4

002

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J28-5 (-) (05-240) to ground (+).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read less than 4.5 Vdc?

Y N

003

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J24 (05-240).
- Connect the meter from J24-1 (+) on the cable to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read less than 4.5 Vdc?

Y N

004

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
The base power assembly is bad.

005

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
The base 5-volt assembly is bad (05-230).

3
C

04NOV85 PN 4177323

EC 842350 PEC 826487

MAP 0541-2

C
2

Base Power - All UV

MAP 0541-3

5360 Systems Unit

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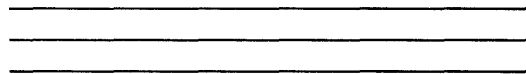
006

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Remove and check fuse F2.
- Reinstall fuse F2 (with a good fuse if bad).
- Use the following procedure to test the base AC capacitor (05-205):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.



- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Is the AC capacitor good (see Note 3)?

Y N

007

The base AC capacitor is bad (05-225).

008

- Reconnect the base AC capacitor.
- The base transformer is bad (05-225).

A
1

Base Power - All UV

MAP 0541-4

5360 Systems Unit

PAGE 4 OF 4

009

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J22 (05-240).
- Connect the meter from J22-D04 (+) on the cable to ground (-).

Does the meter read more than 2 Vdc?

Y N

010

- Reconnect J22.
- Remove the jumper.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA3 (05-220).
- Connect the meter from JA3-B04 (+) to ground (-).

Does the meter read more than 2 Vdc?

Y N

011

- Reconnect JA3.
- The protect card is bad (05-220).

012

The JA3 cable is bad.

013

- Reconnect J22.
- Connect the meter from J22-D04 (+) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 2 Vdc?

Y N

014

- Remove the jumper.
- The base power assembly is bad.

015

- Remove the jumper.
- The protect card is bad (05-220).

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MAP 0541-4

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0511 | A | 1 | 001 |
| 0599 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 3 | 013 | 0500 | A |
| 1 | 002 | 0548 | A |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Disconnect J16 (05-230).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Press the Power Status key.

MAP DESCRIPTION:

This MAP locates the area of failure in the base power.

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the +5V level is UV.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- Lower maple block
- Base transformer
- Base 5-volt assembly
- Base power assembly
- JA3 cable

Do the Power Status lamps indicate: CS, UV, 2?

Y N

002

- Set CB1 to the Off position (05-215).
- Reconnect J16.

Go To Map 0548, Entry Point A.

A
1

Base Power +5V Level UV

MAP 0542-2

5360 Systems Unit

PAGE 2 OF 4

003

- Set CB1 to the Off position (05-215).
- Reconnect J16.
- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set the meter to measure Vdc.
- Connect the meter from J23-1 (+) (05-240) to ground (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Does the meter read more than 4.5 Vdc?

Y N

004

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J24-1 (+) (05-240) on the base power assembly to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

- Keep cables connected.

Does the meter read from 4.5 to 5.5 Vdc?

Y N

005

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J14 and J15 (05-230).
- Set the meter to measure Vac.
- Connect the meter from J14-1 to J15-1 on the cable from the transformer.
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read from 5.0 to 7.0 Vac?

Y N

3 3 3 3
B C D E

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EC 826487 PEC 826380
MAP 0542-2

C D E
2 2 2

Base Power +5V Level UV

5360 Systems Unit

PAGE 3 OF 4

006

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 and TP GND.
 - Reconnect J14 and J15 (05-230).
- The base transformer is bad (05-225).

007

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J14-2 to J15-1 on the base transformer.
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read between 5.0 and 7.0 Vac?

Y N

008

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 and TP GND.
 - Reconnect J14 and J15 (05-230).
- The base transformer is bad (05-225).

009

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 and TP GND.
 - Reconnect J14 and J15 (05-230).
- The base 5-volt assembly is bad.

010

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set the meter to measure ohms.
- Connect the meter from J24-6 to J23-1.

Does the meter read less than 1 ohm?

Y N

F G

B F G
2 2 2

MAP 0542-3

011

The base power assembly is bad.

012

- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Is the power up?

Y N

013

Go To Map 0500, Entry Point A.

014

A loose connection was the only problem.

015

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J22 (05-240).
- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Connect the meter from J22-D04 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 2 Vdc?

Y N

016

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Disconnect JA3 (05-220).
- Connect the meter from JA3-B04 (+) on the upper maple block to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 2 Vdc?

Y N

017

The protect card is bad (05-220)

---or---

The upper maple block is bad.

4 4
H J

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EC 826487 PEC 826380

MAP 0542-3

H J
3 3

Base Power +5V Level UV

MAP 0542-4

5360 Systems Unit

PAGE 4 OF 4

018

The JA3 cable is bad.

019

- Reconnect J22.
- Connect the meter from J22-D04 (+) to ground (-).

Does the meter read more than 2 Vdc?

Y N

020

The base power assembly is bad.

021

The protect card is bad (05-220).

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EC 826487

PEC 826380

MAP 0542-4

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0511 | A | 1 | 001 |
| 0546 | A | 1 | 001 |
| 0599 | A | 1 | 001 |

001

(Entry Point A)

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set the meter to measure Vdc.
- Connect the meter from J25-2 (+) (05-240) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

MAP DESCRIPTION:

This MAP locates a failing FRU in the base power.

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the +12V level is UV.

The CS light is on when the Lamp Test key is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- Lower maple block
- Base transformer
- Base power assembly
- JA3 cable

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Does the meter read from 11.0 and 13.0 Vdc?

Y N

3 2

A B

B
1

Base Power +12V Level UV

MAP 0543-2

5360 Systems Unit

PAGE 2 OF 4

002

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J29 (05-240).
- Set the meter to measure Vac.
- Connect the meter from J29-1 to J29-9 on the cable.
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than 11.0 Vac?

Y N

003

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Reconnect J29.

The base transformer is bad (05-225).

004

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J29-9 to J29-2 on the cable.
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

- Measure the other half of the winding.

Does the meter read more than 11.0 Vac?

Y N

005

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Reconnect J29.

The base transformer is bad (05-225).

3
C

15Feb84 PN 4177325

EC 826487 PEC 826380

MAP 0543-2

A C
1 2

Base Power +12V Level UV

MAP 0543-3

5360 Systems Unit

PAGE 3 OF 4

006

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Reconnect J29.
- Disconnect J25, J26, and J28.
- Press the Power key (power on).

Does the machine power on?

Y N

007

- Reconnect J25, J26, and J28.
- The base power assembly is bad.

008

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J25, J26, and J28.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

009

- The base power assembly is bad.

010

A loose connection was the only problem.

011

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Disconnect J22 (05-240).
- Connect the meter from J22-D05 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

(Step 011 continues)

(Step 011 continued)

Does the meter read more than 2 Vdc?

Y N

012

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Remove the jumper from TP K1 and TP GND.
- Disconnect JA3 (05-220).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Connect the meter from JA3-B05 (+) on the upper maple block to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 2 Vdc?

Y N

013

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

014

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The JA3 cable is bad.

015

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Connect the meter from J22-D05 (+) to ground (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 2 Vdc?

Y N

016

- Set CB1 to the Off position (05-215).
 - Remove the jumper from TP K1 and TP GND.
- The base power assembly is bad.

15Feb84 PN 4177325

EC 826487 PEC 826380

4
D

MAP 0543-3

D
3

**Base Power +12V Level UV
5360 Systems Unit**

MAP 0543-4

PAGE 4 OF 4

017

- Set CB1 to the Off position (05-215).
 - Remove the jumper from TP K1 and TP GND.
- The protect card is bad (05-220).

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PN 4177325

EC 826487

PEC 826380

MAP 0543-4

5360 Systems Unit

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0511 | A | 1 | 001 |
| 0599 | A | 1 | 001 |

001

(Entry Point A)

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set the meter to measure Vdc.
- Connect the meter from J25-1 (+) (05-240) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

MAP DESCRIPTION:

This MAP locates a failing FRU in the base power.

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the +24V level is UV.

The CS light is on when the Lamp Test key is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- Lower maple block
- Base transformer
- Base power assembly
- JA3 cable

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Does the meter read from 22.0 and 26.0 Vdc?

Y N

| | |
|--|--|
| | |
|--|--|

3 2
A B

B
1

**Base Power +24V Level UV
5360 Systems Unit**

MAP 0544-2

PAGE 2 OF 3

002

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J29 (05-240).
- Set the meter to measure Vac.
- Connect the meter from J29-7 to J29-5 on the cable.
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read from 22.0 to 27.0 Vac?

Y N

003

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Reconnect J29.

The base transformer is bad (05-225).

004

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J29-7 to J29-4 on the cable.
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

- Measure the other half of the winding.

Does the meter read from 22.0 to 27.0 Vac?

Y N

005

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Reconnect J29.

The base transformer is bad (05-225).

3
C

15Feb84

PN 4177326

EC 826487

PEC 826380

MAP 0544-2

A C
1 2

Base Power +24V Level UV

5360 Systems Unit

PAGE 3 OF 3

006

- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Reconnect J29.
- Disconnect J25, J26, J23.
- Press the Power key (power on).

Does the machine power on?

Y N

007

The base power assembly is bad.

- Reconnect J28, J25, J26.

008

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J25, J26, J23.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

009

The base power assembly is bad.

010

A loose connection was the only problem.

011

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Disconnect J22 (05-240).
- Connect the meter from J22-B12 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 2 Vdc?

Y N

D E

MAP 0544-3

012

- Reconnect J22.
- Remove the jumper from TP K1 and TP GND.
- Disconnect JA3 (05-220).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Connect the meter from JA3-D12 (+) on the upper maple block to ground (-).

Does the meter read more than 2 Vdc?

Y N

013

- Reconnect JA3.
- The protect card is bad (05-220).

014

The JA3 cable is bad

---or---

The upper maple block is bad.

015

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Connect the meter from J22-B12 (+) to ground (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 2 Vdc?

Y N

016

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- The base power assembly is bad.

017

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- The protect card is bad (05-220).

D E

15Feb84 PN 4177326

EC 826487 PEC 826380

MAP 0544-3

5360 Systems Unit

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0511 | A | 1 | 001 |
| 0599 | A | 1 | 001 |

001

(Entry Point A)

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set the meter to measure Vdc.
- Connect the meter from J23-2 (+) (05-240) to ground (-) (05-220).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

MAP DESCRIPTION:

This MAP locates a failing FRU in the base power.

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the -5V level is UV.

The CS light is on when the Lamp Test key is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- Upper maple block
- Base transformer
- Base power assembly
- JA3 cable

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Does the meter read more than -4.5 Vdc?

Y N

3 2

A B

B
1

**Base Power -5V Level UV
5360 Systems Unit**

MAP 0545-2

PAGE 2 OF 3

002

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J29 (05-240).
- Set the meter to measure Vac.
- Connect the meter from J29-3 to J29-8 on the cable.
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read from 5.0 to 7.0 Vac?

Y N

003

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 and TP GND.
 - Reconnect J29.
- The base transformer is bad (05-225).

004

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J29-6 to J29-8 on the cable.
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

- Measure the other half of the winding.

Does the meter read from 5.0 to 7.0 Vac?

Y N

005

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 and TP GND.
 - Reconnect J29.
- The base transformer is bad (05-225).

3
C

04Dec84 PN 4177327
EC 839954 PEC 826487
MAP 0545-2

A C
1 2

Base Power -5V Level UV

5360 Systems Unit

PAGE 3 OF 3

006

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Reconnect J29.
- Disconnect J23, J25, J26, J27, and J28.
- Press the Power key (power on).

Does the machine power on?

Y N

007

- Reconnect J23, J25, J26, J27, and J28.
- The base power assembly is bad.

008

- Select mode 6.
- Press the Power key (power off).
- Reconnect J25, J27, and J28.
- Press the Power key (power on).

Does the machine power on?

Y N

009

The base power assembly is bad.

010

- Reconnect J23 and J26.
- A loose connection was the only problem.

011

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Disconnect J22 (05-240).
- Connect the meter from J22-D10 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 4.5 Vdc?

Y N

D E

D E

MAP 0545-3

012

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Remove the jumper from TP K1 and TP GND.
- Disconnect JA3 (05-220).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Connect the meter from JA3-B10 (+) on the upper maple block to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 2 Vdc?

Y N

013

- Set CB1 to the Off position (05-215).
- Reconnect JA3.

The protect card is bad (05-220)

----or----

The upper maple block is bad.

014

- Set CB1 to the Off position (05-215).
- Reconnect JA3.

The JA3 cable is bad.

015

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Connect the meter from J22-D10 (+) to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 2 Vdc?

Y N

016

- Remove the jumper.
- The base power assembly is bad.

017

- Remove the jumper.
- The protect card is bad (05-220).

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MAP 0545-3

5360 Systems Unit

PAGE 1 OF 5

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0511 | A | 1 | 001 |
| 0599 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 2 | 004 | 0543 | A |

001

(Entry Point A)

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set the meter to measure Vdc.
- Connect the meter from J27-3 (+) (05-240) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

MAP DESCRIPTION:

This MAP locates a failing FRU in the base power.

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the +8.5V or -12V level is UV.

The CS light is on when the Lamp Test key is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Upper maple block
- Protect card
- Base power assembly
- JA3 cable

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Does the meter read less than 8.0 Vdc?

| | |
|---|---|
| Y | N |
| | |
| 5 | 2 |
| A | B |

B
1

**Base Power +8.5V/-12V Reg UV
5360 Systems Unit**

MAP 0546-2

PAGE 2 OF 5

002

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J28-6 (+) (05-240) on the base power assembly to ground (-) (see note 3).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Note 3: Measure on the base power assembly side of J28. J28 is located directly above the base power assembly and is labeled J28. Do not disconnect J28A.

Does the meter read less than 11.0 Vdc?

Y N

003

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J28-3 (-) on the base power assembly to ground (-) (see note 3).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read less than 11.2 Vdc?

Y N

004

- Set the Unit Emergency switch to the Power Off position (05-205).
- Go To Map 0543, Entry Point A.**

005

The base power assembly is bad.

006

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J27 (05-240).
- Disconnect J28 (05-240).
- Connect the meter from J27-3 (+) on the base power assembly to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

- Measure 8.5 volts to the A1 board.

Does the meter read between 8.0 to 9.0 Vdc?

Y N

||
||

3 3
C D

04NOV85 PN 4177328
EC 842350 PEC 826487
MAP 0546-2

C D
2 2

**Base Power +8.5V/-12V Reg UV
5360 Systems Unit**

MAP 0546-3

PAGE 3 OF 5

007

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Reconnect J27.
- Reconnect J28.

The base power assembly is bad.

008

- Reconnect J27.
- Reconnect J28.
- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Press the Power key (power on).

Does the machine power on?

Y N

009

- Set CB1 to the Off position (05-215).
- Disconnect J22 (05-240).
- Connect the meter J22-D09 (+) to J22-D08 on the cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

010

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Disconnect JA3 (05-220).
- Connect the meter JA3-B09 (+) to JA3-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

4 4 4 4
E F G H

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MAP 0546-3

E F G H
3 3 3 3

Base Power +8.5V/-12V Reg UV

MAP 0546-4

5360 Systems Unit

PAGE 4 OF 5

011

- Set CB1 to the Off position (05-215).
- Reconnect JA3.

The protect card is bad (05-220)

---or---

The upper maple block is bad.

012

- Set CB1 to the Off position (05-215).
- Reconnect JA3.

The JA3 cable from JA3 to J22 is bad.

013

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 4).
- Reconnect J22.
- Connect the meter from J22-D09 (+) to J22-D08 on the cable.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 4.5 Vdc?

Y N

014

- Set the Unit Emergency switch to the Power Off position (05-205).

- Remove the jumper from TP K1 and TP GND.

The base power assembly is bad (05-220).

015

- Set the Unit Emergency switch to the Power Off position (05-205).

- Remove the jumper from TP K1 and TP GND.

The protect card is bad (05-220).

016

A loose connection was the only problem.

Note 4: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

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MAP 0546-4

A
1

Base Power +8.5V/-12V Reg UV

5360 Systems Unit

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017

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Disconnect J22 (05-240).
- Connect the meter from J22-D09 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 2 Vdc?

Y N

018

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Remove the jumper from TP K1 and TP GND.
- Disconnect JA3 (05-220).
- Connect the meter from JA3-B09 (+) to ground (-) on the upper maple block.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the On position (05-215).

Does the meter read more than 2 Vdc?

Y N

019

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The protect card is bad (05-220)

---or---

The upper maple block is bad.

020

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The JA3 cable is bad.

J

MAP 0546-5

021

- Set CB1 to the Off position (05-215).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J22.
- Connect the meter from J22-D09 (+) to ground (-) on the cable.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 2 Vdc?

Y N

022

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Set CB1 to the Off position (05-215).
 - Remove the jumper from TP K1 and TP GND.
- The base power assembly is bad.

023

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Set CB1 to the Off position (05-215).
 - Remove the jumper from TP K1 and TP GND.
- The protect card is bad (05-220).

J

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EC 842350 PEC 826487

MAP 0546-5

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0511 | A | 1 | 001 |
| 0542 | A | 1 | 001 |
| 0599 | A | 1 | 001 |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Disconnect J42 (05-235) (the cable retainer must be released).
- Disconnect J43 (05-235).
- Set the meter to measure ohms.
- Connect the meter from E11 (05-235) to the DC ground board (05-205).

MAP DESCRIPTION:

This MAP locates the failing FRU in the base power.

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the base 1.7V level is UV.

The CS light is on when the Lamp Test key is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Base transformer
- Base 5-volt assembly
- Base 1.7-volt regulator
- E11 ground wire
- JC3 cable

Does the meter read less than 1 ohm?

Y N

002

- Reconnect J42.
- Reconnect J43.

The E11 ground wire from E11 to the DC ground is bad.

A
1

**Base 1.7V UV
5360 Systems Unit**

MAP 0548-2

PAGE 2 OF 7

003

- Reconnect J43.
- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect 1.7V test jumper in J42.
- Jumper from TP K1 (+) to TP GND (-) on the protect card (05-220) (see note 1).
- Set the meter to measure Vdc.
- Connect the meter from J42-2 (+) on the 1.7V test jumper (05-235) to ground (-) (05-220).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

A digital voltmeter is required to measure the 1.7-volt accurately.

Does the meter read more than 1.685V?

Y N

004

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J41-1 (+) (05-235) on the cable to ground (-) (05-220).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than 4.5 Vdc?

Y N

005

- Set the Unit Emergency switch to the Power Off position (05-205).
- Disconnect J16 (05-230).
- Set the meter to measure Vac.
- Connect the meter from J16-1 on the cable from the transformer to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than 4.8 Vac?

Y N

6 4 3 3
B C D E

04NOV85 PN 4177329
EC 842350 PEC 826487
MAP 0548-2

D E
2 2

Base 1.7V UV
5360 Systems Unit
PAGE 3 OF 7

MAP 0548-3

006

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Reconnect J16.
 - Remove the jumper from TP K1 and TP GND.
- The base transformer is bad (05-225).

007

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set the meter to read volts AC.
- Connect the meter from J16-6 (+) to ground (-) on the cable from the transformer.
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than 4.8 Vac?

Y N

008

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Reconnect J16.
 - Remove the jumper from TP K1 and TP GND.
- The base transformer is bad (05-225).

009

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set the meter to read volts DC.
- Reconnect J16.
- Disconnect J41 (05-235).
- Set the meter to measure Vdc.
- Connect the meter from J41-1 (+) on the cable to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read between 4.5 and 5.5 Vdc?

Y N

4 4
F G

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MAP 0548-3

C F G
2 3 3

Base 1.7V UV

MAP 0548-4

5360 Systems Unit

PAGE 4 OF 7

010

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Reconnect J41.
 - Remove the jumper from TP K1 and TP GND.
- The base 5V assembly is bad.

011

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 and TP GND.
- The base 1.7-volt regulator is bad.

012

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Disconnect J43 (05-235).
 - Set the meter to measure Vdc.
 - Connect the meter from J43-09 (+) to J43-08 (-) on the cable.
- Check for 12 Vdc control supply.

Does the meter read between 10.8 and 13.0 Vdc?

Y N

013

- Set CB1 to the Off position (05-215).
 - Remove the 1.7V test jumper from J42.
 - Reconnect J42.
 - Remove the jumper from TP K1 and TP GND.
 - Set the Unit Emergency switch to the Power Enable position (05-205).
 - Reconnect J43.
- The JC3 cable from JC3 to J43 is bad.

5
H

04NOV85 PN 4177329

EC 842350 PEC 826487

MAP 0548-4

H
4

Base 1.7V UV
5360 Systems Unit
PAGE 5 OF 7

MAP 0548-5

014

- Reconnect J43.
- Jumper TP RESET to ground.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Remove the jumper from TP RESET.
- Connect the meter from J42-2 (+) to ground (-).

A digital voltmeter is required to measure the 1.7-volt accurately.

Does the meter read more than 1.685 Vdc?

Y N

A reset may be needed before the regulator will start.

015

- Set CB1 to the Off position (05-215).
- Remove the 1.7V test jumper from J42.
- Reconnect J42.
- Remove the jumper from TP K1 and TP GND.

The base 1.7-volt regulator is bad.

016

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Remove the jumper.
- Disconnect J43 and JC3.
- Set the meter to measure ohms.
- Connect the meter from J43-7 on the cable to JC3-B10 on the cable.

Does the meter read less than 10 ohms?

Y N

017

- Set CB1 to the Off position (05-215).
- Remove the 1.7V test jumper from J42.
- Reconnect J42.

The JC3 cable from JC3 to J43 is bad.

6
J

04NOV85 PN 4177329
EC 842350 PEC 826487
MAP 0548-5

B J
2 5

Base 1.7V UV
5360 Systems Unit

PAGE 6 OF 7

018

- Set CB1 to the Off position (05-215).
- Remove the 1.7V test jumper from J42.
- Reconnect J42.
- Set the Unit Emergency switch to the Power Enable position (05-205).

The protect card is bad (05-220).

---or---

The lower maple block is bad.

019

- Set CB1 to the Off position (05-215).
- Disconnect 1.7V test test jumper from J42.
- Reconnect J42.
- Disconnect J43 (05-235).
- Connect the meter from J43-6 (+) on the cable to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

020

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set the meter to measure ohms.
- Connect the meter from J43-6 (+) on the cable to ground (-).

Does the meter read more than 100 ohms?

Y N

021

- Remove the protect card.
- Connect the meter from J43-6 (+) on the cable to ground (-).

Does the meter read more than 100 ohms?

Y N

7
K L M N

L M N

MAP 0548-6

022

- Disconnect JC3 (05-220).
- Connect the meter from J43-6 (+) on the cable to ground (-).

Does the meter read more than 100 ohms?

Y N

023

The JC3 cable is bad.

024

The lower maple block is bad.

025

The protect card is bad (05-220).

026

- Remove the protect card.
- Connect the meter from J43-6 (+) on the cable to Y33 (-) on the lower maple block.

Does the meter read less than 1 ohm?

Y N

027

- Disconnect JC3 (05-220).
- Connect the meter from J43-6 on the cable to JC3-B13 on the cable.

Does the meter read less than 1 ohm?

Y N

028

The JC3 cable is bad.

029

The lower maple block is bad.

030

The protect card is bad (05-220).

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MAP 0548-6

K
6

Base 1.7V UV
5360 Systems Unit

MAP 0548-7

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031

- Reconnect J43.
- Connect the meter from J43-6 (+) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 4.5 Vdc?

Y N

032

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper.

The protect card is bad (05-220)

---or---

The lower maple block is bad.

033

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper.

The base 1.7-volt regulator is bad.

04NOV85 PN 4177329

EC 842350 PEC 826487

MAP 0548-7

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Disconnect J17 (05-230).
- Disconnect J42 (05-235) (the cable retainer must be released).
- Disconnect J23, J25 and J28 (05-240).
- Disconnect J26, if present.
- Disconnect J27, if present.
- Disconnect J56, if present (05-250).
- Disconnect J66, if present (05-255).
- Set the meter to measure Vdc.
- Connect the meter from J23-2 (-) on the base power assembly (05-240) to ground (+).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

MAP DESCRIPTION:

This MAP locates the cause of the OV condition.

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the -5 level is OV.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Base transformer
- Base power assembly
- JA3 cable
- Base 5-volt assembly

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Does the meter read more than 7.0 Vdc?

Y N

| | |
|--|--|
| | |
|--|--|

3 2
A B

B
1

Base Power -5 Level OV

5360 Systems Unit

PAGE 2 OF 3

002

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J17, J25, J28 and J42.
- Reconnect J23.
- Reconnect J26, if present.
- Reconnect J27, if present.
- Reconnect J56, if present.
- Reconnect J66, if present.
- Connect the meter from J23-2 (-) to ground (+).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than 6.0 Vdc?

Y N

003

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Disconnect J22 (05-240).
- Connect the meter from J22-B06 (+) on the cable to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the On position (05-215).

Does the meter read more than 2 Vdc?

Y N

004

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Disconnect JA3 (05-220).
- Connect the meter from JA3-D06 (+) to JA3-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 2 Vdc?

Y N

C D E F

C D E F

MAP 0551-2

005

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

006

The JA3 cable is bad.

007

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Connect the meter from J22-B06 (+) to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 2 Vdc?

Y N

008

The base power assembly is bad.

009

The protect card is bad (05-220).

010

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J25-2 (+) to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than 13.0 Vdc?

Y N

011

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 and TP GND.
- The base power assembly is bad.

3
G

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EC 826487 PEC 826380

MAP 0551-2

A G
1 2

Base Power -5 Level OV
5360 Systems Unit

MAP 0551-3

PAGE 3 OF 3

012

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Remove the jumper from TP K1 and TP GND.
- The base transformer is bad (05-225).

013

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Reconnect J17, J23, J25, J28 and J42.
- Reconnect J26, if present.
- Reconnect J27, if present.
- Reconnect J56, if present.
- Reconnect J66, if present.

The base transformer is bad.

---or---

The Base 5-volt assembly is bad.

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EC 826487 PEC 826380
MAP 0551-3

5360 Systems Unit

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Disconnect J27 (05-240).
- Disconnect J28 (05-240).
- Set the meter to measure Vdc.
- Connect the meter from J28-4 (+) on the Base Power Assembly (05-240) to ground (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

MAP DESCRIPTION:

This MAP locates the cause of the OV condition

ENTRY CONDITIONS:

The Power Check light is on and the power status indicates that the +8.5V or -12V level is OV.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Base power assembly
- JA3 cable

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

Does the meter read between 7.8 Vdc and 9.3 Vdc?

Y N

| | |
|--|--|
| | |
|--|--|

2 2
A B

A B
1 1

+8.5V/-12V Level OV

5360 Systems Unit

PAGE 2 OF 3

002

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Reconnect J27.
- Reconnect J28.
- Set the Unit Emergency switch to the Power Enable position (05-205).

The base power assembly is bad.

003

- Set the Unit Emergency switch to the Power Off position (05-205).
- Connect the meter from J28-3 (-) on the Base Power Assembly to ground (+).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily.

Does the meter read between 11.2 Vdc and 12.8 Vdc?

Y N

004

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Reconnect J27.
- Reconnect J28.
- Set the Unit Emergency switch to the Power Enable position (05-205).

The base power assembly is bad.

C

C

MAP 0552-2

005

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J27.
- Reconnect J28.
- Disconnect J22 (05-240).
- Connect the meter from J22-B08 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily.

Does the meter read more than 2 Vdc?

Y N

006

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Disconnect JA3 (05-220).
- Connect the meter from JA3-D08 (+) on the upper maple block to ground (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 2 Vdc?

Y N

007

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect JA3.
- Remove the jumper.

The protect card is bad (05-220)

---or---

The upper maple block is bad.

3 3
D E

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MAP 0552-2

D E
2 2

+8.5V/-12V Level OV

MAP 0552-3

5360 Systems Unit

PAGE 3 OF 3

008

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Set CB1 to the Off position (05-215).
 - Remove the jumper.
- The JA3 cable is bad.

009

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Connect the meter from J22-B08 (+) to ground (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read more than 2 Vdc?

Y N

010

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Set CB1 to the Off position (05-215).
 - Remove the jumper.
- The base power assembly is bad.

011

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Set CB1 to the Off position (05-215).
 - Remove the jumper.
- The protect card is bad (05-220).

15Feb84

PN 4177332

EC 826487

PEC 826380

MAP 0552-3

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Disconnect J42 (05-235) (the cable retainer must be released).
- Connect the 1.7V test jumper (05-270) in J42.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

MAP DESCRIPTION:

This MAP locates the cause of the OV condition.

ENTRY CONDITIONS:

The Power Check light is on and the Power Status indicates that the base 1.7V regulator is OV.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- JC3 cable
- Lower maple block
- Base 1.7-volt regulator
- Base DC cable

The machine will power on momentarily. Is the Power Check light off?

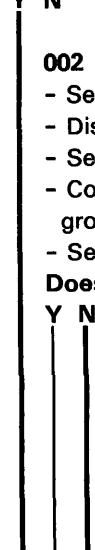
Y N

002

- Set CB1 to the Off position (05-215).
- Disconnect J43 (05-235).
- Set the meter to measure Vdc.
- Connect the meter from J43-5 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N



3 2 2
A B C

B C
1 1

Base 1.7V Regulator OV

MAP 0553-2

5360 Systems Unit

PAGE 2 OF 3

003

- Set CB1 to the Off position (05-215).
- Reconnect J43.
- Remove the protect card.
- Set the meter to measure ohms.
- Connect the meter from Y31 (+) to Y08 (-) on the protect card.

Does the meter read more than 10 ohms?

Y N

004

- Disconnect the 1.7V test jumper.
 - Reconnect J42.
- The protect card is bad (05-220).

005

- Disconnect the 1.7V test jumper.
 - Reconnect J42.
- The JC3 cable from JC3 to JA3 is bad
---or---
The lower maple block is bad.

006

- Set CB1 to the Off position (05-215).
- Reconnect J43.
- Set CB1 to the On position (05-215).
- Connect the meter from J43-5 (+) to ground (-).

Does the meter read more than 2 Vdc?

Y N

007

- Set CB1 to the Off position (05-215).
 - Disconnect the 1.7V test jumper.
 - Reconnect J42.
- The base 1.7-volt regulator is bad.

008

- Press the Power key (power on).

Does the meter vary toward 0.0 Vdc?

Y N

3 3
D E

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EC 826487 PEC 826380
MAP 0553-2

A D E
1 2 2

Base 1.7V Regulator OV

MAP 0553-3

5360 Systems Unit

PAGE 3 OF 3

009

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7V test jumper.
- Reconnect J42.

The protect card is bad (05-220).

010

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7V test jumper.
- Reconnect J42.

The base 1.7-volt regulator is bad.

011

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7V test jumper.
- Reconnect J42.

The base DC cable is bad.

The sense line has an open circuit from the A-A1 board to J42-2.

- See FLD net YA160EA2 and net YA160EA3.

15Feb84 PN 4177333

EC 826487 PEC 826380

MAP 0553-3

A2 Power Supply - Any OV

MAP 0555-1

5360 Systems Unit

PAGE 1 OF 5

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

001

(Entry Point A)

MAP DESCRIPTION:

This MAP locates the failing FRU for the A2 power supply.

ENTRY CONDITIONS:

Power Check light is on.
A2 power supply indicates ANY OV condition.
CS light is on when Lamp Test is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- Lower maple block
- E12 ground wire
- JA2 cable
- A2 power assembly
- A2 AC capacitor
- A2 transformer

Is the A2 power supply installed (05-205)?

Y N

|

002

The protect card is bad (05-220)

---or---

The upper maple block is bad.

A
1

A2 Power Supply - Any OV
5360 Systems Unit

MAP 0555-2

PAGE 2 OF 5

003

- Set CB1 to the Off position (05-215).
- Disconnect J51 (05-250).
- Disconnect J52 (05-250).
- Disconnect J56 (05-250).
- Set the meter to measure ohms.
- Connect the meter from E12 to ground.

Does the meter read less than 1 ohm?

Y N

004

- Reconnect J51.
 - Reconnect J52.
 - Reconnect J56.
- The E12 ground wire from E12 to the DC ground board is bad.

005

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter from J56-1 (+) on the A2 power supply to ground (-).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Does the meter read more than 5.8 Vdc?

Y N

006

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J51, J52 and J56.
- Disconnect J54 (05-250).
- Connect the meter from J54-11 (+) to J54-4 (-) on cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

|
|
|

4 3 3
B C D

15Feb84

PN 4177334

EC 826487

PEC 826380

MAP 0555-2

C D
2 2

A2 Power Supply - Any OV

5360 Systems Unit

PAGE 3 OF 5

007

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Reconnect J54.
- Disconnect JA2 (05-220).
- Connect the meter from JA2-D07 (+) to JA2-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

008

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

009

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The JA2 cable from JA2 to J54 is bad.

010

- Connect the meter from J54-3 (+) to J54-4 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

011

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA2 (05-220).
- Connect the meter JA2-B03 (+) to JA2-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

E F G

E F G

MAP 0555-3

012

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

013

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The JA2 cable from JA2 to J54 is bad.

014

- Connect the meter from J54-4 (+) to J54-5 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

015

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JA2 (05-220).
- Connect the meter from JA2-B08 (+) to JA2-B06 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

016

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

017

- Set CB1 to the Off position (05-215).
 - Reconnect JA2.
- The JA2 cable from JA2 to J54 is bad.

4
H

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EC 826487 PEC 826380

MAP 0555-3

B H
2 3

A2 Power Supply - Any OV

MAP 0555-4

5360 Systems Unit

PAGE 4 OF 5

018

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Connect the meter from J54-11 (+) to J54-4 (-) on the cable.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read less than 4.5 Vdc?

Y N

019

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
The protect card is bad (05-220).

020

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
The A2 power assembly is bad.

021

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J56, J51 and J52.
- Disconnect J55, J60 and J61.
- Set the meter to measure Vac.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Connect the meter from J60-1 to E15 and from J60-2 to E15 on the cable from the transformer.

Does the meter read more than 5.8 Vac for both connections?

Y N

022

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
The A2 power assembly is bad.

5
J

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EC 826487 PEC 826380
MAP 0555-4

J
4

A2 Power Supply - Any OV

MAP 0555-5

5360 Systems Unit

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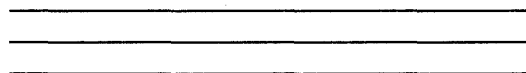
023

- Remove the jumper from TP K1 and TP GND.
- Set CB1 to the Off position (05-215).

- Use the following procedure to test the A2 AC capacitor (05-250):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

Is the AC capacitor good (see note 3)?

Y N

024

The A2 AC capacitor is bad.

025

The A2 transformer is bad (05-250).

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MAP 0555-5

A2 1.7V Regulator OV

MAP 0556-1

5360 Systems Unit

PAGE 1 OF 4

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

001
(Entry Point A)

MAP DESCRIPTION:
This MAP locates the cause of the OV condition.

ENTRY CONDITIONS:
The Power Check light is on and the power status indicates that the A2 1.7V regulator is OV.

START CONDITIONS:
None

FRUs PARTIALLY TESTED:
Protect card
Lower maple block
JA2 cable
A2 1.7-volt regulator
A2 DC cable

Is the A2 power supply installed (05-205)?

Y N

|
|
|
|
|
|
|

002
The protect card is bad (05-220)
---or---
The upper maple block is bad.

- 003**
- Set CB1 to the Off position (05-215).
 - Disconnect J66 (05-255).
 - Connect the 1.7V test jumper (05-270) in J66.
 - Set CB1 to the On position (05-215).
 - Press the Power key (power on).

Does the machine power on?

Y N

|
|

4 2
A B

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MAP 0556-1

B
1

A2 1.7V OV

MAP 0556-2

5360 Systems Unit

PAGE 2 OF 4

004

- Set CB1 to the Off position (05-215).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set the meter to measure Vdc.
- Connect the meter from J66-1 (+) on the A2 1.7V regulator to ground (-).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

A digital voltmeter is required to measure the 1.7V accurately.

Does the meter read more than 1.754 Vdc?

Y N

005

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Disconnect J67 (05-255).
- Connect the meter from J67-5 (+) to J67-8 (-) on the cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

006

- Set CB1 to the Off position (05-215).
- Reconnect J67.
- Disconnect the protect card from the upper maple block.
- Connect the meter from G11 (+) to J08 (-) on the protect card.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

007

- Set CB1 to the Off position (05-215).
 - Disconnect the 1.7V test jumper.
 - Reconnect J66.
- The protect card is bad (05-220).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

4 3 3
C D E

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MAP 0556-2

D E
2 2

A2 1.7V OV

MAP 0556-3

5360 Systems Unit

PAGE 3 OF 4

008

- Set CB1 to the Off position (05-215).
- Disconnect the 1.7V test jumper.
- Reconnect J66.

The upper maple block is bad

---or---

The JA2 cable from J67 to JA2 is bad.

009

- Set CB1 to the Off position (05-215).
- Reconnect J67.
- Set CB1 to the On position (05-215).
- Connect the meter from J67-5 (+) on the cable to ground (-).

Does the meter read more than 4.5 Vdc?

Y N

010

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Disconnect the 1.7V test jumper.
- Reconnect J66.

The A2 +1.7V regulator is bad.

011

- Press the Power key (power on).

Does meter vary toward 0.0 Vdc?

Y N

012

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Disconnect the 1.7V test jumper.
- Reconnect J66.

The protect card is bad (05-220).

013

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Disconnect the 1.7V test jumper.
- Reconnect J66.

The A2 +1.7V regulator is bad.

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MAP 0556-3

A C
1 2

A2 1.7V OV

MAP 0556-4

5360 Systems Unit

PAGE 4 OF 4

014

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.

The A2 1.7V regulator is bad.

015

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Disconnect the 1.7V test jumper.
- Reconnect J66.

The A2 DC cable is bad.

The sense lines are open from the A-A2 board to J66.
- See FLD net YB200EA2 and net YB200EA3.

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MAP 0556-4

Dead Machine (CB1)

MAP 0561-1

5360 Systems Unit

PAGE 1 OF 7

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0502 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 7 | 056 | 9750 | B |
| 7 | 058 | 9750 | B |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Remove the cover from the AC box (05-215).

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

- Disconnect the line cord from the power outlet.
- Set the meter to measure ohms.
- Connect the meter from the ground contact on the line cord plug to ground on the frame.

(Step 001 continues)

MAP DESCRIPTION:

This MAP leads to the failing FRU (inside the AC box) that caused the dead machine (CB1).

ENTRY CONDITIONS:

The machine is connected to the power line. CB1 is tripped and the Unit Emergency switch is set to Power Off.

START CONDITIONS:

- Before starting this MAP, perform the operations in MAP 0502.

FRUs PARTIALLY TESTED:

- CB1
- AC cable
- AC fuse holder (F1,F2,F3,F4,F5)
- Relay K1
- Arc suppressor
- Line cord
- Line filter
- Gate fan
- Power fan
- Control transformer
- Base transformer
- A2 transformer
- A3 transformer
- Expansion transformer
- Expansion AC cable
- Expansion fan
- TB1
- Diskette drive motor

Dead Machine (CB1)

5360 Systems Unit

PAGE 2 OF 7

(Step 001 continued)

Does the meter read less than 1 ohm?

Y N

002

The line cord is bad

---or---

The ground connection for the line cord at the line filter box is loose.

- After repairing the above FRU(s), continue with the MAP.

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

003

- Connect the meter across the line contacts of the line cord plug.

Does the meter read more than 75 k-ohms?

Y N

004

- Disconnect the AC wires (05-215) (from the line filter to CB1 at the circuit filter (05-215).

- Connect the meter across the line contact of the line cord plug.

Does the meter read more than 75 k-ohms?

Y N

005

The line cord is bad

---or---

The line filter assembly is bad.

006

CB1 is bad.

007

- Connect the meter from each line contact of the line cord to ground.

Does the meter read more than 75 k-ohms?

Y N

A B

A B

MAP 0561-2

008

- Disconnect the AC wires (from the line filter to CB1) at the Circuit breaker.

- Connect the meter across the line contact of the line cord plug.

Does the meter read more than 75 k-ohms?

Y N

009

The line cord is bad

---or---

The line filter assembly is bad.

010

CB1 is bad.

011

- Remove and check fuse F1 (05-215).

- Reinstall fuse F1 (with a good fuse if bad).

- Disconnect J01 (05-215).

- Connect the meter from J01-1 on the transformer to ground.

Does the meter read more than 75 k-ohms?

Y N

012

- Reconnect J01.

The control transformer is bad.

013

- Connect the meter from J01-1 to J01-3 on the AC cable.

Does the meter read more than 75 k-ohms?

Y N

014

- Connect the meter from K1-6 to K1-4 (05-215).

Does the meter read more than 75 k-ohms after the capacitor in RC-1 has charged?

Y N

3 3 3
C D E

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PN 4177336

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PEC 826380

MAP 0561-2

C D E
2 2 2

Dead Machine (CB1)

5360 Systems Unit

PAGE 3 OF 7

015

- Reconnect J01.
The arc suppressor (RC-1) (05-215) is bad
---or---
The relay (K1) is bad.
After repairing,
Go to Page 1, Step 001, Entry Point A.

016

- Connect the meter from K1-5 to K1-3.
Does the meter read more than 75 k-ohms after the capacitor in RC-2 has charged?
Y N

017

- Reconnect J01.
The arc suppressor (RC-2) is bad
---or---
The relay (K1) is bad.
After repairing,
Go to Page 1, Step 001, Entry Point A.

018

- Reconnect J01.
The AC cable is bad
---or---
CB1 is bad
---or---
AC fuse holder (F1) is bad.

019

- Connect the meter from J01-1 on the AC cable to ground.
Does the meter read more than 75 k-ohms?
Y N

020

- Reconnect J01.
The AC cable is bad
---or---
CB1 is bad
---or---
Relay K1 is bad.

F

MAP 0561-3

021

- Connect the meter from J01-3 on the AC cable to ground.
Does the meter read more than 75 k-ohms?

Y N

022

- Reconnect J01.
The AC cable is bad.
---or---
CB1 is bad
---or---
Relay K1 is bad.

023

- Install a good fuse for any fuse that is bad (F2, F3, F4 and F5).
- Reconnect J01.
- Connect the meter from K1-4 (05-215) to ground.
Does the meter read more than 75 k-ohms?

Y N

024

- Disconnect J02 (05-225).
- Connect the meter from K1-4 (05-215) to ground.
Does the meter read more than 75 k-ohms?

Y N

025

- Reconnect J02.
- Disconnect J03 (05-250) if present.
- Connect the meter from K1-4 (05-205) to ground.

Does the meter read more than 75 k-ohms?

Y N

F

6 6 6 4
G H J K

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EC 826487 PEC 826380
MAP 0561-3

K
3

Dead Machine (CB1)

5360 Systems Unit

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026

- Reconnect J03 if present.
- Disconnect J04 (05-260) if present.
- Connect the meter from K1-4 (05-205) to ground.

Does the meter read more than 75 k-ohms?

Y N

027

- Reconnect J04 (05-260), if present.
- Disconnect J05 (05-205).
- Connect the meter from K1-4 to ground.

Does the meter read more than 75 k-ohms?

Y N

028

- Reconnect J05.
- Disconnect J06 (05-205).
- Connect the meter from K1-4 (05-215) to ground.

Does the meter read more than 75 k-ohms?

Y N

029

- Reconnect J06.
- Disconnect J07 (05-205).
- Connect the meter from K1-4 (05-215) to ground.

Does the meter read more than 75 k-ohms?

Y N

030

- Reconnect J07.
- Disconnect J08 (05-205).
- Connect the meter from K1-4 (05-215) to ground.

Does the meter read more than 75 k-ohms?

Y N

6 6 6 6 6
L M N P Q R

R

MAP 0561-4

031

- Reconnect J08.
- Disconnect J94 (05-205).
- Connect the meter from K1-4 to ground.

Does the meter read more than 75 k-ohms?

Y N

032

- Reconnect J94 (05-205).
- Disconnect J95 (05-285).
- Connect the meter from K1-4 to ground.

Does the meter read more than 75 k-ohms?

Y N

033

- Reconnect J95.
- Disconnect and label each terminal on the output side of TB1 (05-275).
- Verify that all terminals on these cables do not touch any other terminal or ground.
- Connect the meter, one at a time, from each terminal on each cable to ground.

Do any of the terminals measure less than 75 k-ohms?

Y N

034

- Disconnect each fuse holder (F2, F3, F4, F5) one at a time.
- Connect the meter from each fuse holder contact to ground.

Does the meter read more than 75 k-ohms for each fuse holder?

Y N

035

- Reconnect all the cables.
- The AC fuse holder with less than 75 k-ohms to ground is bad.

6 5 5 5
S T U V

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MAP 0561-4

T U V
4 4 4

Dead Machine (CB1)

MAP 0561-5

5360 Systems Unit

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036

- Reconnect AC cable to file B to TB1-3 and TB1-4.

The AC cable is bad

---or---

TB1 is bad

Relay

---or---

K1 is bad.

037

- Reconnect all the cables.

The load connected to the cable which reads less than 75 k-ohms is bad.

- Use table 1 to determine the failing load.

---or---

The cable to this load is bad.

Table 1

--- File A and B AC Cable ---

File A TB1-1 TB1-4 Go to Map 9750, Entry Point B.

File B TB1-3 TB1-6 Go to Map 9750, Entry Point B.

10SR File Fans Go to MAP 9750, Entry Point B.

--- Expansion AC cable ---

File C TB1-3 TB1-6 Go to Map 9750, Entry Point B.

File D TB1-1 TB1-4 Go to Map 9750, Entry Point B.

Wires in cable to Expansion Fan TB1-3 TB1-6 Go to MAP 9750, Entry Point B.

Wires in Expansion transformer TB1-5 TB1-8 (The Expansion AC cable is bad).

10SR file fans Go to MAP 9750, Entry Point B.

038

- Reconnect J95.

The Expansion transformer is bad (05-285).

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MAP 0561-5

L 4
M 4
N 4
P 4
Q 4
S 4

Dead Machine (CB1)

5360 Systems Unit

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039

- Reconnect J94 (05-205).
- The Expansion fan (05-205) is bad.

040

- Reconnect J08.
- The disk fan is bad.

041

- Reconnect J07.
- The diskette drive motor is bad.

042

- Reconnect J06.
- The gate fan is bad.

043

- Reconnect J05.
- The power fan is bad.

044

- Reconnect J04.
- The A3 transformer is bad.

G 3
H 3
J 3

MAP 0561-6

045

- Reconnect J03.
- The A2 transformer is bad.

046

- Reconnect J02.
- The base transformer is bad.

047

- Disconnect J01 (05-215).
- Set the meter to measure Vac (highest range).
- Connect the meter J01-1 to J01-3 on the AC cable.
- Reconnect the line cord.
- Set CB1 to the On position (05-215).

Does the meter read more than 200 Vac?

Y N

048

- Set CB1 to the Off position (05-215).
- Disconnect the line cord.
- Set the meter to measure ohms.
- Connect the meter from J01-1 to CB1-L2.
- Set CB1 to the On position (05-215).

Does the meter read less than 1 ohm?

Y N

049

- CB1 is bad
- or---
- The AC cable is bad (J01-1 to CB1-T2).

050

- Connect the meter from J01-3 to CB1-L1.
- Does the meter read less than 1 ohm?**

Y N

051

- CB1 is bad
- or---
- The AC cable is bad (J01-3 to CB1-T1).

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7 7
W X

MAP 0561-6

W X
6 6

Dead Machine (CB1)

5360 Systems Unit

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052

The line cord is bad

---or---

The line filter is bad

---or---

The AC wires are bad.

053

- Set CB1 to the Off position (05-215).
- Reconnect J01.
- Disconnect AC cable to disk drive A from TB1-1 and TB1-4.
- Disconnect AC cable to file B from TB1-3 and TB1-6.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Did the machine power on and stay on?

Y N

054

CB1 is bad.

055

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect AC cable to file B (TB1-3 and TB1-6).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Did the machine power on and stay on?

Y N

056

- Set CB1 to the Off position (05-215).
- Reconnect AC cable to file A (TB1-1 and TB1-4).
- Set CB1 to the On position (05-215).

To find short circuit in file B,

Go To Map 9750, Entry Point B.

Y

MAP 0561-7

057

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect AC cable to file A (TB1-1 and TB1-4).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Did the machine power on and stay on?

Y N

058

To find short circuit in file A,

Go To Map 9750, Entry Point B.

059

An intermittant short circuit was the only problem.

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MAP 0561-7

Y

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0502 | B | 2 | 002 |
| 0509 | A | 1 | 001 |
| 0509 | B | 2 | 002 |
| 0511 | B | 2 | 002 |
| 0584 | B | 2 | 002 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 5 | 007 | 0500 | A |
| 12 | 034 | 1701 | A |
| 13 | 041 | 1701 | A |

001

(Entry Point A)

- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter TP +5 (+) to TP GND (-) on the protect card (05-220).

MAP DESCRIPTION:

This MAP finds the failing FRU which causes a DC voltage fuse to be bad or a control supply voltage to be missing.

ENTRY CONDITIONS:

There is a control supply voltage missing or a DC voltage fuse is bad.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

| | |
|----------------------|--------------|
| Upper maple block | Protect card |
| Lower maple block | B-A1 board |
| Control transformer | B-A2 board |
| Control power asm | AC cable |
| Control AC capacitor | JA2 cable |
| Base 1.7V regulator | JA3 cable |
| A2 power assembly | JA4 cable |
| A3 power assembly | JA1 cable |
| A2 1.7V regulator | JC3 cable |
| Control cable | Fuse F1 |
| DC fuse holder | Fuse F7 |
| Jumper assembly(J32) | Fuse F8 |
| JA1 cable | Fuse F9 |

B-A1 board

JA4 cable

Jumper assembly (J32)

(Step 001 continues)

(Step 001 continues)

**Bad Fuses or Missing CS Level
5360 Systems Unit**

MAP 0572-2

PAGE 2 OF 17

(Step 001 continued)

(Step 001 continued)

A3 1.7-volt regulator/preload assembly

A3 cable from J74 to J70

A3 DC cable from J69 to 1A-A3.

Does the meter read more than 4.5 Vdc?

Y N

002

(Entry Point B)

- Set CB1 to the Off position (05-215).
- Disconnect J13 (05-215) (see note 1).
- Remove and check fuses F7, F8 and F9.
- Reinstall all fuses (with good fuses for any fuse that is bad).
- Set CB1 to the On position (05-215).
- Connect the meter to the J13 pins in table 1 on the cable from the control power assembly.

Note 1: Disconnecting J13 isolates the control power assembly ground from frame ground.

Table 1 J13

| Supply Voltage (Vdc) | Low Limit (Vdc) | Measure at pins (+) to (-) | |
|----------------------|-----------------|----------------------------|---|
| +5 | +4.5 | 6 | 7 |
| +12 | +11 | 10 | 7 |
| -5 | -4.5 | 1 | 7 |

Does every level read above the low limit (Vdc) in table 1?

Y N

1
7 7 3
A B C

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PEC 839954

MAP 0572-2

003

- Set CB1 to the Off position (05-215).
- Reconnect J13.

DANGER

High voltage is present in the AC box on the line filter when the line cord is connected to the power outlet.

Table 2 J12

| Supply Voltage | Low Limit (Vdc) | Measure at pins (+) | Measure at pins (-) |
|----------------|-----------------|---------------------|---------------------|
| +5 | +4.5 | 7 | 3 |
| +12 | +11 | 9 | 3 |
| -5 | -4.5 | 8 | 3 |

- Remove the cover from the AC box.
- Disconnect J12 (05-215).
- Remove and check fuses F7, F8 and F9.
- Reinstall all fuses (with good fuses for any fuse that is bad).
- Set CB1 to the On position (05-215).
- Connect the meter to the J12 pins in table 2 on the control power assembly.

Does every level read above the low limit (Vdc) in table 2?

Y N

Y | N

004

- Set CB1 to the Off position (05-215).
- Reconnect J12.
- Disconnect J11 (05-215).
- Set the meter to measure Vac.
- Connect the meter to the J11 pins as shown in table 3 (on the cable).
- Set CB1 to the On position (05-215).

Table 3 J11

| Supply Voltage | Low Limit | Measure at pin to pin | |
|----------------|-----------|-----------------------|----|
| +5 | 4.5Vac | 1 | 5 |
| +5 | 4.5Vac | 2 | 5 |
| +12 | 11Vac | 8 | 7 |
| +12 | 11Vac | 9 | 7 |
| -5 | 4.5Vac | 11 | 10 |
| -5 | 4.5Vac | 12 | 10 |

Does every level read above the low limit (Vac) in table 3?

Y N

005

- Set CB1 to the Off position (05-215).
- Reconnect J11.
- Disconnect J01 (05-215).
- Set the meter to measure Vac (highest range).
- Connect the meter from J01-1 to J01-3 on the AC cable from CB1.
- Set CB1 to the On position (05-215).

Does the meter read between 200 Vac and 250 Vac?

Y N

006

- Set CB1 to the Off position (05-215).
- Remove and check fuse F1.

Is fuse F1 bad?

Y N

G H J
4 4 4

Bad Fuses or Missing CS Level

MAP 0572-5

5360 Systems Unit

PAGE 5 OF 17

007

- Reinstall fuse F1.
- Reconnect J01.
- Set CB1 to the On position (05-215).

Go To Map 0500, Entry Point A.

008

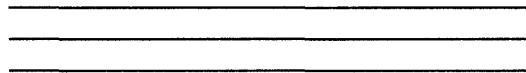
- Reconnect J01.
- The AC cable from F1 to J01 is bad.

009

- Set CB1 to the Off position (05-215).
- Reconnect J01.
- Use the following procedure to test the control AC capacitor (05-215):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

Is the AC capacitor good (see note 3)?

Y N

010

- Reconnect the leads to the AC capacitor.
- The control AC capacitor is bad.

6
K

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 MAP 0572-5

D F K
3 4 5

Bad Fuses or Missing CS Level

MAP 0572-6

5360 Systems Unit

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011

- Reconnect the leads to the AC capacitor.
The control transformer is bad
---or---
The control power assembly is bad.

012

- Set CB1 to the Off position (05-215).
 - Reconnect J11.
- The control power assembly is bad
---or---
The control transformer is bad.

013

- Set CB1 to the Off position (05-215).
- Reconnect J12.

Was fuse F8 bad?

Y N

014

- Install a good fuse for any fuse that is bad (F7, F8 or F9).
- The control cable from J13 to J12 is bad.
---or---
The DC fuse holder is bad.

015

- Install a good fuse for any fuse that is bad (F7, F8 or F9).
- The DC fuse holder is bad.
---or---
The control cable from J13 to J12 is bad.
---or---
The control power assembly is bad.

5360 Systems Unit

016

- Set CB1 to the Off position (05-215).
- Reconnect J13.
- Disconnect J43 (05-235).
- Disconnect JC3 (05-220).
- Set CB1 to the On position (05-215).
- Connect the meter to the JC3 and J43 pins in table 4 on the cables.

Table 4 JC3 and J43 on the cable

| | Supply Voltage | Low Limit (Vdc) | Measure at pins (+) | to (-) |
|-----|----------------|-----------------|---------------------|--------|
| JC3 | +5 | +4.5 | D03 | D08 |
| JC3 | +5 | +4.5 | D11 | D08 |
| JC3 | +12 | +11 | D07 | D08 |
| JC3 | -5 | -4.5 | D04 | D08 |
| J43 | +12 | +11 | 9 | 8 |

Does every level read above low limit (Vdc) in table 4?

Y N

017

- Set CB1 to the Off position (05-215).
 - Reconnect J43.
 - Reconnect JC3.
 - Install a good fuse for any fuse that is bad (F7, F8 or F9).
- The JC3 cable is bad.

L
7

Bad Fuses or Missing CS Level

MAP 0572-8

5360 Systems Unit

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018

- Set CB1 to the Off position (05-215).
- Remove protect card (05-220).
- Reconnect JC3.
- Set CB1 to the On position (05-215).
- Connect the meter to the pins on the lower maple block (see table 5).

Table 5 Lower maple block

| Supply Voltage | Low Limit (Vdc) | Measure at pins (+) | Measure at pins (-) |
|----------------|-----------------|---------------------|---------------------|
| +5 | +4.5 | Y03 | Y08 |
| +12 | +11 | Y07 | Y08 |
| -5 | -4.5 | Y04 | Y08 |

Does every level read above the low limit (Vdc) in table 5?

Y N

019

- Set CB1 to the Off position (05-215).
- Reconnect J43.
- Reinstall the protect card (05-220).
- Install a good fuse for any fuse that is bad (F7, F8 or F9).

The lower maple block is bad.

9
M

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MAP 0572-8

020

- Set CB1 to the Off position (05-215).
- Reconnect the protect card to the lower maple block only.

(Entry Point C)

- Disconnect JC2 (05-220) (see note 4).
- Set CB1 to the On position (05-215).
- Connect the meter to the pins in table 6 on the protect card (05-220).

Note 4: A jumper card will be installed for any feature cable not present.

Table 6 Protect Card

| Supply Voltage | Low Limit (Vdc) | Measure at pins (+) | Measure at pins (-) |
|----------------|-----------------|---------------------|---------------------|
| +5 | +4.5 | P03 | P08 |
| +12 | +11 | P07 | P08 |
| -5 | -4.5 | P06 | P08 |

Does every level read above low limit (Vdc) in table 6?

Y N

021

- Set CB1 to the Off position (05-215).
- Reconnect JC2.
- Reconnect J43.
- Reinstall the protect card.
- Install a good fuse for any fuse that is bad (F7, F8 or F9).

The protect card is bad (05-220)

---or---

The lower maple block is bad

---or---

The jumper assembly (at JC2) is bad.

022

- Set CB1 to the Off position (05-215).
- Reconnect the protect card to the upper maple block.
- Disconnect JA1 (05-220).
- Disconnect JA3 (05-220).
- Disconnect cable JA2, if present (see note 5).
- Disconnect cable JA4, if present (see note 5).
- Set CB1 to the On position (05-215).
- Connect the meter to the JA3 pins on the upper maple block in table 7.

Note 5: A jumper card will be installed for any feature cable not present.

Table 7 JA3

| Supply Voltage | Low Limit (Vdc) | Measure at pins (+) | Measure at pins (-) |
|----------------|-----------------|---------------------|---------------------|
| +5 | +4.5 | B03 | B08 |
| +12 | +11 | B07 | B08 |
| -5 | -4.5 | B06 | B08 |

Does every level read above low limit (Vdc) in table 7?

Y N

023

- Set CB1 to the Off position (05-215).
 - Install a good fuse for any fuse that is bad (F7, F8 or F9).
 - Reconnect all cables.
- The upper maple block is bad.

024

- Set CB1 to the Off position (05-215).
- Reconnect JA1.
- Set CB1 to the On position (05-215).
- Connect the meter to the JA3 pins on the upper maple block in table 7.

Does every level read above low limit (Vdc) in table 7?

Y N

1
2
P

1
1
Q

0
1
0

Bad Fuses or Missing CS Level

MAP 0572-11

5360 Systems Unit

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025

- Set CB1 to the Off position (05-215).
- Disconnect B-A1J4D (10-215).
- Install a good fuse for any fuse that is bad (F7, F8 or F9).
- Set CB1 to the On position (05-215).
- Connect the meter to the JA3 pins on the upper maple block in table 7.

Table 7 JA3

| Supply Voltage | Low Limit (Vdc) | Measure at pins (+) to (-) | |
|----------------|-----------------|----------------------------|-----|
| +5 | +4.5 | B03 | B08 |
| +12 | +11 | B07 | B08 |
| -5 | -4.5 | B06 | B08 |

Does every level read above low limit (Vdc) in table 7?

Y N

026

- Set CB1 to the Off position (05-215).
- Install a good fuse for any fuse that is bad (F7, F8 or F9).
- Reconnect JC2.
- Reconnect JA2, if present.
- Reconnect JA3, if present.
- Reconnect JA4, if present.
- Reconnect J43.
- Reconnect B-A1J4D (10-215).

The JA1 cable from JA1 to B-A1J4D is bad.

027

- Set CB1 to the Off position (05-215).
- Reconnect JC2.
- Reconnect JA2, if present.
- Reconnect JA3, if present.
- Reconnect JA4, if present.
- Reconnect J43.
- Reconnect B-A1J4D (10-215).

The B-A1 board is bad.

---or---

The B-A2 board is bad.

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PN 4177341

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PEC 839954

MAP 0572-11

P
1
0

Bad Fuses or Missing CS Level
5360 Systems Unit

S T U

MAP 0572-12

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028

- Press and hold the Lamp Test key.

Is the CS light on?

Y N

029

- Set CB1 to the Off position (05-215).
- Disconnect JA1 (05-220).
- Jumper JA1-B03 on the upper maple block to JA1-B03 on the cable.
- Jumper JA1-D02 (cable) to TP GND.
- Set CB1 to the On position (05-215).

Is the CS light on?

Y N

030

- Set CB1 to the Off position (05-215).
- Disconnect B-A1J4D (10-215).
- Connect the meter B-A1J4D-D03 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4,5 Vdc?

Y N

031

- Set CB1 to the Off position (05-215).
 - Remove all jumpers.
 - Reconnect JA1, JA3, J43 and B-A1J4D.
 - Reconnect JA2, if present.
 - Reconnect JA4, if present.
 - Reconnect JC2, if present.
- Cable from JA1 to B-A1J4D is bad.

032

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter B-A1J4D-B02 on the cable to ground.

Does the meter read less than 1 ohm?

Y N

1
3
R

S T U

033

- Remove all jumpers.
 - Reconnect all cables.
- The JA1 cable is bad.

034

- Reconnect all cables.
 - Remove the jumper from JA1-D02 (cable) to TP GND.
 - Set CB1 to the On position (05-215).
- Go To Map 1701, Entry Point A.**

035

- Set CB1 to the Off position (05-215).
- Remove all jumpers.
- Reconnect JA1.
- Jumper JA3-B02 on the upper maple block to ground.
- Set CB1 to the On position (05-215).

Is the CS light on?

Y N

036

- Set CB1 to the Off position (05-215).
 - Install a good fuse for any fuse that is bad (F7, F8 or F9).
 - Reconnect all cables.
 - Remove the jumper from JA3-B02 on the upper maple block to ground.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

037

- Set CB1 to the Off position (05-215).
- Disconnect JA1 and J4D.
- Set the meter to measure ohms.
- Connect the meter JA1-B04 on the cable to B-A1J4D-D04 on the cable.

Does the meter read less than 1 ohm?

Y N

1
3
V

W

30Jun86

PN 4177341

EC 842375

PEC 839954

MAP 0572-12

R V W
1 1 1
2 2 2

Bad Fuses or Missing CS Level
5360 Systems Unit

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038

- Reconnect all cables.
 - Remove the jumper from JA3-B02 on the upper maple block to ground.
- The JA1 cable from JA1 to B-A1J4D is bad.

039

- Connect the meter JA1-B08 to B-A1J4-D08.
- Does the meter read less than 1 ohm?**

Y N

040

- Reconnect all cables.
 - Remove the jumper from JA3-B02 on the upper maple block to ground.
- The JA1 cable from JA1 to B-A1J4D is bad.

041

- Reconnect JA3 and J43.
 - Remove the jumper from JA3-B02 on the upper maple block to ground.
 - Set CB1 to the On position (05-215).
- Go To Map 1701, Entry Point A.**

042

- Set CB1 to the Off position (05-215).
- Jumper JA3-B02 to JA3-B08 on the upper maple block.
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

043

- Set CB1 to the Off position (05-215).
- Disconnect JA1 (05-220).
- Set the meter to measure ohms.
- Connect the meter from JA1-D12 to JA1-B08 on the cable.
- Press and hold the Power Status key.

Does the meter read less than 5 ohms?

Y N

1
4
X Y Z

Y Z

MAP 0572-13

044

- Reconnect JA1.
 - Disconnect B-A1J4D (10-215).
 - Connect the meter from J4D-B12 to J4D-D08 on the control panel.
 - Press and hold the Power Status key.
- Does the meter read less than 5 ohms?**

Y N

045

- Reconnect all cables.
 - Remove the jumper from JA3-B02 to JA3-B08 on the upper maple block.
- The B-A1 board is bad
---or---
The B-A2 board is bad.

046

- Remove the jumper from JA3-B02 to JA3-B08 on the upper maple block.
- The JA1 cable is bad.

047

- Remove the jumper from JA3.
 - Reconnect all cables.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

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EC 842375 PEC 839954

MAP 0572-13

048

- Set CB1 to the Off position (05-215).
- Remove the jumper from JA3.
- Reconnect JA3.
- Disconnect J22 (05-240).
- Set CB1 to the On position (05-215).
- Connect the meter to the J22 pins in table 8 on the cable.

Table 8 J22

| Supply Voltage | Low Limit (Vdc) | Measure at pins (+) to (-) | |
|----------------|-----------------|----------------------------|-----|
| +5 | +4.5 | D03 | D08 |
| +12 | +11 | D07 | D08 |
| -5 | -4.5 | D06 | D08 |

Does every level read above low limit (Vdc) in table 8?

Y N

049

- Set CB1 to the Off position (05-215).
 - Install a good fuse for any fuse that is bad (F7, F8 or F9).
 - Reconnect all cables.
- The JA3 cable from JA3 to J22 is bad.

050

- Set CB1 to the Off position (05-215).
- Jumper J22-D02 to J22-D08 on the cable.
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

051

- Set CB1 to the Off position (05-215).
 - Install a good fuse for any fuse that is bad (F7, F8 or F9).
 - Remove the jumper.
 - Reconnect all cables.
- The JA3 cable from JA3 to J22 is bad.

A
A
1
4

**Bad Fuses or Missing CS Level
5360 Systems Unit**

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052

- Set CB1 to the Off position (05-215).
- Remove the jumper on J22.
- Reconnect J22.
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

053

- Disconnect J32 (05-240).
- Install a jumper from J32-12 to J32-13 .
- Press and hold the Power Status key.

Is the CS light on?

Y N

054

- Set CB1 to the Off position (05-215).
- Remove the jumper from J32-12 to J32-13.
- Install a good fuse for any fuse that is bad (F7, F8 or F9).
- Reconnect all cables.

The base power assembly is bad.

055

- Remove the jumper from J32-12 to J32-13.
- Set CB1 to the Off position (05-215).
- Install a good fuse for any fuse that is bad (F7, F8 or F9).
- Reconnect all cables.

The jumper assembly J32 is bad.

056

- Set CB1 to the Off position (05-215).
- Reconnect J43.
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

A A
B C

MAP 0572-15

A A
B C

057

- Set CB1 to the Off position (05-215).
- Install a good fuse for any fuse that is bad (F7, F8 or F9).
- Reconnect all cables.

The base 1.7-volt regulator is bad.

058

Is JA2 cable present (05-220)?

Y N

059

Go to Page 16, Step 066, Entry Point E.

060

- Set CB1 to the Off position (05-215).
- Reconnect JA2.
- Disconnect J54 (05-250).
- Disconnect J67 (05-255).
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

061

- Set CB1 to the Off position (05-215).
- Install a good fuse for any fuse that is bad (F7, F8 or F9).
- Reconnect all cables.

The JA2 cable from JA2 to J54 and J67 is bad.

062

- Set CB1 to the Off position (05-215).
- Reconnect J54.
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

063

- Set CB1 to the Off position (05-215).
- Reconnect all cables.

The A2 power assembly is bad.

1
6
A
D

30Jun86 PN 4177341

EC 842375 PEC 839954

MAP 0572-15

A
D
1
5

**Bad Fuses or Missing CS Level
5360 Systems Unit**

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064

- Set CB1 to the Off position (05-215).
- Reconnect J67.
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

065

- Set CB1 to the Off position (05-215).
 - Install a good fuse for any fuse that is bad (F7, F8 or F9).
 - Reconnect all cables.
- The A2 1.7-volt regulator is bad.

066

(Entry Point E)

Is cable JA4 present (05-220)?

Y N

067

Go to Page 17, Step 076, Entry Point F.

068

- Set CB1 to the Off position (05-215).
- Reconnect JA4.
- Disconnect J72 (05-261) (the cable retainer must be removed first).
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

069

- Set CB1 to the Off position (05-215).
 - Install a good fuse for any fuse that is bad (F7, F8 or F9).
 - Reconnect J72.
 - Reconnect JC2.
- The JA4 cable from JA4 to J72 is bad.

A
E

MAP 0572-16

A
E

070

- Set CB1 to the Off position (05-215).
- Reconnect J72.
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

071

- Set CB1 to the Off position (05-215).
- Install a good fuse for any fuse that is bad (F7, F8 or F9).
- Reconnect JC2.
- Disconnect J74 (05-261).
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

072

- Set CB1 to the Off position (05-215).
 - Install a good fuse for any fuse that is bad (F7, F8 or F9).
 - Reconnect J74.
- The A3 power assembly is bad.

073

- Set CB1 to the Off position (05-215).
- Reconnect J74.
- Disconnect J70 (05-262).
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

074

- Set CB1 to the Off position (05-215).
 - Install a good fuse for any fuse that is bad (F7, F8 or F9).
 - Reconnect J70.
- The cable from J74 to J70 is bad.

1 1
7 7
A A
F G

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EC 842375 PEC 839954

MAP 0572-16

A
F
1
6

**Bad Fuses or Missing CS Level
5360 Systems Unit**

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075

- Set CB1 to the Off position (05-215).
 - Reconnect J70.
- The A3 1.7-volt regulator/preload assembly is bad.

076

(Entry Point F)

Is cable JC2 present?

Y N

077

Go to Step 082, Entry Point G.

078

- Set CB1 to the Off position (05-215).
- Disconnect J89 (05-290).
- Reconnect JC2.
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

079

- Set CB1 to the Off position (05-215).
 - Install a good fuse for any fuse that is bad (F7, F8 or F9).
 - Reconnect J89.
- The JC2 cable is bad.

080

- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Set CB1 to the On position (05-215).
- Press and hold the Power Status key.

Is the CS light on?

Y N

081

- Set CB1 to the Off position (05-215).
 - Install a good fuse for any fuse that is bad (F7, F8 and F9).
- The Expansion power assembly is bad.

A
2

MAP 0572-17

082

(Entry Point G)

A loose connection was the only problem.

083

- Connect the meter from TP -5 (-) to TP GND (+) on the protect card (05-220).

Does the meter read more than 4.5 Vdc?

Y N

084

Go to Page 2, Step 002, Entry Point B.

085

- Connect the meter from TP +12 (+) to TP GND (-) on the protect card.

Does the meter read more than 10.8 Vdc?

Y N

086

Go to Page 2, Step 002, Entry Point B.

087

- Set CB1 to the Off position (05-215).
- Disconnect the protect card from the upper maple block only.

Go to Page 9, Step 020, Entry Point C.

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MAP 0572-17

A
H

Relay K1 Control Circuit

MAP 0574-1

5360 Systems Unit

PAGE 1 OF 6

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0512 | A | 1 | 001 |
| 0576 | A | 1 | 001 |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Remove and check fuse F6.
- Reinstall fuse F6 (with a good fuse if the fuse is bad).
- Remove the protect card (05-220).
- Set the meter to measure Vdc.
- Connect the meter from Y25 (+) to Y08 (-) on the lower maple block.
- Set CB1 to the On position (05-215).

MAP DESCRIPTION:

This MAP checks the contactor control line for an open before assuming the module is bad.

ENTRY CONDITIONS:

No signal to contactor.

START CONDITIONS:

- Before starting this MAP, perform the operations in MAP 0512.

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Control transformer
- Control power assembly
- Control AC capacitor
- Control cable
- Fuse F6
- Diode assembly
- DC fuse holder (F6)
- Control cable
- JC3 cable
- Relay K1
- Unit emergency switch

Does the meter read more than 21.6 Vdc?

Y N

6 2

A B

B
1

Relay K1 Control Circuit

MAP 0574-2

5360 Systems Unit

PAGE 2 OF 6

002

- Set CB1 to the Off position (05-215).
- Reinstall the protect card (05-220).
- Remove and check fuse F6.

Is fuse F6 bad?

Y N

003

- Disconnect J13 (05-215) (see note 1).
- Reinstall fuse F6.
- Set the meter to measure Vdc.
- Connect the meter J13-4 (+) to J13-12 (-) on the control cable.
- Set CB1 to the On position (05-215).

Note 1: Disconnecting J13 isolates the control power assembly ground from frame ground.

Does the meter read more than 21.6 Vdc?

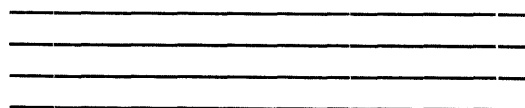
Y N

004

- Set CB1 to the Off position (05-215).
- Reconnect J13.

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.



- Remove the cover from the AC box.
 - Disconnect J12 (05-215).
 - Connect the meter J12-6 (+) to J12-3 (-) on the control power assembly.
- (Step 004 continues)

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 EC 826487 PEC 826380
 MAP 0574-2

4 4
C D

Relay K1 Control Circuit

MAP 0574-3

5360 Systems Unit

PAGE 3 OF 6

(Step 004 continued)

- Set CB1 to the On position (05-215).

Does the meter read more than 21.6 Vdc?

Y N

005

- Set CB1 to the Off position (05-215).
- Reconnect J12.
- Disconnect J11 (05-215).
- Set the meter to measure Vac.
- Connect the meter J11-6 to J11-4 on the control transformer.
- Set CB1 to the On position (05-215).

Does the meter read more than 21.6 Vac?

Y N

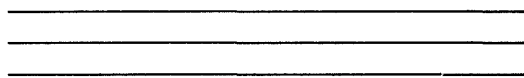
006

(Entry Point B)

- Set CB1 to the Off position (05-215).
- Use the following procedure to test the control AC capacitor (05-215):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

(Step 006 continues)

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

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MAP 0574-3

D E F
2 3 3

Relay K1 Control Circuit

5360 Systems Unit

PAGE 4 OF 6

(Step 006 continued)
Is the AC capacitor good (see note 3)?

Y N

007

- Reconnect the leads to the AC capacitor.
- The control AC capacitor is bad.

008

The control transformer is bad.

009

- Set CB1 to the Off position (05-215).
- Connect the meter J11-3 to J11-4 on the control transformer.
- Set CB1 to the On position (05-215).

Does the meter read more than 21.6 Vac?

Y N

010

Go to Page 3, Step 006, Entry Point B.

011

- Set CB1 to the Off position (05-215).
- Reconnect J11.

The control power assembly is bad.

012

- Set CB1 to the Off position (05-215).
- Reconnect J12.

The control cable is bad

---or---

The DC fuse holder (F6) is bad.

013

- Set CB1 to the Off position (05-215).
- Reconnect J13.
- Connect the meter from J13-3 (+) on the JC3 cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 21.6 Vdc?

Y N

G H

MAP 0574-4

C G H
2

014

The JC3 cable is bad

---or---

The Unit Emergency switch is bad (05-205).

015

- Connect the meter from J13-5 (+) on the control cable (05-215) to ground (-).

Does the meter read more than 20 Vdc?

Y N

016

Relay K1 is bad (05-215)

---or---

The control cable is bad (05-215).

017

The JC3 cable is bad (05-220)

---or---

The lower maple block is bad (05-220).

018

- Disconnect J13 (05-215).
- Install a good fuse for F6.
- Set the meter to measure ohms.
- Connect the meter from J13-4 on the control cable to ground.

Does the meter read more than 100 k-ohms?

Y N

019

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

(Step 019 continues)

15Feb84 PN 4177342

EC 826487 PEC 826380

5
J

MAP 0574-4

Relay K1 Control Circuit

5360 Systems Unit

PAGE 5 OF 6

(Step 019 continued)

-
-
- Remove the cover from the AC box.
 - Disconnect J12 (05-215).
 - Connect the meter from J13-4 to ground.

Does the meter read more than 100 k-ohms?

Y N

020

- Reconnect J12.
 - Reconnect J13.
- The control cable is bad
 ---or---
 Relay K1 is bad
 ---or---
 The DC fuse holder (F6) is bad.

021

- Reconnect J12.
 - Reconnect J13.
- The control power assembly is bad.

022

- Connect the meter from J13-3 on the control cable to ground.

Does the meter read more than 100 k-ohms?

Y N

023

- Reconnect J13.
- The control cable is bad
 ---or---
 Relay K1 is bad
 ---or---
 Relay K1 Diode Assembly is bad.

A K
1 5

Relay K1 Control Circuit

MAP 0574-6

5360 Systems Unit

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024

- Set the meter to measure Vdc.
- Connect the meter from J13-4 (+) to J13-9 (-) on the control cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 21.6 Vdc?

Y N

025

- Set CB1 to the Off position (05-215).
- Reconnect J13.

The control cable is bad

---or---

Relay K1 is bad.

026

- Set CB1 to the Off position (05-215).
- Reconnect J13.

The JC3 cable is bad

---or---

The Unit Emergency switch is bad.

027

- Set CB1 to the Off position (05-215).
- The diode assembly on relay K1 is bad.
- Install a new protect card (see note 3)

---or---

The protect card is bad (05-220) (see note 3).

Note 3: A bad diode assembly on relay K1 may have caused the protect card to go bad.

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EC 826487 PEC 826380

MAP 0574-6

No Response To Power Key

MAP 0576-1

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0500 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 1 | 002 | 0574 | A |

001

(Entry Point A)

- Set the meter to measure Vdc.
- Connect the meter TP K1 (+) to TP GND (-) on the protect card (05-220).

MAP DESCRIPTION:

This MAP isolates the cause of no response to the Power key.

ENTRY CONDITIONS:

CB1 is on.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Upper maple block
- Lower maple block
- Protect card
- Base power assembly
- Control power assembly
- Control cable
- JC3 cable
- B-A1 board
- B-A2 board
- JA1 cable
- JA3 cable

Does the meter read more than 21.6 Vdc?

Y N

002

Go To Map 0574, Entry Point A.

A
1

No Response To Power Key

MAP 0576-2

5360 Systems Unit

PAGE 2 OF 9

003

- Connect logic probe TP CLOCK 0 (+) and TP GND (-) (05-220) (see note 1).

Note 1: Connect to TP +5(+) and TP GND (-) on the protect card for probe power.

Up Light: 0n
Down Light: 0n

Are the lights correct?

Y N

004

- Set CB1 to the Off position (05-215).
- Disconnect logic probe.
- Remove protect card.
- Connect logic probe Y02 (+) to Y06 (-) on the lower maple block (see note 2).
- Set CB1 to the On position (05-215).

Note 2: Connect to Y03 (+) and Y08 (-) on the lower maple block for probe power.

Up Light: 0n
Down Light: 0n

Are the lights correct?

Y N

005

- Set CB1 to the Off position (05-215).
- Disconnect logic probe.

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

- Remove AC box cover.
(Step 005 continues)

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EC 842350 PEC 826487
MAP 0576-2

4 4
B C

No Response To Power Key

5360 Systems Unit

PAGE 3 OF 9

(Step 005 continued)

- Connect the meter from J12-1 (+) to J12-3 (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

006

- Reinstall protect card.
- The control cable from F8 to J12-1 is bad.

007

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Disconnect J12 (05-215).
- Connect the meter from J12-5 on the cable to Y02 on the lower maple block.

Does the meter read less than 5 ohms?

Y N

008

- Disconnect J13 (05-215).
- Connect the meter from J13-8 on the control cable (05-215) to J12-5 on the cable.

Does the meter read less than 5 ohms?

Y N

009

- Reconnect J12.
 - Reconnect J13.
 - Reinstall the protect card.
- The control cable is bad (pin J12-5 to pin J13-8).

010

- Reconnect J12.
 - Reconnect J13.
 - Reinstall the protect card.
- The JC3 cable is bad
---or---
The lower maple block is bad.

D

MAP 0576-3

011

- Connect the meter from J12-5 on the cable to ground.

Does the meter read more than 100 k-ohms?

Y N

012

- Disconnect J13 (05-215).
- Connect the meter from J12-5 on the cable to ground.

Does the meter read less than 100 k-ohms?

Y N

013

- Connect the meter from J12-5 to J12-4 on the cable.

Does the meter read more than 100 k-ohms?

Y N

014

The control cable is bad.

015

- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter J12-5 (+) to J12-4 (-) on the control power assembly.

Does the meter read between 2.0 Vdc and 3.0 Vdc?

Y N

016

The control power assembly is bad.

017

- Reconnect J12.
 - Reconnect J13.
 - Reinstall the protect card.
- The lower maple block is bad (pin Y02, JC3-D02)
---or---
The JC3 cable is bad (pin J13-8 to pin JC3-D02).

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MAP 0576-3

D

4 4
E F

B 2
C 2
E 3
F 3

No Response To Power Key

5360 Systems Unit

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018

- Reconnect J12.
 - Reconnect J13.
 - Reinstall the protect card.
- The control cable from J12 to J13 is bad (J12-5 to J13-8).

019

- Reconnect J12.
 - Reinstall the protect card.
- The control power assembly is bad.

020

The protect card is bad (05-220).

021

- Connect the logic probe to TP clock 1 (+) and TP GND (-).

Up Light: On

Down Light: On

Are the lights correct?

Y N

022

- Set the meter to measure Vdc.
- Connect the meter from J22-D11 (+) to ground (-).

Does the meter read less than 0.5 Vdc?

Y N

023

- Set CB1 to the Off position (05-215).
- Disconnect J22 (05-240).
- Connect the meter from J22-B03 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

6 5
G H J K

J K

MAP 0576-4

024

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Disconnect JA3 (05-220).
- Set CB1 to the On position (05-215).
- Connect the meter from JA3-D03 (+) to JA3-B08 (-) on the upper maple block.

Does the meter read more than 4.5 Vdc?

Y N

025

- Set CB1 to the Off position (05-215).
- Reconnect JA3.

The protect card is bad (05-220)

---or---

The upper maple block is bad.

026

- Set CB1 to the Off position (05-215).
- Reconnect JA3.

The JA3 cable from JA3 to J22 is bad.

027

- Connect the meter from J22-D03 (+) on the cable to ground (-).

Does the meter read more than 4.5 Vdc?

Y N

028

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Disconnect JA3 (05-220).
- Set CB1 to the On position (05-215).
- Connect the meter from JA3-B03 (+) to JA3-B08 (-) on the upper maple block.

Does the meter read more than 4.5 Vdc?

Y N

029

- Set CB1 to the Off position (05-215).
- Reconnect JA3.

The protect card is bad (05-220)

---or---

The upper maple block is bad.

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L M

04NOV85 PN 4177343

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MAP 0576-4

H L M
4 4 4

No Response To Power Key

MAP 0576-5

5360 Systems Unit

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030

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The JA3 cable from JA3 to J22 is bad.

031

Base power assembly is bad.

032

- Set CB1 to the Off position (05-215).
- Disconnect J22 (05-240).
- Connect the meter from J22-D11 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

033

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Disconnect JA3 (05-220).
- Connect the meter from JA3-B11 (+) on the upper maple block to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

034

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

035

The JA3 cable from JA3 to J22 is bad.

036

The protect card is bad (05-220).

04NOV85 PN 4177343

EC 842350 PEC 826487

MAP 0576-5

G
4

No Response To Power Key

MAP 0576-6

5360 Systems Unit

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037

- Set CB1 to the Off position (05-215).
- Disconnect JA4 (05-220).
- Connect the meter from JA4-D13 (+) on the upper maple block to ground (-).
- Set CB1 to the On position (05-215).

S13 is a protect card test for all base UV.

Does the meter read less than 2.5 Vdc?

Y N

038

- Set CB1 to the Off position (05-215).
- Reconnect JA4.
- Disconnect J22 (05-240).
- Set CB1 to the On position (05-215).
- Connect the meter to the J22 pins on the cable as follows:

- D04(+) to D08(-)
- D05(+) to D08(-)
- D06(-) to D08(+)
- D09(+) to D08(-)
- D10(+) to D08(-)
- B12(+) to D08(-)

Does the meter read more than 4.5 Vdc on each?

Y N

039

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Disconnect JA3 (05-220).
- Set CB1 to the On position (05-215).
- Connect the meter to the JA3 pins on the upper maple block as follows:

- B04(+) to B08 (-)
- B05(+) to B08 (-)
- D06(-) to D08 (+)
- B09(+) to B08 (-)
- B10(+) to B08 (-)
- D12(+) to B08 (-)

Does the meter read more than 4.5 Vdc on each?

Y N

7 7 7 7
N P Q R

04NOV85 PN 4177343
EC 842350 PEC 826487
MAP 0576-6

P Q R
6 6 6

No Response To Power Key

5360 Systems Unit

PAGE 7 OF 9

040

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

041

- Set CB1 to the Off position (05-215).
 - Reconnect JA3.
- The JA3 cable from JA3 to J22 is bad.

042

- Set CB1 to the Off position (05-215).
- Reconnect J22.
- Set CB1 to the On position (05-215).
- Connect the meter to the J22 pins as follows:
D04(+) to D08(-)
D05(+) to D08(-)
D06(-) to D08(+)
D09(+) to D08(-)
D10(+) to D08(-)
D12(+) to D08(-)

Does the meter read less than 0.7 Vdc on each pin?

Y N

043

Base power assembly is bad.

044

The protect card is bad (05-220).

N
6

MAP 0576-7

045

- Set CB1 to the Off position (05-215).
- Reconnect JA4.
- Disconnect JA1 (05-220).
- Install a jumper from JA1-B03 on the cable to JA1-B03 on the upper maple block.
- Set CB1 to the On position (05-215).
- Connect the meter from JA1-B05 (+) to JA1-B08 (-) on the cable.

Does the meter read more than 2.5 Vdc?

Y N

046

- Set CB1 to the Off position (05-215).
 - Remove jumper from JA1.
 - Reconnect JA1.
- The JA1 cable is bad
---or---
The B-A1 board is bad
---or---
The B-A2 board is bad.

047

- Connect the meter from JA1-B05 (+) to JA1-B08 (-) on the cable.
- Press and hold the Power key.

Does the meter read less than 0.7 Vdc?

Y N

048

- Set CB1 to the Off position (05-215).
- Remove jumper from JA1.
- Reconnect JA1.
- Disconnect B-A1J4D (10-215).
- Set CB1 to the On position (05-215).
- Jumper B-A1J4D-D03 on the board to B-A1J4D-D03 on the cable.
- Connect the meter from B-A1J4D-B05 (+) to B-A1J4D-D08 (-) on the board.
- Press and hold the Power key.

Does the meter read less than 0.7 Vdc?

Y N

8 8 8
S T U

04NOV85 PN 4177343
EC 842350 PEC 826487
MAP 0576-7

S T U
7 7 7

No Response To Power Key

5360 Systems Unit

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049

- Set CB1 to the Off position (05-215).
- Disconnect the jumper from B-A1J4D.
- Reconnect B-A1J4D.

The B-A1 board is bad

---or---

The B-A2 board is bad.

050

- Set CB1 to the Off position (05-215).
- The JA1 cable from JA1 to B-A1J4D is bad.

051

- Connect the meter from JA1-D09 (+) to JA1-B08 (-) on the upper maple block.

Does the meter read more than 4.5 Vdc?

Y N

052

- Set CB1 to the Off position (05-215).
- Remove the jumper from JA1.
- Reconnect JA1.

The protect card is bad (05-220)

---or---

The upper maple block is bad.

---or---

The JA1 cable is bad.

053

- Connect the meter from JA1-D09 (+) to JA1-B08 (-) on the cable.

- Press and hold the Power key.

Does the meter read less than 2.5 Vdc?

Y N

V W

MAP 0576-8

054

- Set CB1 to the Off position (05-215).
- Remove the jumper from JA1.
- Reconnect JA1.
- Disconnect B-A1J4D.
- Jumper B-A1J4D-D03 on the cable to B-A1J4D on the board.
- Connect the meter from B-A1J4D-B09 (+) to B-A1J4D-D08 (-) on the board.
- Set CB1 to the On position (05-215).

Does the meter read less than 2.5 Vdc?

Y N

055

- Set CB1 to the Off position (05-215).
- Remove the jumper from B-A1J4D.
- Reconnect B-A1J4D.

The B-A1 board is bad

---or---

The B-A2 board is bad.

056

- Set CB1 to the Off position (05-215).
 - Remove the jumper from B-A1J4D.
 - Reconnect B-A1J4D.
- The JA1 cable from JA1 to B-A1J4D is bad.

057

- Set CB1 to the Off position (05-215).
- Connect the meter from JA1-B05 (+) on the upper maple block to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 2.4 Vdc?

Y N

058

- Remove the jumper from JA1.
- Reconnect JA1.

The protect card is bad (05-220)

---or---

The upper maple block is bad.

V W

9
X

04NOV85 PN 4177343

EC 842350 PEC 826487

MAP 0576-8

X
8

No Response To Power Key

MAP 0576-9

5360 Systems Unit

PAGE 9 OF 9

059

- Set CB1 to the Off position (05-215).
- Remove the jumper.
- Reconnect JA1.
- Disconnect B-A1J4D (10-215).
- Connect the meter from B-A1J4D-D05 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

060

The JA1 cable is bad.

061

The B-A1 board is bad

---or---

The B-A2 board is bad

---or---

The protect card is bad (05-220).

04NOV85 PN 4177343

EC 842350 PEC 826487

MAP 0576-9

B
I

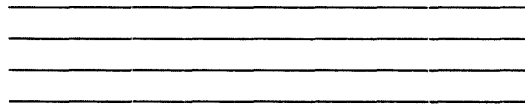
Emergency Switch

5360 Systems Unit

PAGE 2 OF 3

002

CAUTION



If the machine does not power off when you use the Power key, then it may not power off when an error occurs, and the machine may be without protection. The power off problem must be repaired first so that protection is verified.

- Press the Power key (power on).
- Select mode 6.

Is mode 6 displayed?

Y N

003

Go To Map 1701, Entry Point D.

004

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

Does the Power Check light flash?

Y N

005

- Set CB1 to the Off position (05-215).
- Disconnect JA1 (05-220).
- Set the meter to measure Vdc.
- Set CB1 to the On position (05-215).
- Connect the meter from JA1-B06 (+) on the upper maple block to ground.

Does the meter read more than 4.5 Vdc?

Y N

C D E

C D E

MAP 0577-2

006

- Set CB1 to the Off position (05-215).
 - Reconnect JA1.
- The protect card is bad (05-220)
---or---
The upper maple block is bad.

007

- Set CB1 to the Off position (05-215).
- Reconnect JA1.
- Connect the meter from JA1-B06 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Press and hold the Power key.

Does the meter read less than 0.7 Vdc?

Y N

008

Go To Map 1701, Entry Point D.

009

Go to Page 3, Step 014, Entry Point B.

010

- Wait 15 seconds.

With the machine power off, the Power Check or the Temperature Check light may be on, but all the other lights on the control panel should be off and the fans and disks should not be turning.

Does the machine power off?

Y N

011

Go to Page 3, Step 014, Entry Point B.

012

A loose connection was the only problem.

15Feb84

PN 4177344

EC 826487

PEC 826380

MAP 0577-2

A
1

Emergency Switch

5360 Systems Unit

PAGE 3 OF 3

013

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Remove the protect card.
- Set CB1 to the On position (05-215).

Does the machine power on?

Y N

014

(Entry Point B)

The protect card is bad (05-220)

---or---

JC4 jumper card is bad.

---or---

The lower maple block is bad at JC4.

015

- Set CB1 to the Off position (05-215).
- Reinstall the protect card (05-220).
- Disconnect JC3 (05-220).
- Set CB1 to the On position (05-215).

Does the machine power on?

Y N

016

- Set CB1 to the Off position (05-215).
- Reconnect JC3.

The lower maple block is bad.

017

- Set CB1 to the Off position (05-215).
- Reconnect JC3.
- Disconnect J13 (05-215).
- Set CB1 to the On position (05-215).

Does the machine power on?

Y N

F G

F G

MAP 0577-3

018

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from K1-1 to ground.

Does the meter read more than 100 k-ohms?

Y N

019

The control cable is bad

---or---

The diode assembly is bad

---or---

Relay K1 is bad.

020

The JC3 cable is bad.

021

Relay K1 is bad.

15Feb84 PN 4177344

EC 826487 PEC 826380

MAP 0577-3

A B
1 1

**Temperature Check
5360 Systems Unit**

PAGE 2 OF 4

002

- Set CB1 to the Off position (05-215).
- Reconnect JA3.
- Disconnect JA1 (05-220).
- Set the meter to measure ohms.
- Connect the meter from JA1-D11 (+) on the cable to ground (-).

Does the meter read more than 10 ohms?

Y N

003

- Reconnect JA1.
- Disconnect B-A1J4D (10-215).
- Connect the meter from J4D-B11 (+) on the control panel to ground (-).

Does the meter read more than 10 ohms?

Y N

004

The B-A1 board is bad
 ---or---
 The B-A2 board is bad.

005

The JA1 cable from JA1 to B-A1J4D is bad.

006

- Reconnect JA1 cable.
- The protect card is bad (05-220).

007

- Set CB1 to the Off position (05-215).
- Reconnect JA3.
- Disconnect JC3 (05-220).
- Connect the meter from JC3-D09 (+) on the cable to ground (-).

Does the meter read less than 10 ohms?

Y N

4
C D

D

MAP 0582-2

008

CAUTION

Thermal switches may be hot.

- When the power thermal switch and the gate thermal switch are cool to touch, reconnect JC3.
- Set CB1 to the On position (05-215).

Is the Temperature Check light off?

Y N

009

The power thermal switch is bad
 ---or---
 The logic gate thermal switch is bad
 ---or---
 The JC3 cable is bad.

010

Listen for the power fan and the gate fan to start while you:

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

Did the gate fan start?

Y N

011

Go To Map 0523, Entry Point A.

012

Did the power fan start?

Y N

013

Go To Map 0522, Entry Point A.

3
E

15Feb84 PN 4177345

EC 826487 PEC 826380

MAP 0582-2

E
2

Temperature Check

MAP 0582-3

5360 Systems Unit

PAGE 3 OF 4

014

- Press the Power key (power on).
- Wait a few minutes then:
 - Check the Temperature Check light (control panel).

Is the light on?

Y N

015

Does the machine power on?

Y N

016

Go To Map 0500, Entry Point B.

017

The heat source was removed.

018

- Jumper across the power thermal switch (05-220).
- Press the Power key (power on).
- Wait a few minutes then:
 - Check the Temperature Check light (control panel).

Is the light on?

Y N

019

- Remove the jumper.

Is the Temperature Check light on?

Y N

020

The heat source was removed.

021

The power thermal switch is bad.

022

- Remove the jumper.
- Check for a hot card
- or---
- Check for air flow in the gate.

The gate thermal switch is activated.

15Feb84 PN 4177345

EC 826487 PEC 826380

MAP 0582-3

C
2

Temperature Check

MAP 0582-4

5360 Systems Unit

PAGE 4 OF 4

023

- Reconnect JC3.

The protect card is bad (05-220)

---or---

The lower maple block is bad at JC3.

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PN 4177345

EC 826487

PEC 826380

MAP 0582-4

Lamp Circuit MAP
5360 Systems Unit

MAP 0584-1

PAGE 1 OF 6

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0101 | A | 1 | 001 |
| 0500 | B | 1 | 001 |
| 0503 | B | 1 | 001 |
| 0511 | A | 1 | 001 |
| 3011 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 1 | 002 | 0572 | B |

001

(Entry Point A)

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

(Entry Point B)

- Set the meter to measure Vdc.
- Connect the meter from TP +5(+) to ground (-) on the protect card (05-220).

MAP DESCRIPTION:

This MAP verifies lamp circuits.

ENTRY CONDITIONS:

Lamp does not light with lamp test or lamp is on all the time.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- Upper maple block
- JA1 cable
- B-A1 board
- B-A2 board
- Cable from B-A1J4A to A-A1A5.
- JC4 jumper assembly
- A-A1B4 card
- A-A1 board

Does the meter read more than 4.5 Vdc?

Y N

002

Go To Map 0572, Entry Point B.

A
1

Lamp Circuit MAP

5360 Systems Unit

PAGE 2 OF 6

003

- Set CB1 to the Off position (05-215).
- Disconnect JA1 (05-220).
- Set the meter to measure ohms.
- Connect the meter from JA1-B04 on the cable to ground.

Does the meter read more than 10 ohms?

Y N

004

- Reconnect JA1.
- Disconnect B-A1J4D (10-215).
- Connect the meter from J4D-D04 to J4D-D08 on the control panel.

Does the meter read more than 10 ohms?

Y N

005

- Disconnect B-A1J4A.
- Connect the meter from B-A1J4AD10 to B-A1J4AD08 on the cable.

Does the meter read more than 10 ohms?

Y N

006

Is there a card in the A-A1L2 position?

Y N

007

- Reconnect B-A1J4A.
 - Reconnect B-A1J4D.
- The cable from B-A1J4A to A-A1A5 is bad
 ---or---
 The card A-A1M2 is bad
 ---or---
 The A-A1 board is bad.

B C D E

MAP 0584-2

008

- Reconnect B-A1J4A.
 - Reconnect B-A1J4D.
- The cable from B-A1J4A to A-A1A5 is bad
 ---or---
 The card A-A1B4 is bad
 ---or---
 The A-A1 board is bad.

009

- Reconnect B-A1J4A.
 - Reconnect B-A1J4D.
- The B-A1 board is bad
 ---or---
 The B-A2 board is bad.

010

- Reconnect B-A1J4D.
- The JA1 cable from JA1 to B-A1J4D is bad.

011

Does the meter read more than 10 k-ohms?

Y N

012

- Disconnect B-A1J4D (10-215).
- Connect the meter from JA1-B04 on the cable to ground.

Does the meter read more than 10 k-ohms?

Y N

013

The JA1 cable is bad.

014

The B-A1 board is bad
 ---or---
 The B-A2 board is bad.

015

- Press and hold the Lamp Test key.
- Does the meter read less than 10 k-ohms?**

Y N

B C D E

3 3
F G

30JUN86 PN 4177346

EC 842375 PEC 826487

MAP 0584-2

F G
2 2

Lamp Circuit MAP
5360 Systems Unit

MAP 0584-3

PAGE 3 OF 6

016

- Reconnect JA1.
- Disconnect B-A1J4D (10-215).
- Connect the meter from J4D-D04 (+) to J4D-D08 (-) on the control panel.
- Press and hold the Lamp Test key.

Does the meter read less than 10 k-ohms?

Y N

017

- Reconnect B-A1J4D.
- The B-A1 board is bad
---or---
The B-A2 board is bad.

018

- Reconnect B-A1J4D.
- The JA1 cable from JA1 to B-A1J4D is bad.

019

- Set the meter to measure Vdc.
- Connect the meter from JA1-B04 (+) on the upper maple block to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 2.4 Vdc?

Y N

020

- The protect card is bad (05-220)
---or---
The upper maple block is bad.

021

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from JA1-D12 (+) to JA1-B08 (-) on the cable.

Does the meter read more than 1 k-ohms?

Y N

4 4
H J

30JUN86 PN 4177346
EC 842375 PEC 826487
MAP 0584-3

H J
3 3

Lamp Circuit MAP
5360 Systems Unit
PAGE 4 OF 6

MAP 0584-4

022

- Disconnect B-A1J4D (10-215).
- Connect the meter from JA1-B12 (+) to JA1-B08 (-) on the cable.

Does the meter read more than 10 k-ohms?

Y N

023

The JA1 cable from JA1 to B-A1J4D is bad.

024

The B-A1 board is bad

---or---

The B-A2 board is bad.

025

- Disconnect JA1, if not disconnected.
- Jumper JA1-B03 on the cable to JA1-B03 on the upper maple block (+5 Vdc control power assembly).
- Set CB1 to the On position (05-215).

Table 1

Lamp Circuit Tables

| Lamp | Source Pin |
|-------------|------------|
| CS | JA1-D02 |
| UV | JA1-D03 |
| OC | JA1-D04 |
| OV/CU | JA1-D05 |
| 8 | JA1-D06 |
| 4 | JA1-D07 |
| 2 | JA1-D08 |
| 1 | JA1-D09 |
| Power Check | JA1-D10 |
| Temperature | JA1-D11 |

Does any lamp in table 1 light?

Y N

Vertical line for response

6 5
K L

L
4

Lamp Circuit MAP

MAP 0584-5

5360 Systems Unit

PAGE 5 OF 6

026

With the JA1-B03 jumper still in place, one at a time:
- Jumper each lamp source pin on the cable to TP GND (on protect card) (05-220) and observe the lamp (see table 1).

Table 1

Lamp Circuit Tables

| Lamp | Source Pin |
|-------------|------------|
| CS | JA1-D02 |
| UV | JA1-D03 |
| OC | JA1-D04 |
| OV/CU | JA1-D05 |
| 8 | JA1-D06 |
| 4 | JA1-D07 |
| 2 | JA1-D08 |
| 1 | JA1-D09 |
| Power Check | JA1-D10 |
| Temperature | JA1-D11 |

Does each lamp light?

Y N

027

- Set CB1 to the Off position (05-215).
- Remove the jumper from JA1-B03.
- Reconnect JA1.

The JA1 cable is bad

---or---

The B-A1 board is bad

---or---

The B-A2 board is bad.

028

- Set CB1 to the Off position (05-215).
- Remove the jumper from JA1-B03.
- Reconnect JA1.

The protect card is bad (05-220)

---or---

The upper maple block is bad

---or---

The JC4 jumper assembly is bad.

30JUN86

PN 4177346

EC 842375

PEC 826487

MAP 0584-5

K
4

Lamp Circuit MAP

MAP 0584-6

5360 Systems Unit

PAGE 6 OF 6

029

- Set CB1 to the Off position (05-215).
- Remove the jumper from JA1-B03.
- Reconnect JA1.

The JA1 cable from JA1 to B-A1J4D is bad

---or---

The B-A1 board is bad

---or---

The B-A2 board is bad.

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EC 842375 PEC 826487

MAP 0584-6

Dead Machine Entry

MAP 0588-1

5360 Systems Unit

PAGE 1 OF 10

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0502 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 4 | 019 | 0500 | B |
| 3 | 013 | 0572 | B |
| 4 | 015 | 0572 | B |
| 10 | 052 | 0572 | B |
| 10 | 064 | 0577 | A |
| 3 | 006 | 0589 | A |
| 3 | 008 | 0589 | A |
| 3 | 011 | 0589 | A |
| 4 | 018 | 0589 | A |
| 5 | 027 | 0589 | A |
| 10 | 060 | 1701 | A |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Remove and check fuses F1 and F8.
- Reinstall fuses F1 and F8 (with good fuses, when bad).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the On position (05-215).

MAP DESCRIPTION:

This MAP checks the AC and DC fuses, CB1 and other causes of a dead machine.

ENTRY CONDITIONS:

Dead machine. The machine does not power on and the machine lights are not on.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Upper maple block
- Lower maple block
- Control transformer
- Control AC capacitor
- Control power assembly
- DC fuse holder (F8)
- Control cable
- Protect card
- JC3 cable
- JA1 cable
- Fuse F1
- Fuse F8

(Step 001 continues)

(Step 001 continues)

**Dead Machine Entry
5360 Systems Unit**

MAP 0588-2

PAGE 2 OF 10

(Step 001 continued)

(Step 001 continued)

Does the machine remain powered off?

Y N

002

- Set CB1 to the Off position (05-215) (note 1).
- Disconnect the line cord from the power outlet.

Note 1: CB1 may have been tripped or set to the Off position because of an additional problem.

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

- Remove the cover from the AC box (05-215).
The arc suppressors are bad
---or---
Relay K1 is bad.

003

- Press and hold the Lamp Test key.

Are any control panel lights on?

Y N

1
0 3
A B

04Dec84 PN 2597086
EC 839954 PEC 826487
MAP 0588-2

B
2

**Dead Machine Entry
5360 Systems Unit**

PAGE 3 OF 10

004

- Set CB1 to the Off position (05-215).
- Disconnect the line cord from the power outlet.
- Set the meter to measure Vac (highest range).
- Connect the meter to the power outlet.

Does the meter read from 200 to 250 Vac for each phase to neutral?

Y N

005

- Inform the customer to have the outlet reactivated.
- Set the meter to measure ohms.
- Connect the meter to the line cord from each line contact to the ground contact, and between the line contacts (three resistance measurements).

Does the meter read more than 100 k-ohms for each contact?

Y N

006

Go To Map 0589, Entry Point A.

007

- Remove fuse F1 from the AC box.
- Set CB1 to the On position (05-215).
- Connect the meter to the line cord from each line contact to the ground contact, and between the line contacts (three resistance measurements).

Does the meter read more than 100 k-ohms for each contact?

Y N

008

Go To Map 0589, Entry Point A.

009

Was fuse F1 bad?

Y N

4 4
C D E

E

MAP 0588-3

010

- Reinstall fuse F1.

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

- Remove the cover from the AC box (05-215).
- Connect the meter from K1-1 (05-215) to ground (05-205).
- Connect the meter from K1-2 (05-215) to ground (05-205).
- Connect the meter from K1-3 (05-215) to ground (05-205).

Does the meter read more than 100 ohms on each?

Y N

011

Go To Map 0589, Entry Point A.

012

- Set CB1 to the Off position (05-215).
- Reconnect the line cord when the customer's power is corrected.
- Set CB1 to the On position (05-215).
- Press and hold the Lamp Test key.

Are any control panel lights on?

Y N

013

Go To Map 0572, Entry Point B.

4
F

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MAP 0588-3

C D F
3 3 3

Dead Machine Entry

5360 Systems Unit

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014

(Entry Point B)

- Press and hold the Power Status key.

Is the CS light on?

Y N

015

Go To Map 0572, Entry Point B.

016

- Set the Unit Emergency switch to the Power Enable position (05-205).

- Press the Power key (power on).

Does the machine power on?

Y N

017

- Press and hold the Lamp Test key.

Are any control panel lights on?

Y N

018

Go To Map 0589, Entry Point A.

019

Go To Map 0500, Entry Point B.

020

CB1, the fuses or the cables fixed the problem.

021

- Set CB1 to the Off position (05-215).

- Install a good fuse for F1.

- Reconnect the line cord.

The control transformer is bad.

022

- Reconnect the line cord.

- Set CB1 to the On position (05-215).

- Press and hold the Lamp Test key.

Are any control panel lights on?

Y N

1
O G H

H

MAP 0588-4

023

- Set the meter to measure Vdc.

- Connect the meter from TP +5 (+) to TP GND (-) on the protect card (05-220).

Does the meter read more than 4.5 Vdc?

Y N

024

- Set CB1 to the Off position (05-215).

- Remove and check fuse F8.

Is fuse F8 bad?

Y N

025

- Reinstall fuse F8.

- Remove and check fuse F1.

Is fuse F1 bad?

Y N

026

- Reinstall fuse F1.

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

- Remove the AC box cover.

- Disconnect J01 (05-215).

- Set the meter to measure Vac (highest range).

- Connect the meter from J01-1 to J01-3 on the AC cable.

- Set CB1 to the On position (05-215).

(Step 026 continues)

1
O J K L

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MAP 0588-4

Dead Machine Entry

MAP 0588-5

5360 Systems Unit

PAGE 5 OF 10

(Step 026 continued)

Does the meter read between 200 to 250 Vac?

Y N

027

- Set CB1 to the Off position (05-215).
- Go To Map 0589, Entry Point A.**

028

- Set CB1 to the Off position (05-215).
- Reconnect J01.
- Disconnect J12 (05-215) (see note 2).
- Set the meter to measure Vdc.
- Set CB1 to the On position (05-215).
- Connect the meter from J12-7 (+) to J12-3 (-) on the control assembly.

Note 2: With J12 or J13 disconnected, the control supply DC voltage outputs are isolated from frame ground.

Does the meter read more than 5.0 Vdc?

Y N

029

- Set CB1 to the Off position (05-215).
- Disconnect J11 (05-215).
- Set the meter to measure Vac.
- Connect the meter from J11-1 to J11-5 on the control transformer cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vac?

Y N

030

- Set CB1 to the Off position (05-215).
- Use the following procedure to test the control AC capacitor (05-215):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.

(Step 030 continues)

(Step 030 continues)

7 6
M N

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MAP 0588-5

**Dead Machine Entry
5360 Systems Unit**

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(Step 030 continued)

(Step 030 continued)

-
- Remove the insulators from the AC capacitor.
 - Short circuit the AC capacitor terminals together before touching the terminals.
 - Disconnect the leads from the AC capacitor terminals.
 - Set the meter to measure ohms (highest range).
 - Connect the meter across the AC capacitor terminals.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

Is the AC capacitor good (see note 3)?

Y N

031

- Reconnect J11 and J12.
- The control AC capacitor is bad.

032

- Reconnect the leads to the AC capacitor.
 - Reconnect J11 and J12.
- The control transformer is bad.

033

- Connect the meter from J11-2 to J11-5 on the control transformer cable.

Does the meter read more than 4.5 Vac?

Y N

034

- Set CB1 to the Off position (05-215).
 - Reconnect J11.
 - Reconnect J12.
- The control transformer is bad.

035

- Set CB1 to the Off position (05-215).
 - Reconnect J11 and J12.
- The control power assembly is bad.

Dead Machine Entry

5360 Systems Unit

036

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from J12-7 on the control power assembly board to ground.

Does the meter read more than 10 k-ohms?

Y N

037

- Disconnect J11 (05-215).
- Connect the meter from J11-1 on the board to ground.

Does the meter read more than 10 k-ohms?

Y N

038

- Reconnect J11.
 - Reconnect J12.
- The control power assembly is bad.

039

- Reconnect J11.
 - Reconnect J12.
- The control transformer is bad.

040

- Reconnect J12.
- Disconnect J13 (05-215) (see note 2).
- Set the meter to measure Vdc.
- Connect the meter from J13-6 (+) to J13-7 (-) on the cable from the control power assembly.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

041

- Set CB1 to the Off position (05-215).
 - Reconnect J13.
- The control cable from J12 to J13 is bad
 ---or---
 The DC fuse holder for F8 is bad.

Note 2: With J12 or J13 disconnected, the control supply DC voltage outputs are isolated from frame ground.

042

- Set CB1 to the Off position (05-215).
- Reconnect J13.
- Disconnect JC3 (05-220).
- Connect the meter from JC3-D03 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

043

- Set CB1 to the Off position (05-215).
 - Reconnect JC3.
- The JC3 cable from J13 to JC3 is bad.

044

- Set CB1 to the Off position (05-215).
- Reconnect JC3.
- Remove the protect card.
- Connect the meter from Y03 (+) to ground (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

045

- Set CB1 to the Off position (05-215).
 - Reinstall the protect card
- The lower maple block is bad.

046

- Set CB1 to the Off position (05-215).
- The protect card is bad (05-220).

L
4

Dead Machine Entry

MAP 0588-9

5360 Systems Unit

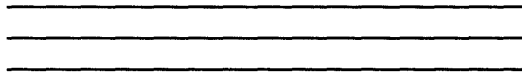
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047

- Install a good fuse for fuse F1.
- Use the following procedure to test the control AC capacitor (05-215):

 DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

Is the AC capacitor good (see note 3)?

Y N

048

The control AC capacitor is bad.

049

- Reconnect the leads to the AC capacitor.
- Disconnect J11 (05-215).
- Set the meter to measure Vac.
- Connect the meter from J11-4 to J11-6 on the control transformer cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vac?

Y N

1 1
Q R

1 1
Q R

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 MAP 0588-9

J K Q R
4 4 9 9

Dead Machine Entry

5360 Systems Unit

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050

- Set CB1 to the Off position (05-215).
- Reconnect J11.

The control transformer is bad.

051

- Set CB1 to the Off position (05-215).
- Reconnect J11.

The control power assembly is bad.

052

- Install a good fuse for fuse F8.

Go To Map 0572, Entry Point B.

053

- Set CB1 to the Off position (05-215).
- Disconnect JA1 (05-220).
- Connect the meter from JA1-B03 (+) to JA1-B08 (-) on the upper maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

054

- Set CB1 to the Off position (05-215).
- Reconnect JA1.
- Remove the protect card.
- Set the meter to measure ohms.
- Connect the meter from Y03 to D03 on the protect card.

Does the meter read less than 1 ohm?

Y N

055

The protect card is bad (05-220).

056

- Reinstall the protect card.
- The upper maple block is bad.

A G S
2 4

MAP 0588-10

057

- Set CB1 to the Off position (05-215).
- Reconnect JA1.
- Disconnect B-A1J4D from the control panel.
- Connect the meter from B-A1J4D-D03 (+) to B-A1J4D-D08 (-) on the cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

058

The JA1 cable from JA1 to B-A1J4D is bad.

059

- Set CB1 to the Off position (05-215).
- Reconnect B-A1J4D.
- Set CB1 to the On position (05-215).
- Press and hold the Lamp Test key.

Are any control panel lights on?

Y N

060

Go To Map 1701, Entry Point A.

061

Go to Page 4, Step 014, Entry Point B.

062

Go to Page 4, Step 014, Entry Point B.

063

- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the machine remain powered Off?

Y N

064

- Set the Unit Emergency switch to the Power Off position (05-205).

Go To Map 0577, Entry Point A.

065

Go to Page 4, Step 014, Entry Point B.

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MAP 0588-10

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0502 | A | 1 | 001 |
| 0588 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 8 | 058 | 9750 | B |
| 8 | 060 | 9750 | B |

001

(Entry Point A)

- Set CB1 to the Off position (05-215).
- Remove the cover from the AC box (05-215).

DANGER

High voltage is present in the AC box and on the line filter when the line cord is connected to the power outlet.

- Disconnect the line cord from the power outlet.
- Set the meter to measure ohms.
- Connect the meter from the ground contact on the line cord plug to ground on the frame.

(Step 001 continues)

MAP DESCRIPTION:

This MAP leads to the failing FRU that caused the dead machine (CB1) for the dual phase system.

ENTRY CONDITIONS:

The machine is connected to the power line. The circuit breaker (CB1) is tripped and the Unit Emergency switch is set to Power Off.

START CONDITIONS:

- Before starting this MAP, perform the operations in MAP 0502.

FRUs PARTIALLY TESTED:

- CB1
- AC cable
- AC fuse holder (F1,F2,F3,F4,F5)
- AC wires
- Relay K1
- Arc suppressor
- Line cord
- Line filter
- Gate fan
- Base fan
- Control transformer
- Base transformer
- A2 transformer
- A3 transformer
- TB1
- Diskette drive motor
- Disk fan

**Dead Machine Dual Phase
5360 Systems Unit**

PAGE 2 OF 8

(Step 001 continued)

Does the meter read less than 1 ohm?

Y N

002

The line cord is bad

---or---

The ground connection for the line cord at the line filter box is loose.

After repairing the above FRU(s), continue with the MAP.

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

003

- Connect the meter from each line contact to the neutral contact of the line cord plug(two resistance measurements).

Does the meter read more than 75 k-ohms for each contact?

Y N

004

- Disconnect the AC wires (from the line filters to the circuit breaker) at the line filters.

- Connect the meter across the line contact of the line cord plug.

Does the meter read more than 75 k-ohms?

Y N

005

The line cord is bad

---or---

The line filter assembly is bad.

006

The AC wires are bad (from the line filter to the circuit breaker)

---or---

The circuit breaker is bad.

A

MAP 0589-2

007

- Connect the meter from each line contact of the line cord to ground (two resistance measurements).

Does the meter read more than 75 k-ohms for each contact?

Y N

008

- Disconnect the AC wires (from the line filter to the circuit breaker) at the line filter.

- Connect the meter from each line contact of the line cord plug to ground.

Does the meter read more than 75 k-ohms for each circuit?

Y N

009

The line cord is bad

---or---

The line filter assembly is bad.

010

The AC wires are bad (from the line filter to the circuit breaker)

---or---

The circuit breaker is bad.

011

- Remove and check fuse F1.

- Reinstall fuse F1 (with a good fuse when bad).

- Disconnect J01 (05-215).

- Connect the meter from J01-1 on the transformer to ground.

Does the meter read more than 75 k-ohms?

Y N

012

- Reconnect J01.

The control transformer is bad.

A

3
B

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MAP 0589-2

Dead Machine Dual Phase

5360 Systems Unit

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013

- Connect the meter from J01-1 to J01-3 on the AC cable.

Does the meter read more than 75 k-ohms?

Y N

014

- Connect the meter from K1-1 to K1-6.

Note: The meter should first read a low resistance and change to a high resistance after the capacitor.

Does the meter read more than 75 k-ohms after the capacitor in RC-1 has charged (see note)?

Y N

015

- Reconnect J01.

The arc suppressor (RC-1) is bad

---or---

The relay (K1) is bad.

After repairing,

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

016

- Connect the meter from K1-2 to K1-6.

Does the meter read more than 75 k-ohms after the capacitor in RC-2 has charged (see note)?

Y N

017

- Reconnect J01.

The arc suppressor (RC-2) is bad

---or---

The relay (K1) is bad.

After repairing,

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

018

- Reconnect J01.

The AC cable is bad

---or---

CB1 is bad

---or---

AC fuse holder (F1) is bad.

C
3

**Dead Machine Dual Phase
5360 Systems Unit**

PAGE 4 OF 8

019

- Connect the meter from J01-1 on the AC cable to ground.

Does the meter read more than 75 k-ohms?

Y N

020

- Reconnect J01.
The AC cable is bad
---or---
CB1 is bad
---or---
Relay K1 is bad.

021

- Connect the meter from J01-3 on the AC cable to ground.

Does the meter read more than 75 k-ohms?

Y N

022

- Reconnect J01.
The AC cable is bad
---or---
CB1 is bad
---or---
Relay K1 is bad.

023

- Reconnect J01.
- Connect the meter from K1-3 to ground.

Does the meter read more than 75 k-ohms?

Y N

024

The AC cable is bad
---or---
CB1 is bad
---or---
Relay K1 is bad.

D

D

MAP 0589-4

025

- Install a good fuse for any fuse that is bad (F2, F3, F4 and F5).

- Connect the meter from K1-6 (05-215) to ground.

Does the meter read more than 75 k-ohms?

Y N

026

- Disconnect J02 (05-225).
- Connect the meter from K1-6 (05-215) to ground.

Does the meter read more than 75 k-ohms?

Y N

027

- Reconnect J02.
- Disconnect J03.
- Connect the meter from K1-6 (05-205) to ground.

Does the meter read more than 75 k-ohms?

Y N

028

- Reconnect J03 when present.
- Disconnect J04 (05-260) when present.
- Connect the meter from K1-6 (05-205) to ground.

Does the meter read more than 75 k-ohms?

Y N

029

- Reconnect J04 (05-260), when present.
- Disconnect J05 (05-205).
- Connect the meter from K1-6 to ground.

Does the meter read more than 75 k-ohms?

Y N

7 7 7 7 7 5
E F G H J K

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PEC -----

MAP 0589-4

K
4

Dead Machine Dual Phase
5360 Systems Unit
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030

- Reconnect J05.
- Disconnect J06 (05-205).
- Connect the meter from K1-6 (05-215) to ground.

Does the meter read more than 75 k-ohms?

Y N

031

- Reconnect J06.
- Disconnect J07 (05-205).
- Connect the meter from K1-6 (05-215) to ground.

Does the meter read more than 75 k-ohms?

Y N

032

- Reconnect J07.
- Disconnect J08 (05-205).
- Connect the meter from K1-6 (05-215) to ground.

Does the meter read more than 75 k-ohms?

Y N

033

- Reconnect J08.
- Disconnect J94 (05-205).
- Connect the meter from K1-6 to ground.

Does the meter read more than 75 k-ohms?

Y N

034

- Reconnect J94 (05-205).
- Disconnect J95 (05-285).
- Connect the meter from K1-6 to ground.

Does the meter read more than 75 k-ohms?

Y N

6 6 6 6 6
L M N P Q R

R

MAP 0589-5

035

- Disconnect and label each terminal on the output side of TB1 (05-275).
- Verify that all terminals on these cables do not come in contact with any other terminals or ground.
- Using the ohm meter, measure each terminal to ground.

Does any of the terminals measure less than 75 k-ohms?

Y N

036

- Disconnect each fuse holder (F2, F3, F4, F5) one at a time.
- Connect the meter from each fuse holder contact to ground (four resistance measurements).

Does the meter read more than 75 k-ohms for each fuse holder?

Y N

037

- Reconnect all cables.
- The AC fuse holder with less than 75 k-ohms to ground is bad.

038

- Reconnect all cables
- or---
- The AC cable is bad
- or---
- TB1 is bad
- or---
- Relay K1 is bad.

6
S

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MAP 0589-5

L M N P Q S
5 5 5 5 5 5

Dead Machine Dual Phase

MAP 0589-6

5360 Systems Unit

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039

- Reconnect all cables.
The load connected to the cable which reads less than 75 k-ohms is bad.
- Use table 1 to determine the failing load
---or---
The cable to this load is bad.

Table 1

--- File A and B AC Cable ---

File A TB1-1 TB1-4 Go to Map 9750, Entry Point B.

File B TB1-3 TB1-6 Go to Map 9750, Entry Point B.

10SR File Fan go to MAP 9750, Entry Point B.

--- Expansion AC cable ---

File C TB1-3 TB1-6 Go to Map 9750, Entry Point B.

File D TB1-1 TB1-4 Go to Map 9750, Entry Point B.

Wires in cable to Expansion fan TB1-3 TB1-6 Go to MAP 9750, Entry Point B.

Wires in Expansion transformer TB1-5 TB1-8 (The Expansion AC cable is bad).

10SR file fans Go to Map 9570, Entry Point B.

040

- Reconnect J95.
The Expansion transformer is bad (05-285).

041

- Reconnect J94 (05-205).
The Expansion fan is bad.

042

- Reconnect J08.
The disk fan is bad.

043

- Reconnect J07.
The diskette drive motor is bad.

044

- Reconnect J06.
The gate fan is bad.

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MAP 0589-6

E 4
F 4
G 4
H 4
J 4

**Dead Machine Dual Phase
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045

- Reconnect J05.
The base fan is bad.

046

- Reconnect J04.
The A3 transformer is bad.

047

- Reconnect J03.
The A2 transformer is bad.

048

- Reconnect J02.
The base transformer is bad.

049

- Disconnect J01 (05-215).
- Set the meter to measure Vac (highest range).
- Connect the meter J01-1 to J01-3 on the AC cable.
- Reconnect the line cord.
- Set CB1 to the On position (05-215).

Does the meter read more than 200 Vac?

Y N

050

- Set CB1 to the Off position (05-215).
- Disconnect the line cord.
- Set the meter to measure ohms.
- Connect the meter from J01-1 to CB1-L1.
- Set CB1 to the On position (05-215).

Does the meter read less than 1 ohm?

Y N

051

The circuit breaker is bad
---or---
The AC cable is bad (J01-1 to CB1-L1)
---or---
F1 fuse holder is bad.

T U

T U

MAP 0589-7

052

- Connect the meter from J01-3 to CB1-L2.
Does the meter read less than 1 ohm?

Y N

053

The circuit breaker is bad
---or---
The AC cable is bad (J01-2 to CB1-L2).

054

The line cord is bad
---or---
The line filter is bad
---or---
The AC wires are bad.

055

- Set CB1 to the Off position (05-215).
- Reconnect J01.
- Disconnect AC cable to disk drive A from TB1-1 and TB1-4.
- Disconnect AC cable to file B from TB1-3 and TB1-6.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Did the machine power on and stay on?

Y N

056

CB1 is bad.

057

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect AC cable to file B (TB1-3 and TB1-6).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Did the machine power on and stay on?

Y N

8 8
V W

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MAP 0589-7

V W
7 7

Dead Machine Dual Phase

MAP 0589-8

5360 Systems Unit

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058

- Set CB1 to the Off position (05-215).
- Reconnect the AC cable to file A (TB1-1 and TB1-4).
- Set CB1 to the On position (05-215).

To find a short circuit in file B,

Go To Map 9750, Entry Point B.

059

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect AC cable to file A (TB1-1 and TB1-4).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Did the machine power on and stay on?

Y N

060

To find a short circuit in file A,

Go To Map 9750, Entry Point B.

061

An intermittent short circuit was the only problem.

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MAP 0589-8

All UV Expansion
5360 Systems Unit

MAP 0590-1

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 3 | 015 | 0500 | B |

001
(Entry Point A)

MAP DESCRIPTION:
 This MAP locates the failing FRU for the Expansion Power Supply.

ENTRY CONDITIONS:
 Power check with all UV condition on the Expansion Power Supply.

START CONDITIONS:
 None

- FRUs PARTIALLY TESTED:**
- Lower maple block
 - Protect card
 - Jumper card (JC2)
 - Expansion transformer
 - Expansion AC capacitor
 - Expansion power assembly
 - E16 ground wire
 - Fuse F5
 - AC fuse holder (F5)
 - AC cable
 - JC2 cable

Is the expansion power supply installed (05-205)?

Y N

002
 The protect card is bad (05-220)
 ---or---
 The lower maple block is bad
 ---or---
 The jumper card in JC2 is bad.

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MAP 0590-1

A
1

**All UV Expansion
5360 Systems Unit**

PAGE 2 OF 6

003

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Connect the meter from E16 (05-290) to the DC ground board.

Does the meter read less than 1 ohm?

Y N

004

The E16 ground wire from E16 to the DC ground board is bad.

005

- Remove fuse F5 (05-215) from the AC box.

Is fuse F5 good?

Y N

006

- Install a good fuse (F5).
- Disconnect TB1-8 (05-275) on the output side and tape the terminal.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Set CB1 to the Off position (05-215).
- Remove fuse F5.

Is fuse F5 good?

Y N

007

- Install a good fuse F5.
 - Reconnect TB1-8.
- The AC cable is bad (a short circuit to ground)
---or---
The AC fuse holder at F5 is bad
---or---
TB1 is bad.

3
B C

C

MAP 0590-2

008

- Reinstall fuse F5.
- Reconnect TB1-8.
- Disconnect J95 (05-285).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Set CB1 to the Off position (05-215).
- Remove fuse F5.

Is fuse F5 good?

Y N

009

The Expansion AC cable is bad.

010

- Set CB1 to the Off position (05-215).
- Reconnect J95.
- Disconnect J85.
- Disconnect J87.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).
- Set CB1 to the Off position (05-215).
- Remove fuse F5.

Is fuse F5 good?

Y N

011

- Reconnect all cables.
- Install a good fuse for F5.

Go to Page 6, Step 036, Entry Point B.

012

- Reconnect all cables.
- Reinstall fuse F5.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does machine power on?

Y N

3
D E

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MAP 0590-2

B D E
2 2 2

**All UV Expansion
5360 Systems Unit**

MAP 0590-3

PAGE 3 OF 6

013

- Set CB1 to the Off position (05-215).
- Remove fuse F5.

Is fuse F5 good?

Y N

014

The Expansion power assembly is bad.

015

- Reinstall fuse F5.
 - Set CB1 to the On position (05-215).
- The original fuse was bad because of another problem.

Go To Map 0500, Entry Point B.

016

The bad fuse was the only problem.

017

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reinstall fuse F5.
- Disconnect J81, J82, J83, J84 and J93 (05-290).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set the meter to measure Vac.
- Connect the meter from J81 to J93 on the transformer side (05-285).
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter (see note 2).

Does the meter read more than 5.0 Vac?

Y N

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

4 4
F G

15Feb84 PN 2597082
EC 826487 PEC -----
MAP 0590-3

G
3

**All UV Expansion
5360 Systems Unit**

PAGE 4 OF 6

018

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J81, J82, J83, J84 and J93.
- Disconnect J95 (05-285).
- Set the meter to measure Vac (highest range).
- Connect the meter from J95-1 to J95-4 on the AC cable.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than 180 Vac?

Y N

019

- Reconnect J95.
 - Remove the jumper from the protect card.
- The AC cable is bad
(K1-3 to TB1-5)
(K5 to TB1-8)
(an open circuit from F2 to F5)
---or---
The Expansion AC cable is bad
(TB1-5 to J95-1)
(TB1-8 to J95-4)
---or---
The AC fuse holder for F5 is bad
---or---
TB1 is bad.

020

- Set CB1 to the Off position (05-215).
 - Reconnect J95.
 - Remove the jumper from the protect card.
- Go to Page 6, Step 036, Entry Point B.**

F
3

MAP 0590-4

021

- Set the Unit Emergency switch to the Power Off position (05-205).
- Reconnect J81, J82, J83, J84 and J93.
- Disconnect J89 (05-290).
- Set the meter to measure Vdc.
- Connect the meter from J89-3 (+) to J89-4 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

022

- Reconnect J89.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JC2 (05-220).
- Connect the meter from JC2-D04 (+) to JC2-D08 (-) on the lower maple block.

Does the meter read more than +4.5 Vdc?

Y N

023

- Reconnect JC2.
- The lower maple block is bad
---or---
The protect card is bad (05-220).

024

- Reconnect JC2.
- The JC2 cable from JC2 to J89 is bad.

025

- Connect the meter from J89-4 (+) to J89-5 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

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MAP 0590-4

5 5
H J

H J
4 4

**All UV Expansion
5360 Systems Unit**

PAGE 5 OF 6

026

- Reconnect J89.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JC2 (05-220).
- Connect the meter from JC2-D08 (+) to JC2-D05 (-) on the lower maple block.

Does the meter read more than +4.5 Vdc?

Y N

027

- Reconnect JC2.
- The lower maple block is bad
---or---
The protect card is bad (05-220).

028

- Reconnect JC2.
- The JC2 cable from JC2 to J89 is bad.

029

- Connect the meter from J89-10 (+) to J89-4 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

030

- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Reconnect J89.
- Disconnect JC2 (05-220).
- Connect the meter from JC2-B12 (+) to JC2-D08 (-) on the lower maple block.

Does the meter read more than +4.5 Vdc?

Y N

031

- The protect card is bad (05-220)
---or---
The lower maple block is bad.

K L

MAP 0590-5

032

The JC2 cable from JC2 to J89 is bad.

033

- Reconnect J89.
- Connect the meter from J89-10 (+) to J89-4 (-).
- Set the Unit Emergency switch to the Power Enable position (05-205) momentarily while observing the meter.

Does the meter read more than +4.5 Vdc?

Y N

034

- Remove the jumper from TP K1 and TP GND.
- The Expansion power assembly is bad (05-290).

035

- Remove the jumper from TP K1 and TP GND.
- The protect card is bad (05-220).

K L

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MAP 0590-5

**All UV Expansion
5360 Systems Unit**

MAP 0590-6

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036

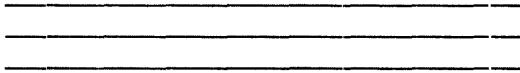
(Entry Point B)

- Set CB1 to the Off position (05-215).

- Use the following procedure to test the Expansion AC capacitor (05-205):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

Is the AC capacitor good (see note 3)?

Y N

037

- Remove the jumper from TP K1 (when present).
The Expansion AC capacitor is bad.

038

- Remove the Jumper from TP K1 (when present).
- Set the Unit Emergency switch to the Power Enable position (05-205).
The Expansion transformer is bad (05-285).

**Expansion Supply - Any UV Expansion
5360 Systems Unit**

MAP 0591-1

PAGE 1 OF 7

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |
| 0511 | A | 1 | 001 |
| 0518 | A | 1 | 001 |
| 0599 | A | 1 | 001 |

001
(Entry Point A)

MAP DESCRIPTION:

This MAP locates the failing FRU for the Expansion Power Supply.

ENTRY CONDITIONS:

The Power Status lights indicate an ANY UV condition. CS light is on when Lamp Test is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

Lower maple block
Protect card
Expansion transformer
Expansion AC capacitor
Expansion power assembly
Jumper card (JC2)
JC2 cable

Is the expansion power supply installed (05-205)?

Y N

002

The protect card is bad (05-220)

---or---

The lower maple block at JC2 is bad

---or---

The jumper card in JC2 is bad.

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PEC -----

MAP 0591-1

A
1

**Expansion Supply - Any UV
5360 Systems Unit**

MAP 0591-2

PAGE 2 OF 7

003

- Set CB1 to the Off position (05-215).
- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Disconnect J85 and J87 (05-290).
- Set CB1 to the On position (05-215).
- To measure the DC outputs of the Expansion power assembly:
 - Connect the meter to the pins in table 1 for each DC voltage while you:
 - Set the Unit Emergency switch to the Power Enable position (05-205) momentarily (see note 2).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Note 2: Momentarily is 3 to 5 seconds, just long enough to read the meter.

**Table 1
DC outputs Expansion power assembly**

| Supply DC voltage | Minimum Vdc | Pins to E16 |
|-------------------|-------------|------------------------|
| +36 | +33 | J85-10 J87-10 |
| -36 | -33 | J85-14 J87-14 |
| +12 | +11 | J85-11 J87-11 |
| -12 | -11 | J85-13 J87-13 |
| +5 | +4.5 | J85-1,2,3 J87-1,2,3 |
| -5 | -4.5 | J85-12 J87-12 |

Do any of the DC outputs read less than the minimum Vdc?

Y N

Y | N

5 3
B C

004

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J85 and J87.
- Disconnect J89 (05-290).
- Connect the meter from J89-9 (+) to J89-4 (-) on cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

005

- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Disconnect JC2 (05-220).
- Connect the meter from JC2-B11 (+) to JC2-D08 (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

006

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The lower maple block is bad
---or---
The protect card is bad (05-220).

007

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The JC2 cable from JC2 to J89 is bad.

008

- Connect the meter from J89-3 (+) to J89-4 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

Y N

009

- Set CB1 to the Off position (05-215).
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Reconnect J89.
- Disconnect JC2 (05-220).
- Connect the meter JC2-D04 (+) to JC2-D08 (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

010

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The lower maple block is bad
---or---
The protect card is bad (05-220).

011

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The JC2 cable from JC2 to J89 is bad.

012

- Connect the meter from J89-4 (+) to J89-5 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

013

- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JC2 (05-220).
- Connect the meter from JC2-D08 (+) to JC2-D05 (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

Y N

F G H
3 3 3

Expansion Supply - Any UV

MAP 0591-4

5360 Systems Unit

PAGE 4 OF 7

014

- Set CB1 to the Off position (05-215).
- Reconnect JC2.

The lower maple block is bad

---or---

The protect card is bad (05-220).

015

- Set CB1 to the Off position (05-215).
- Reconnect JC2.

The JC2 cable from JC2 to J89 is bad.

016

- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Connect the meter from J89-9 (+) to J89-4 (-) on the cable.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

017

The protect card is bad (05-220).

018

The Expansion power assembly is bad (05-290).

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PEC -----

MAP 0591-4

019

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J85 and J87.
- Disconnect J81, J82, J83 J84 and J93 (05-285).
- Set the meter to measure Vac.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Connect the meter (on the transformer cables) to the pins for the failing level in table 2 for both sides of the transformer windings.

Table 2
AC outputs Expansion
transformer (05-250)

| Failing DC level | Minimum Vac | Pins |
|------------------|-------------|--|
| +36 | 33 Vac | J83-1 to J83-2 and J83-3 to J83-4 |
| -36 | 33 Vac | J83-5 to J83-6 and J83-7 to J83-8 |
| -12 | 11 Vac | J84-8 to J84-9 and J84-10 to J84-9 |
| +12 | 11 Vac | J84-5 to J84-6 and J84-7 to J84-6 |
| +5 | 4.5 Vac | J81 to J93 |
| | 4.5 Vac | J82 to J93 |
| -5 | 4.5 Vac | J84-1 to J84-2 and J84-3 to J84-4 |
| | 4.5 Vac | J84-3 to J84-4 |

Does the meter read less than the minimum Vac
(Step 019 continues)

**Expansion Supply - Any UV
5360 Systems Unit**

MAP 0591-6

PAGE 6 OF 7

(Step 019 continued)
on any of the pins in table 2?

Y N

020

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Set CB1 to the Off position (05-215).
 - Reconnect J81, J82, J83, J84 and J93.
 - Remove the jumper from TP K1 and TP GND.
 - Set the Unit Emergency switch to the Power Enable position (05-205).
- The Expansion power assembly is bad (05-290).

021

- Set the Unit Emergency switch to the Power Off position (05-205).
 - Set CB1 to the Off position (05-215).
 - Reconnect J81, J82, J83, J84 and J93.
 - Remove the jumper from TP K1 and TP GND.
 - Set the Unit Emergency switch to the Power Enable position (05-205).
 - Set CB1 to the Off position (05-215).
- Use the following procedure to test the Expansion AC capacitor (05-205):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

- Remove the insulators from the AC capacitor.
 - Short circuit the AC capacitor terminals together before touching the terminals.
 - Disconnect the leads from the AC capacitor
- (Step 021 continues)

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MAP 0591-6

Expansion Supply - Any UV

MAP 0591-7

5360 Systems Unit

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(Step 021 continued)
terminals.

- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Is the AC capacitor good (see note 3)?

Y N

022

The Expansion AC capacitor is bad.

023

The Expansion transformer is bad (05-285).

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PEC -----

MAP 0591-7

A2 Supply - Any OV Expansion

MAP 0592-1

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

001

(Entry Point A)

MAP DESCRIPTION:

This MAP locates the failing FRU for the Expansion Power Supply.

ENTRY CONDITIONS:

The Power Status lights indicate an ANY OV condition of the Expansion Power Supply. CS light is on when Lamp Test is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Protect card
- Lower maple block
- E16 ground wire
- JC2 cable
- Expansion power assembly
- Expansion AC capacitor
- Expansion transformer

Is the Expansion power supply installed (05-205)?

Y N

002

The protect card is bad (05-220)

---or---

The lower maple block is bad.

A
1

A2 Supply - Any OV Expansion

MAP 0592-2

5360 Systems Unit

PAGE 2 OF 5

003

- Set CB1 to the Off position (05-215).
- Disconnect J85.
- Disconnect J87.
- Set the meter to measure ohms.
- Connect the meter from E16 to ground.

Does the meter read less than 1 ohm?

Y N

004

- Reconnect J51.
 - Reconnect J52.
 - Reconnect J56.
- The E16 ground wire from E16 (05-290) to the DC ground board is bad.

005

- Set the Unit Emergency switch to the Power Off position (05-205).
- Jumper from TP K1 to TP GND on the protect card (05-220) (see note 1).
- Set CB1 to the On position (05-215).
- Set the meter to measure Vdc.
- Connect the meter from J85-13 (+) to J85-6 (-) on the Expansion power supply.
- Set the Unit Emergency switch to the Power Enable position (05-205).

Note 1: This jumper on the protect card permits relay K1 to be controlled by the Unit Emergency switch.

Does the meter read more than 13.2 Vdc?

Y N

006

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J85 and J87.
- Disconnect J89 (05-290).
- Connect the meter from J89-11 (+) to J89-4 (-) on cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

4 3 3
B C D

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PEC -----

MAP 0592-2

C D
2 2

A2 Supply - Any OV Expansion

5360 Systems Unit

PAGE 3 OF 5

007

- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JC2 (05-220).
- Connect the meter from JC2-B09 (+) to JC2-D08 (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

008

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The protect card is bad (05-220)
 ---or---
 The lower maple block is bad.

009

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The JC2 cable from JC2 to J89 is bad.

010

- Connect the meter from J89-3 (+) to J89-4 (-) on the cable.

Does the meter read more than +4.5 Vdc?

Y N

011

- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JC2 (05-220).
- Connect the meter JC2-D04 (+) to JC2-D08 (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

E F G

E F G

MAP 0592-3

012

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The protect card is bad (05-220)
 ---or---
 The lower maple block is bad.

013

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The JC2 cable from JC2 to J89 is bad.

014

- Connect the meter from J89-4 (+) to J89-5 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

015

- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Remove the jumper from TP K1 and TP GND.
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Disconnect JC2 (05-220).
- Connect the meter from JC2-D08 (+) to JC2-D05 (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

016

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The protect card is bad (05-220)
 ---or---
 The lower maple block is bad.

017

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The JC2 cable from JC2 to J89 is bad.

4
H

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EC 826487 PEC -----

MAP 0592-3

B H
2 3

A2 Supply - Any OV Expansion

MAP 0592-4

5360 Systems Unit

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018

- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Connect the meter from J89-11 (+) to J89-4 (-) on the cable.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).

Does the meter read less than 4.5 Vdc?

Y N

019

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
The protect card is bad (05-220).

020

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
The Expansion power assembly is bad (05-290).

021

- Set the Unit Emergency switch to the Power Off position (05-205).
- Set CB1 to the Off position (05-215).
- Reconnect J85 and J87.
- Disconnect J81, J82, J83, J84 and J93.
- Set the meter to measure Vac.
- Set CB1 to the On position (05-215).
- Set the Unit Emergency switch to the Power Enable position (05-205).
- Connect the meter from J84-8 to J84-9 and J84-10 to J84-9 on the cable of the transformer.

Does the meter read more than 13.2 Vac for both connections?

Y N

022

- Set the Unit Emergency switch to the Power Off position (05-205).
- Remove the jumper from TP K1 and TP GND.
The Expansion power assembly is bad (05-290).

5
J

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EC 826487

PEC -----

MAP 0592-4

J
4

A2 Supply - Any OV Expansion

MAP 0592-5

5360 Systems Unit

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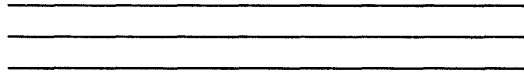
023

- Remove the jumper from TP K1 and TP GND.
- Set CB1 to the Off position (05-215).

- Use the following procedure to test the Expansion AC capacitor (05-285):

DANGER

Voltages up to 550 Vac are present on the AC capacitor when power is at the transformer.



- Remove the insulators from the AC capacitor.
- Short circuit the AC capacitor terminals together before touching the terminals.
- Disconnect the leads from the AC capacitor terminals.
- Set the meter to measure ohms (highest range).
- Connect the meter across the AC capacitor terminals.

Note 3: If the capacitor is good, the meter should indicate a low reading with a change to a high reading.

Is the AC capacitor good (see note 3)?

Y N

024

The Expansion AC capacitor is bad.

025

The expansion transformer is bad (05-285).

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PEC -----

MAP 0592-5

Expansion Supply - Any OC Expansion

MAP 0593-1

5360 Systems Unit

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ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| 0503 | A | 1 | 001 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 3 | 024 | 9750 | A |
| 4 | 026 | 9750 | A |

001

(Entry Point A)

MAP DESCRIPTION:

This MAP locates a failing FRU for the Expansion Power Supply.

ENTRY CONDITIONS:

The Power Status lights indicate an OC condition of the Expansion Power Supply.

CS light is on when Lamp Test is pressed.

START CONDITIONS:

None

FRUs PARTIALLY TESTED:

- Lower maple block
- Protect card
- Jumper card (JC2)
- Expansion power assembly
- Expansion transformer
- JC2 cable

Is the Expansion power supply installed (05-205)?

Y N

002

The protect card is bad (05-220)

---or---

The upper maple block is bad at JC2

---or---

The jumper card at JC2 is bad.

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PN 2597085

EC 826487

PEC -----

MAP 0593-1

A
1

**Expansion Supply - Any OC
5360 Systems Unit**

PAGE 2 OF 4

003

- Set CB1 to the Off position (05-215).
- Disconnect J85.
- Disconnect J87.
- Disconnect J89 (05-290).
- Disconnect E16 (05-290).
- Set the meter to measure ohms.
- Connect the meter from E16 (on the board) to ground.

Does the meter read more than 10 k-ohms?

Y N

004

- Reconnect all cables.
- The Expansion power assembly is bad (05-290).
- or---
- The expansion transformer is bad (05-285).

005

- Reconnect J89.
- Reconnect E16 (05-290).
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

006

- Set CB1 to the Off position (05-215).
- Reconnect J85 and J87.
- Disconnect J89 (05-290).
- Set the meter to measure Vdc.
- Connect the meter from J89-6 (+) to J89-4 (-) on the cable.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

3
B C D

C D

MAP 0593-2

007

- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Disconnect JC2 (05-220).
- Connect the meter from JC2-B10 (+) to JC2-D08 (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

008

- Set CB1 to the Off position (05-215).
- Reconnect all cables.
- The lower maple block is bad
- or---
- The protect card is bad (05-220).

009

- Set CB1 to the Off position (05-215).
- Reconnect all cables.
- The JC2 cable from JC2 to J89 is bad.

010

- Connect the meter from J89-3 (+) to J89-4 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

011

- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Disconnect JC2 (05-220).
- Connect the meter JC2-D04 (+) to JC2-D08 (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

012

- Set CB1 to the Off position (05-215).
- Reconnect JC2.
- The lower maple block is bad
- or---
- The protect card is bad (05-220).

3
E F

15Feb84 PN 2597085
 EC 826487 PEC -----
 MAP 0593-2

E F
2 2

Expansion Supply - Any OC

5360 Systems Unit

PAGE 3 OF 4

013

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The JC2 cable from JC2 to J89 is bad.

014

- Connect the meter from J89-4 (+) to J89-5 (-) on the cable.

Does the meter read more than 4.5 Vdc?

Y N

015

- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Disconnect JC2 (05-220).
- Connect the meter from JC2-D08 (+) to JC2-D05 (-) on the lower maple block.
- Set CB1 to the On position (05-215).

Does the meter read more than 4.5 Vdc?

Y N

016

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The protect card is bad (05-220)
 ---or---
 The lower maple block is bad.

017

- Set CB1 to the Off position (05-215).
 - Reconnect JC2.
- The JC2 cable from JC2 to J89 is bad.

018

- Set CB1 to the Off position (05-215).
- Reconnect J89.
- Connect the meter from J89-6 (+) on the cable to ground (-).
- Set CB1 to the On position (05-215).

Does the meter read less than 4.5 Vdc?

Y N

G H

B G H
2

MAP 0593-3

019

- Press the Power key (power on).
- Does the machine power on?**

Y N

020

The protect card is bad (05-220)

---or---

The Expansion power assembly is bad (05-290).

021

A loose connection was the only problem.

022

The Expansion power assembly is bad (05-290).

---or---

The J90 jumper assembly is bad (05-290).

023

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J85.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

024

- Set CB1 to the Off position (05-215).
 - Reconnect J87.
 - Set CB1 to the On position (05-215).
- To find a short circuit in disk drive C,
Go To Map 9750, Entry Point A.

4
J

15Feb84 PN 2597085

EC 826487 PEC -----

MAP 0593-3

J
3

Expansion Supply - Any OC

MAP 0593-4

5360 Systems Unit

PAGE 4 OF 4

025

- Select mode 6.
- Press the Power key (power off).
- Set CB1 to the Off position (05-215).
- Reconnect J87.
- Set CB1 to the On position (05-215).
- Press the Power key (power on).

Does the machine power on?

Y N

026

To find a short circuit in disk drive D,
Go To Map 9750, Entry Point A.

027

The only problem is:

Intermittent short circuit in the cable to a disk drive

---or---

Intermittent short circuit in a disk drive.

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PEC -----

MAP 0593-4

Voltage Missing MAP

MAP 0599-1

5360 Systems Unit

PAGE 1 OF 26

ENTRY POINTS

| FROM | ENTER THIS MAP | | |
|------------|----------------|-------------|-------------|
| MAP NUMBER | ENTRY POINT | PAGE NUMBER | STEP NUMBER |
| A333 | D | 14 | 062 |
| A336 | D | 14 | 062 |
| A348 | D | 14 | 062 |
| A349 | D | 14 | 062 |
| A350 | D | 14 | 062 |
| A355 | D | 14 | 062 |
| A370 | D | 14 | 062 |
| A372 | D | 14 | 062 |
| A373 | D | 14 | 062 |
| D201 | E | 22 | 117 |
| D202 | E | 22 | 117 |
| D203 | E | 22 | 117 |
| D207 | E | 22 | 117 |
| 0121 | A | 2 | 001 |
| 0121 | B | 6 | 014 |
| 0121 | C | 10 | 037 |
| 1700 | F | 26 | 134 |
| 3000 | C | 10 | 037 |
| 3003 | C | 10 | 037 |
| 5006 | B | 6 | 014 |
| 8114 | A | 2 | 001 |
| 8114 | C | 10 | 037 |
| 8138 | C | 10 | 037 |
| 9730 | D | 14 | 062 |
| 9730 | DA | 16 | 075 |

EXIT POINTS

| EXIT THIS MAP | | TO | |
|---------------|-------------|------------|-------------|
| PAGE NUMBER | STEP NUMBER | MAP NUMBER | ENTRY POINT |
| 19 | 091 | 0500 | A |
| 20 | 102 | 0500 | A |
| 5 | 011 | 0512 | A |
| 7 | 022 | 0512 | A |
| 16 | 068 | 0512 | A |
| 23 | 122 | 0512 | A |

Voltage Missing MAP

MAP 0599-2

5360 Systems Unit

PAGE 2 OF 26

001

(Entry Point A)

Voltage is missing on the A-A1 board.

MAP DESCRIPTION:

This MAP is used when the symptom is a missing voltage and the system does not power down with a power check.

This MAP will isolate the missing voltage between the power supply, the DC distribution cables and the logic boards.

ENTRY CONDITIONS:

Entry Point A = Voltage failing on A-A1 board.

Entry Point B = Voltage failing on A-A2 board.

Entry Point C = Voltage failing on A-A3 board.

Entry Point D = Voltage failing to disk drive boards or drive units.

Entry Point E = Voltage failing to the diskette drive unit

Entry Point F = Voltage failing on the control panel

START CONDITIONS:

An earlier MAP sensed a missing voltage at some logic card pin or test point.

FRUs PARTIALLY TESTED:

A-A1 boards

A-A2 boards

A-A3 boards

Distribution cables

Disk drive boards

Distribution cables to files

File control card

Is there more than one voltage missing?

Y N

002

- Select mode 6.

- Press the Power key (power off).

Go to Page 3, Step 005, Entry Point AA.

3
A

04Dec84

PN 4177347

EC 839954

PEC 826487

MAP 0599-2

5360 Systems Unit

PAGE 3 OF 26

003

- Select mode 6.
- Press the Power key (power off).
- Perform a service check on J35 (05-245) connector that supplies ground to the A-A1 board.
- Perform a service check on the ground connector and its pins.

Is it acceptable?

Y N

004

- Correct the problem.

005

(Entry Point AA)

- See FLD YA905 for logic board voltage connector locations.

Are all the minibus connectors installed correctly on the A-A1 board?

Y N

006

- Power down if you have not already done so.
- Install the voltage connectors correctly.

007

- Press the Power key (power on).
- Test for the missing voltage on all the minibus connectors that supply the A-A1 board (do not unplug the connectors from the board).
- See FLD YA905 for connector locations.

- If you remove the covers on the minibus connectors, reinstall them after probing.

Is the voltage missing on one or more of the connectors that it should be on?

Y N

008

Voltage is missing at a logic card but is present at the connectors.
The A-A1 board is bad.

B
3

Voltage Missing MAP

MAP 0599-4

5360 Systems Unit

PAGE 4 OF 26

009

- Set the meter to measure Vdc.
- With power on, connect the meter to the pins on the power supply connector.
- See chart A1-1 for probe information.
- Do not remove the DC distribution cable connectors from the power supplies.

Chart A1-1

| DC Voltage | Mini-mum Vdc | Connector | Pin | MIM Ref |
|------------|--------------|-----------|-------------|---------|
| +5 | +4.55 | J17 | 1,2,3,4,5,6 | 05-230 |
| -5 | -4.55 | J28 | 5 | 05-240 |
| +8.5 | +7.68 | J28 | 4 | 05-240 |
| +12 | +10.8 | J28 | 6 | 05-240 |
| -12 ** | -10.8 | J28 | 3 | 05-240 |
| Ground | Ground | J35 | 1 | 05-240 |

** -12 volts is required only when there is a card in A-A1G2 position.

Does the meter read more than the minimum Vdc for all voltages?

Y N

010

- Select mode 6.
- Press the Power key (power off).
- Ensure the DC cable connectors J17, J28 and J42 are installed in the power supply connectors correctly and ensure there are no bent or broken pins in the connectors.

Did you find a problem in any of the connectors?

Y N

Y N

5 5 5
C D E

C D E
4 4 4

Voltage Missing MAP

MAP 0599-5

5360 Systems Unit

PAGE 5 OF 26

011

Which voltage level is missing?

+5

The base 5V assembly is bad.

-5 or 8.5 or +12 or -12 V

The base power assembly is bad.

All of the above,

Go To Map 0512, Entry Point A.

012

- Correct the problem.

013

The DC distribution cable from the power supply to the A-A1 board is bad.

04Dec84 PN 4177347

EC 839954 PEC 826487

MAP 0599-5

Voltage Missing MAP

MAP 0599-6

5360 Systems Unit

PAGE 6 OF 26

014

(Entry Point B)

Voltage is missing on the A-A2 board.

Is there more than one voltage missing?

Y N

015

(Entry Point BA)

Is there an A2 supply installed in the machine?
(see note)

Y N

016

- See FLD YA915 for logic board voltage connector locations.

Are all the minibus connectors correctly installed on the board?

Y N

017

- Power down if you have not already done so.

- Install the minibus connectors correctly.

018

- See FLD YA915 for logic board voltage voltage connector locations.

- With power on, Test for the missing voltage on all minibus connectors that supply the A-A2 board (do not unseat the connectors from the board).

- If you remove the covers on the minibus connectors, reinstall them after probing.

Is the voltage missing on one or more of the connectors that it should be on?

Y N

Note: If there are 14 minibus connectors installed on the pin side of the A-A2 board, the A2 supply is installed. If there are only 4 minibus connectors, it is not installed.

1
0 8 7 7
F G H J

04Dec84 PN 4177347

EC 839954 PEC 826487

MAP 0599-6

H J
6 6

Voltage Missing MAP

MAP 0599-7

5360 Systems Unit

PAGE 7 OF 26

019

Voltage is missing at a logic card but is present at the minibus connector.
The A-A2 board is bad.

020

- Set the meter to measure Vdc.
- With power on, connect the meter to the pins on the power supply connector.
- See chart A2 for probe information.

Chart A2 (without A2 supply)

| DC Voltage | Minimum Vdc | Connector | Pin | MIM Ref |
|------------|-------------|-----------|-----|---------|
| +5 | +4.55 | J27 | 1,2 | 05-240 |
| -5 | -4.55 | J27 | 4 | 05-240 |
| +8.5 | +7.68 | J27 | 3 | 05-240 |
| Ground | Ground | J36 | 1 | 05-245 |

Does the meter read more than the minimum Vdc for all voltages?

Y N

021

- Select mode 6.
- Press the Power key (power off).
- Ensure the DC cable connector is installed in the power supply connectors correctly and ensure there are no bent or broken pins in the connectors

Did you find a problem in any of the connectors?

Y N

022

Which voltage level is missing?

+5 or -5 or 8.5

The base power assembly is bad.

All of the above,

Go To Map 0512, Entry Point A.

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EC 839954 PEC 826487

MAP 0599-7

8 8
K L

G K L
6 7 7

Voltage Missing MAP

MAP 0599-8

5360 Systems Unit

PAGE 8 OF 26

023

- Correct the problem.

024

The DC distribution cable from the power supply to the 1A-A2 board is bad.

025

- See FLD YB905 for logic board minibus connector locations.

Are all the voltage connectors correctly installed on the board?

Y N

026

- Power down if you have not already done so.
- Install the minibus connectors correctly.

027

- Press the Power key (power on).
- Test for the missing voltage on all the minibus connectors that supply the A-A2 board (do not unseat the connectors from the board).
- See FLD YB905 for connector locations.

- If you remove the covers on the minibus connectors, reinstall them after probing.

Is the voltage missing on one or more of the connectors that it should be on?

Y N

028

Voltage is missing at a logic card but is present at the minibus connectors.
The A-A2 board is bad.

9
M

04Dec84

PN 4177347

EC 839954

PEC 826487

MAP 0599-8

029

- Set the meter to measure Vdc.
- With power on, connect the meter to the pins on the power supply connector.
- See chart A2-1 for probe information.
- Do not remove the DC distribution cable connectors from the power supplies.

Chart A2-1 (with A2 supply)

| DC Voltage | Mini-mum Vdc | Connector | Pin | MIM Ref |
|------------|--------------|-----------|-----------|---------|
| +5 | +4.55 | J56 | 1,2, 5-15 | 05-250 |
| -5 | -4.55 | J27 | 4 | 05-240 |
| +8.5 | +7.68 | J27 | 3 | 05-240 |
| Ground | Ground | J36 | 1 | 05-245 |

Does the meter read more than the minimum Vdc for all voltages?

Y N

030

- Select mode 6.
- Press the Power key (power off).
- Ensure the DC cable connectors J27, J56 and J66 are installed in the power supply connector correctly and ensure there are no bent or broken pins in the connectors.

Did you find a problem in any of the connectors?

Y N

031

Which voltage level is missing?

+5

The A2 power assembly is bad.

-5 or 8.5

The base power assembly is bad

032

- Correct the problem.

F N
6 9

Voltage Missing MAP

MAP 0599-10

5360 Systems Unit

PAGE 10 OF 26

033

The DC distribution cable from the power supply to the A-A2 board is bad.

034

- Select mode 6.
- Press the Power key (power off).
- Perform a service check on the J36 (05-245) connector and pins that supplies ground to the A-A2 board.

Is it acceptable?

Y N

035

- Correct the problem.

036

- Press the Power key (power on).
- Go to Page 6, Step 015, Entry Point BA.

037

(Entry Point C)

Voltage is missing on the A-A3 board.

Is there more than one voltage missing?

Y N

038

- Select mode 6.
 - Press the Power key (power off).
- Go to Step 041, Entry Point CA.

039

- Select mode 6.
- Press the Power key (power off).
- Perform a service check on the J37 (05-245) connector and pins that supplies ground to the A-A3 board.

Is it acceptable?

Y N

040

- Correct the problem.

041

(Entry Point CA)

- See FLD YC905 for logic board voltage connector locations.

Are all the voltage connectors installed correctly on the board?

Y N

042

- Install the voltage connectors correctly.

043

Is the A3 1.7-volt regulator/preload assembly installed (05-262)?

Y N

1
2
P

1
1
Q

04Dec84

PN 4177347

EC 839954

PEC 826487

MAP 0599-10

0
1
0

Voltage Missing MAP

MAP 0599-11

5360 Systems Unit

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044

- Press the Power key (power on).
- See FLD YC905.
- Test for the missing voltage on all the voltage connectors that supply the A-A3 board.
- Do not unseat the connectors from the board.
- See FLD YC905 for connector locations.

- If you remove the covers on the minibus connectors, reinstall them after probing.

Is the voltage missing on one or more of the connectors that it should be on?

Y N

045

Voltage is missing at a logic card but is present at the voltage connectors.
The A-A3 board is bad.

046

- Set the meter to measure Vdc.
- With power on, connect the meter to the pins on the A3 power supply connector J75 (05-260).
- See chart A3 for probe information.
- Do not remove the DC distribution cable connectors from the power supply.

Chart A3

| DC Voltage | Minimum Vdc | Connector | Pin | MIM Ref |
|------------|-------------|-----------|-------------|---------|
| +5 | +4.55 | J75 | 7,8,9,10,11 | 05-260 |
| -5 | -4.55 | J75 | 5 | 05-260 |
| +8.5 | +7.68 | J75 | 12 | 05-260 |
| -12 | -10.8 | J75 | 6 | 05-240 |
| Ground | Ground | J37 | 1 | 05-245 |

Does the meter read more than the minimum Vdc for all voltages?

Y N

1
2
R

1
2
S

04Dec84 PN 4177347

EC 839954 PEC 826487

MAP 0599-11

P R S
1 1 1
0 1 1

Voltage Missing MAP
5360 Systems Unit

MAP 0599-12

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047

- Select mode 6.
- Press the Power key (power off).
- Ensure the DC cable connector J75 (05i-260) is installed in the power supply connectors correctly and ensure there are no bent or broken pins in the connectors.

Did you find a problem in any of the connectors?

Y N

048

Does the meter read less than minimum Vdc for all voltages?

Y N

049

The A3 power assembly is bad.

050

The DC distribution cable from the A3 power supply to the 1A-A3 board is bad.

051

- Correct the problem.

052

The DC distribution cable from the A3 power supply to the 1A-A3 board is bad.

053

- Press the Power key (power on).
- See FLD YC915.
- Test for the missing voltage on all the voltage connectors that supply the A-A3 board.
- Do not unseat the connectors from the board.
- See FLD YC915 for connector locations.

- If you remove the covers on the minibus connectors, reinstall them after probing.

Is the voltage missing on one or more of the connectors that it should be on?

Y N

1 1
3 3
T U

04Dec84 PN 4177347

EC 839954 PEC 826487

MAP 0599-12

T U
1 1
2 2

Voltage Missing MAP

MAP 0599-13

5360 Systems Unit

PAGE 13 OF 26

054

Voltage is missing at a logic card but is present at the voltage connectors.

The A-A3 board is bad.

055

- Set the meter to measure Vdc.
- With power on, connect the meter to the pins on the A3 power supply connector J75 (05-261).
- See chart A3-1 for probe information.
- Do not remove the DC distribution cable connectors from the power supply.

Chart A3-1

| DC Voltage | Minimum Vdc | Connector | Pin | MIM Ref |
|------------|-------------|-----------|---|---------|
| +5 | +4.55 | J75 | 4,5,6, 7,8,9, 10,11, 12,13, 14,15 | 05-261 |
| -5 | -4.55 | J75 | 2 | 05-261 |
| +8.5 | +7.68 | J75 | 1 | 05-261 |
| -12 | -10.8 | J75 | 3 | 05-261 |
| Ground | Ground | E14 | E14 | 05-261 |

Does the meter read more than the minimum Vdc for all voltages?

Y N

056

- Select mode 6.
- Press the Power key (power off).
- Ensure the DC cable connector J75 (05-260) is installed in the power supply connectors correctly and ensure there are no bent or broken pins in the connectors.

Did you find a problem in any of the connectors?

Y N

1 1 1
4 4 4
V W X

04Dec84 PN 4177347

EC 839954 PEC 826487

MAP 0599-13

V W X
1 1 1
3 3 3

Voltage Missing MAP

MAP 0599-14

5360 Systems Unit

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057

Does the meter read less than minimum Vdc for all voltages?

Y N

058

The A3 power assembly is bad.

059

The DC distribution cable from the A3 power supply to the 1A-A3 board is bad.

060

- Correct the problem.

061

The DC distribution cable from the A3 power supply to the 1A-A3 board is bad.

062

(Entry Point D)

Voltage is missing on the disk drive unit.

Does your system have 1 or more 10SR drives installed?

Y N

063

You have one or more 21ED drives installed in the machine.

If you have 2 drives, the 1st probe point or location in a step is for the first drive, the second probe point is for the second drive.

If you have only 21ED drive, use just the first point.

Is there more than one voltage missing?

Y N

064

(Entry Point DC)

- See MIM 95-225 and 95-235 for 21ED power distribution (FLD YA170/YA175).

Is the power cable installed correctly on the 21ED drive maple board?

Y N

065

- Select mode 6.
- Press the Power key (power off).
- Install the power cable correctly.

1 1 1
6 6 A
Y Z A

04Dec84 PN 4177347

EC 839954 PEC 826487

MAP 0599-14

A
A
1
4

Voltage Missing MAP
5360 Systems Unit
PAGE 15 OF 26

MAP 0599-15

066

- Set the meter to measure Vdc.
- With power on, connect the meter to the pins on the power supply connector.
- See chart S1 for probe information.
- Do not remove the DC distribution cable connectors from the power supplies.

Chart S1

| DC VOLT- AGE | Mini- mum Vdc | Connector Pin | MIM Ref |
|--------------------|---------------------|----------------------------|------------|
| +5 | +4.55 | J25 6,9 J26 6,9 | 05-240 |
| -5 | -4.55 | J25 8 J26 8 | 05-240 |
| +24 | +21.6 | J25 1,4,7 J26 1,4,7 | 05-240 |
| Ground | Ground | J39 1 J40 | 05-245 |

A
|

A drive (1st)--
B drive (2nd)

Does the meter read more than the minimum Vdc for all voltages?

Y N

067

- Select mode 6.
- Press the Power key (power off).
- Ensure the DC cable connectors in chart S1 are installed in the power supply connectors correctly and ensure there are no bent or broken pins in the connectors.

Did you find a problem in any of the connectors?

Y N

1 1 1
6 6 6
A A A
B C D

04Dec84 PN 4177347

EC 839954 PEC 826487

MAP 0599-15

Y 1
4
Z 1
4
A 1
5
B 1
5
C 1
5
D 1
5

Voltage Missing MAP

5360 Systems Unit

PAGE 16 OF 26

068

Which voltage level is missing?

+5 or -5 or +24

The base power assembly is bad.

All of the above,

Go To Map 0512, Entry Point A.

069

- Correct the problem.

070

The DC distribution cable from the power supply to the 21ED disk drive maple block is bad.

071

- Select mode 6.
- Press the Power key (power off).
- Perform a service check on J39 (05-245) or J40 connector that supplies ground to the 21ED disk drive maple block.

Is it acceptable?

Y N

072

- Correct the problem.

073

- Press the Power key (power on).

Go to Page 14, Step 064, Entry Point DC.

074

This route isolates power problems in the 10SR drive hardware area. If you have 2 drives, the 1st probe point or location in a step is for the 1st drive, the second probe point is for the 2nd drive. If you have only one 10SR drive, use the 1st probe point only.

Is there more than one voltage missing?

Y N

2
1
A
E
A
F

A
F

MAP 0599-16

075

(Entry Point DA)

- See MIM 97-225 or 230 for logic board voltage connector locations.

Are all the cable connectors installed correctly on the A1 board of the failing drive?

Y N

076

- Select mode 6.
- Press the Power key (power off).
- Install the voltage connectors correctly.

077

Is (-power good) logic signal to the A1 board of the failing drive the problem (from 10SR MAPs)?

Y N

078

- Test the missing voltage on all the cable connectors that supply the disk drive unit (do not unseat the connectors from the board).
- If you remove the covers on the cable connectors, reinstall them after probing (MIM 97-225 and 97-320, FLD YA170).

Is the voltage missing on one or more of the connectors that it should be on?

Y N

079

Is the missing voltage + 36 volts or - 36 volts?

Y N

080

Voltage is missing at a logic card but is present at the cable connectors.
The disk drive A1 board is bad.

081

The VCM driver assembly is bad (MIM 97-215).

1
9
A
G
1
7
A
H

04Dec84

PN 4177347

EC 839954

PEC 826487

MAP 0599-16

Voltage Missing MAP

5360 Systems Unit

082

- Set the meter to measure Vdc.
- With power on, connect the meter to the pins on the power supply connector.
- See chart F1 for probe information.
- Do not remove the DC distribution cable connectors from the power supplies.

Chart F1

| DC Voltage | Mini-mum Vdc | Connector | Pin | MIM Ref |
|------------|--------------|-----------|----------------|---------|
| +5 | +4.55 | J25 | 6,9 | 05-240 |
| | | J26 | 6,9 | |
| | | J85 | 1,2,3 | 05-290 |
| | | J87 | 1,2,3 | 05-290 |
| -5 | -4.55 | J25 | 8 | 05-240 |
| | | J26 | 8 | |
| | | J85 | 12 | 05-290 |
| | | J87 | 12 | 05-290 |
| +12 | +10.8 | J25 | 2 | 05-240 |
| | | J26 | 2 | |
| | | J85 | 11 | 05-290 |
| | | J87 | 11 | 05-290 |
| -12 | -10.8 | J51 | 7 | 05-250 |
| | | J52 | 7 | |
| | | J85 | 13 | 05-290 |
| | | J87 | 13 | 05-290 |
| Ground | Ground | J39 | 1 | 05-245 |
| | | J40 | 1 | |
| | | J85 | 4,5,6 7,8,9 | 05-290 |
| | | J87 | 4,5,6 7,8,9 | 05-290 |
| +36 | +32.4 | J51 | 2 | 05-250 |
| | | J52 | 2 | |
| | | J85 | 10 | 05-290 |
| | | J87 | 10 | 05-290 |
| Ground | Ground | J51 | 3,4 | |
| | | J52 | 3,4 | |
| -36 | -32.4 | J51 | 5 | 05-250 |
| | | J52 | | |
| | | J85 | 14 | 05-290 |

(Step 082 continues)

(Step 082 continues)

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Voltage Missing MAP

MAP 0599-18

5360 Systems Unit

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(Step 082 continued)

| | | | | |
|----------------------|--------|--------|-----|--|
| (Step 082 continued) | | | | |
| J87 | 14 | 05-290 | | |
| Ground | Ground | J51 | 3,4 | |
| | | J52 | 3,4 | |

-
- A
|
- A drive (1st)--
 - B drive (2nd)
 - C drive (3rd)
 - D drive (4th)

Does the meter read more than the minimum Vdc for all voltages?

Y N

083

- Select mode 6.
- Press the Power key (power off).
- Ensure the DC cable connectors in chart F1 are installed in the power supply connectors correctly and ensure there are no bent or broken pins in the connectors.

Did you find a problem in any of the connectors?

Y N

084

Which voltage level from chart F1 is missing?

+5 or -5 or +12 (Drive A or B)
The base power assembly is bad

+36 or -36 or -12 (Drive A or B)
The A2 power assembly is bad.

Any voltage on Drive C or D.
The Expansion power assembly is bad.

085

- Correct the problem.

086

The DC distribution cable from the power supply to the disk drive unit is bad.

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EC 839954

PEC 826487

MAP 0599-18

A
G
1
6

Voltage Missing MAP

5360 Systems Unit

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087

- With power on, probe (-power good):

Up Light: Off
Down Light: On

- 1F-A1B4E01 (if A drive)
- 1G-A1B4E01 (if B drive)
- 2F-A1B4E01 (if C drive)
- 2G-A1B4E01 (if D drive).

Are the lights correct?

Y N

088

Is the problem on Drive A or B?

Y N

089

- Probe (-power good) on the Expansion Power Supply connector:
- Use TP +5 and GND on the protect card (05-220) to power the probe.

Up Light: Off
Down Light: On

- J85 pin 15 (if C drive) (05-250).
- J87 pin 15 (if D drive) (05-250).

- Do not unseat the DC distribution cable connectors from the connector locations.

Are the lights correct?

Y N

090

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

Did the machine power off?

Y N

091

Go To Map 0500, Entry Point A.

2 2
0 0
A A
J K L M

A A
L M

MAP 0599-19

092

- Ensure the DC cable connectors J2C (05-290), J2D (05-290) are installed in the power supply connectors correctly and ensure there are no bent or broken pins in the connectors.

Did you find a problem in any of the connectors?

Y N

093

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Disconnect J89 (05-290).
- Connect the meter J89-8 to J85-15.

Does the meter read less than 1 ohm?

Y N

094

The Expansion assembly is bad.

095

- Disconnect JC2 (05-220).
- Connect the meter from J89-8 to JC2-B08.

Does the meter read less than 1 ohm?

Y N

096

The JC2 cable is bad.

097

The protect card is bad (05-220)

---or---

The lower maple block is bad.

098

- Correct the problem.

099

The DC distribution cable from the expansion supply J85 (Drive C) or J87 (Drive D) (05-290) connector to the disk drive A1 board is bad.

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EC 839954 PEC 826487

MAP 0599-19

A
K
1
9

Voltage Missing MAP
5360 Systems Unit

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100

- Probe (-power good) A2 power supply connector:
- Use TP +5 and GND on the protect card (05-220) to power the probe.

Up Light: Off

Down Light: On

J51 pin 8 (if A drive) (05-250)

J52 pin 8 (if B drive) (05-250).

- Do not unseat the DC distribution cable connectors from the connector locations.

Are the lights correct?

Y N

101

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

Did the machine power off?

Y N

102

Go To Map 0500, Entry Point A.

103

- Ensure the DC cable connectors J17 (05-230), J28 (05-240) and J42 (05-235) are installed in the power supply connectors correctly and ensure there are no bent or broken pins in the connectors

Did you find a problem in any of the connectors?

Y N

104

- Set CB1 to the Off position (05-215).
- Set the meter to measure ohms.
- Disconnect J54 (05-250).
- Connect the meter J54-8 to J51-8.

Does the meter read less than 1 ohm?

Y N

105

The A2 power assembly is bad.

A
N
A
P
A
Q

MAP 0599-20

A
J
1
9
A
N
A
P
A
Q

106

- Connect the meter from J54-8 to J52-8.
- Does the meter read less than 1 ohm?

Y N

107

The A2 power assembly is bad.

108

- Disconnect JA2 (05-220).
- Connect the meter from J54-8 to JA2-D03.

Does the meter read less than 1 ohm?

Y N

109

The JA2 cable is bad.

110

The protect card is bad (05-220)

---or---

The upper maple block is bad.

111

- Correct the problem.

112

The DC distribution cable from the A2 supply J51 or J52 (05-250) connector to the disk drive A1 board is bad.

113

(-Power Good) is missing at a logic card but is present at the cable connectors. The disk drive logic board is bad.

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EC 839954

PEC 826487

MAP 0599-20

A
E
I
6

Voltage Missing MAP

MAP 0599-21

5360 Systems Unit

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114

- Select mode 6.
- Press the Power key (power off).
- Perform a service check on the J39 or J40 (05-245) (for disk A and B) connector that supplies ground to the disk drive A1 board.
- Perform a service check on E09 (DC ground board) to E16 (05-290) (Disk C and D).

Is it acceptable?

Y N

115

- Correct the problem.

116

- Press the Power key (power on).
- Go to Page 16, Step 075, Entry Point DA.**

04Dec84

PN 4177347

EC 839954

PEC 826487

MAP 0599-21

Voltage Missing MAP

MAP 0599-22

5360 Systems Unit

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117

(Entry Point E)

Voltage is missing to the diskette drive.

Is there more than one voltage missing?

Y N

118

(Entry Point EA)

- See YA170 for diskette power cabling (MIM 05-240, J23 to diskette drive).

Is the DC distribution power cable correctly installed in the diskette drive?

Y N

119

- Select mode 6.
- Press the Power key (power off).
- Install the power cable correctly.

120

- Set the meter to measure Vdc.
- With power on, connect the meter to the pins on the power supply connector.
- See chart D1 for probe information.
- Do not remove the DC distribution cable connectors from the power supplies.

Chart D1

| DC Voltage | Mini- mum Vdc | Connector | Pin | MIM Ref |
|---------------|---------------------|-----------|-----|------------|
| +5 | +4.55 | J23 | 1 | 05-240 |
| -5 | -4.55 | J23 | 2 | 05-240 |
| +24 | +21.6 | J23 | 3 | 05-240 |
| Ground | Ground | J39 | 1 | 05-245 |

Does the meter read more than the minimum Vdc for all voltages?

Y N

2 2 2
5 3 3
A A A
R S T

04Dec84

PN 4177347

EC 839954

PEC 826487

MAP 0599-22

A
S
2
2

Voltage Missing MAP

MAP 0599-23

5360 Systems Unit

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121

- Select mode 6.
- Press the Power key (power off).
- Ensure the DC cable connector J23 (05-240) is installed in the power supply connectors correctly and ensure there are no bent or broken pins in the connectors.

Did you find a problem in the connector?

Y N

122

Which voltage level is missing?

+5 or -5 or +24

The base power assembly is bad.

All of the above,

Go To Map 0512, Entry Point A.

123

- Correct the problem.

124

Note: a 72MD uses a magazine to load the diskette.

Is the diskette drive unit a 72MD?

Y N

2
5
A
U

04Dec84 PN 4177347

EC 839954 PEC 826487

MAP 0599-23

A
V
2
3

Voltage Missing MAP

MAP 0599-24

5360 Systems Unit

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125

Then it is a 51TD.

- With power on, connect the meter to the pins on the I/O connector on the file card.
- See chart 51TD for probe information.
- See 51TD MIM 91-250 for the connector locations.

Chart 51TD

| DC Voltage | Mini- mum Vdc | File card Connector Pin | MIM Ref |
|---------------|---------------------|-------------------------------|------------|
| +5 | +4.55 | I/O B01 | 91-250 |
| -5 | -4.55 | I/O A01 | 91-250 |
| +24 | +21.6 | I/O B03 | 91-250 |
| Ground | Ground | I/O A02 | 91-250 |

Does the meter read more than the minimum Vdc for all voltages?

Y N

126

The DC distribution cable from the power supply J23 to the diskette drive unit I/O connector is bad.

127

The diskette file control card is bad.

04Dec84

PN 4177347

EC 839954

PEC 826487

MAP 0599-24

AR
22
23

Voltage Missing MAP

MAP 0599-25

5360 Systems Unit

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128

- Set the meter to measure Vdc.
- With power on, connect the meter to the pins on the J1 connector of the diskette unit.
- See chart 72MD for probe information.
- See 72MD MIM 93-250 and 93-255 for the connector locations.

Chart 72MD

| DC Volt- age | Mini- mum Vdc | Connector Pin | MIM Ref |
|-----------------|---------------------|------------------|------------|
| +5 | +4.55 | J1 3 | 93-250 |
| -5 | -4.55 | J1 2 | 93-250 |
| +24 | +21.6 | J1 1 | 93-250 |
| Ground | Ground | J1 4,5,6,7 | 93-250 |

Does the meter read more than the minimum Vdc for all voltages?

Y N

129

The DC distribution cable from the power supply J23 to the diskette drive unit is bad.

130

The driver board assembly (93-250) is bad.

131

- Select mode 6.
- Press the Power key (power off).
- Perform a service check on the J38 (05-245) connector that supplies ground to the diskette driver unit.

Is it acceptable?

Y N

132

- Correct the problem.

133

- Press the Power key (power on).

Go to Page 22, Step 118, Entry Point EA.

04Dec84

PN 4177347

EC 839954

PEC 826487

MAP 0599-25

Voltage Missing MAP

MAP 0599-26

5360 Systems Unit

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134

(Entry Point F)

Voltage is missing on the control panel.

- Reconnect J4C (10-215).
- Disconnect J21 (05-240).
- Set the meter to measure Vdc.
- Connect the meter J21-1 (red) to J21-2 (black) on the base power assembly.

Does the meter read more than 4.5 Vdc?

Y N

135

The base power assembly is bad.

136

The J21 cable is bad.

04Dec84 PN 4177347
EC 839954 PEC 826487
MAP 0599-26