XEROX

Internal Memo

To	**From**
DISTRIBUTION	Harold Pangle
	A1-59/1511
	CP-HP-5368

Subject	**Date**
ALTO BULLETIN SYSTEM (AL01)	May 22, 1978

This is the first in a series of bulletins which will be sent out as needed to inform the ALTO maintenance personnel within DSD of any ALTO or peripheral related problems. It will also be used to inform the maintenance people of any hardware changes relating to the equipment.

The memos will be numbered sequentially and an index will be sent out periodically. The index will always be Bulletin AL00. Since this is the first bulletin, it is numbered AL01.

If you have any questions regarding the ALTO bulletin system or the bulletins themselves, please call me.

Harold E. Pangle

HAROLD PANGLE
DSSS Product Support

HP/mp
PRO 6

DISTRIBUTION: Duane Baugher
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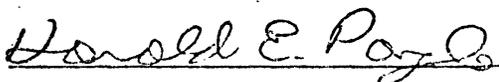## Internal Memo

To

DISTRIBUTION

From

Harold Pangle
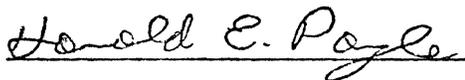A1-59/1511
CP-HP-5372

Subject

ALTO Bulletin AL02

Date

May 25, 1978

This bulletin contains a new document which was developed by Frank Ludolph. The document is called "The ALTO User's Primer".

It is suggested that the Alto maintenance people within DSD become familiar with it. It could answer some of your questions relating to the ALTO software and/or hardware.

If you have any questions, feel free to contact me.

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To

Distribution

From

Harold Pangle
A1-59/1511
CP/HP-5430

Subject

Alto Bulletin (ALO3)

Date

Aug. 3, 1978

This bulletin contains the Alto Hardware Manual. This
document is a description of the Alto I and Alto II; its
hardware and microcode. If there is a difference between
the explanation of the Alto I and Alto II the manual notes
it and describes it both ways. You need only concern yourself
with the Alto II and hardware parts of this manual. This
Document is provided to the field as an aid in understanding
the operation of the Alto and its related equipment. If you
have any questions or comments about this document please
call me.

Enclosure
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To

Distribution

From

Harold Pangle
A1-59-1511
CP-HP-5431

Subject

Alto Bulletin (ALO4)

Date

Aug. 3, 1978

This bulletin contains the Alto Subsystems Manual. This
Document is a directory of major Alto BCPL Subsystems.   The
subsystems manual explains operation/usage of most of the
software programs that you need to know.   Other programs
are either not documented or have self contained documentation.
If you have any questions about the software programs of the
Alto Subsystems Manual, call me.

Enclosure
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To

Distribution

From

Harold Pangle
A1-59/1511
CP-HP-5432

Subject

Alto Bulletin (ALO5)

Date

Aug. 3, 1978

This bulletin contains "A Field Guide to Alto Land or Ex-
ploring the Ethernet with Mouse and Keyboard". This
Document was written to aid programmers in adapting to the
Alto. It has some very good general information and explains
a lot of common things relating to the Alto that are taken
for granted. Please note that this is just a draft and it
could have some mistakes in it. If you have any questions
please call me.

Enclosure
PRO 6
HP/ak

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George Carlson	Palo Alto (Hanover)

To	From
Distribution	Harold Pangle A1-59/1511 CP-HP-5433

| Subject	Date
Alto Bulletin (AL06)	Aug. 3, 1978

This bulletin describes the correct way to change backplanes.

A) Unplug A/C cord.
B) Unplug all modules in processor.
C) Record and remove address jumpers.
D) Remove power supply LED's.
E) Mark and remove the following voltage wires that are
   connected to the backplane.

Voltage	Color of Wire
+15 Volts	(Purple)
-15 Volts	(Yellow)
+12 Volts	(Blue)
- 5 Volts	(Gray)
+ 5 Volts	(Red)
Ground	(Orange)

F) Remove the 12 bolts holding the backplane onto the frame,
   taking note which bolts have the washers.

These four (4) bolts
have washers.
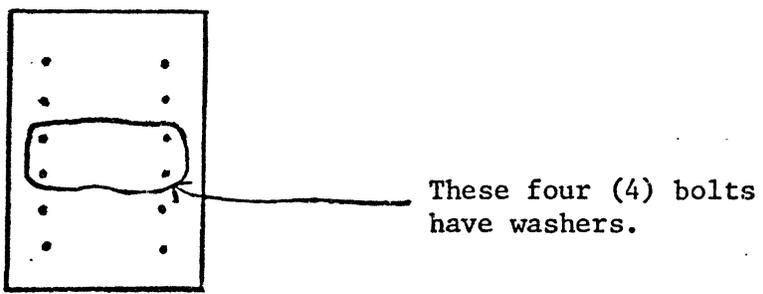
G) Carefully remove backplane.

H) Inspect the new backplane for bent pins or other abnor-
   malities.

I) Install new backplane in reverse order.

* NOTE: When installing backplane be sure only bolts with washers touch backplane etch.

H) Run all diagnostics to verify proper operation.

If you have any comments or questions about this bulletin please call me.

PRO 6
HP/ak

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Frank Simari	Boston
Jim Zak	Los Angeles

Harold

To	From
Distribution	Harold Pangle A1-59/1511 CP-HP-5460
Subject	Date
ALTO BULLETIN (AL07)	August 15, 1978

The Alto II Ethernet module, Assy. No. 216323, was found to have an Engineering Order (E/O) installed incorrectly. This only happened to approximately 16 Alto II's shipped around July 1978. However, all Alto II's that experience Ethernet type problems should be checked for this. The problems will show up as not booting from Ethernet (intermittent) or Transmission/Receive errors (using PUPTEST). Figure 1 shows where the E/O is located at on the module (attached).

The E/O is shown correctly in Figure 2 and shown incorrectly in Figure 3 (attached). If you have any problems with Ethernet modules, please verify that the E/O as shown in Figure 2 is the same as the module. If the module matches Figure 3, rework the resistor to match Figure 2.
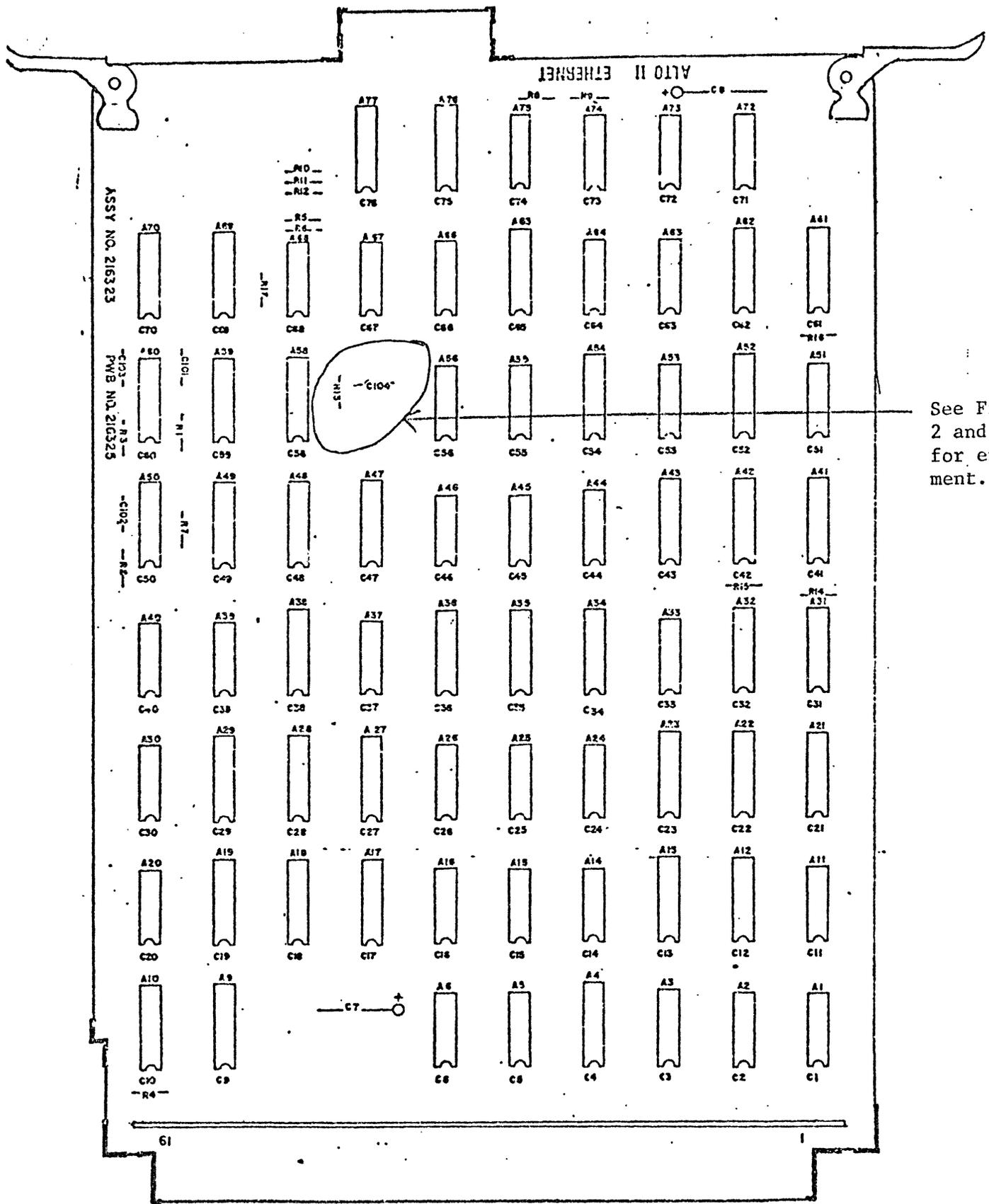
If you have any questions or problems, please call me.

HAROLD PANGLE
DSSS Product Support

HP:blg
PRO 6
Attachments: Figure 1
              Figure 2
              Figure 3

Distribution:

Duane Baugher   George Millis
Bob Buckley   Frank Simari
Brad Burns   Ray Williams
George Carlsen   Jim Zak
Harry Cone
Bill Evans
Charles Garcia
Phil Hoffman
Joe Irick
Don Kelly
Joe Kennedy

ALTO II ETHERNET

ASSY NO. 216323

PWB NO. 216325

FIGURE 1

10 ohm resistor

C104

R13

**1K
ohm
resistor**

470 ohm resistor

FIGURE 2
Engineering Order Done <u>Correctly</u>

10 ohm resistor

C104

R13
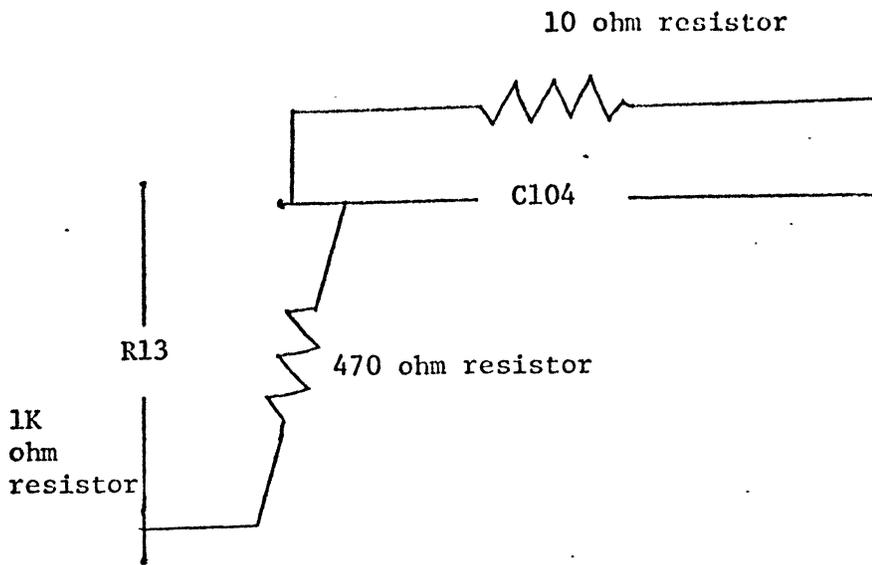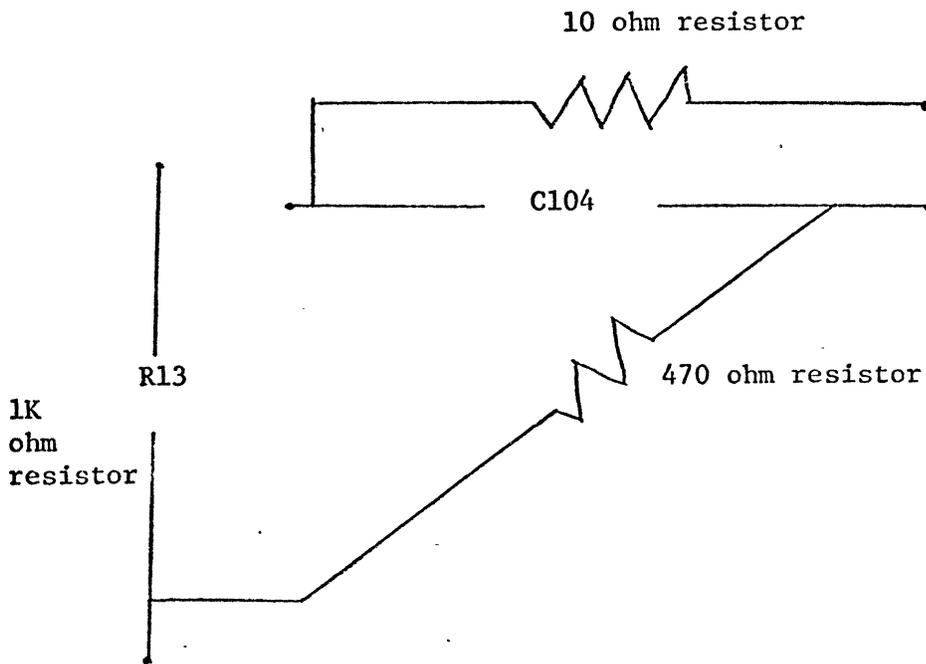
**1K
ohm
resistor**

470 ohm resistor

FIGURE 3
Engineering Order Done <u>Incorrectly</u>

<u>NOTE:</u> The 470 ohm resistor is on the wrong end of capacitor C104. It should be on the same end as the 10 ohm resistor is.

XEROX   Internal Memo

To	From
Distribution	George Carlsen PARC/ASD 8-923-4650

Subject	Date
ALTO BULLETIN (AL08) DISTURBING SLOT HEAD ALIGNMENT WHEN MOVING DOVERS	September 6, 1978

There is a possibility that when moving Dovers the Main Frame Flex is being transferred to the slot head base. This flexing may be disturbing the alignment of the slot head.
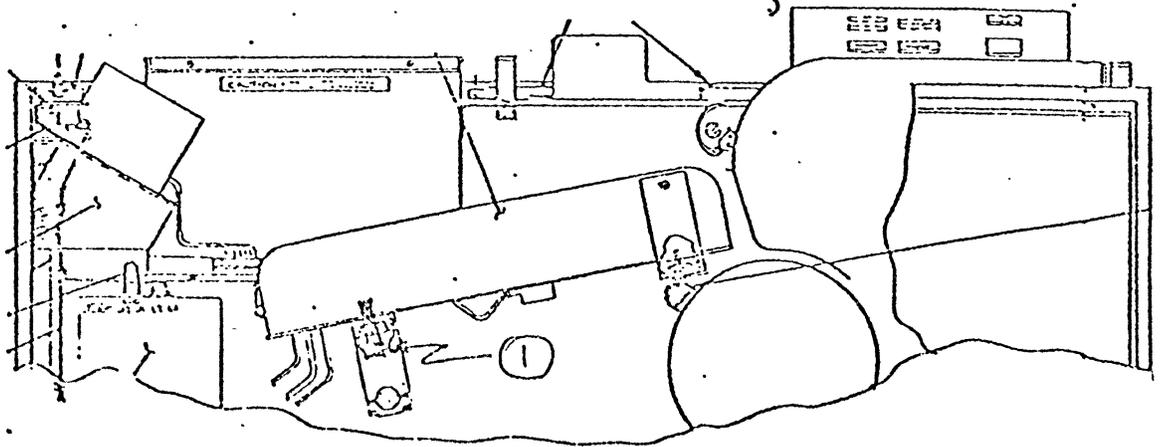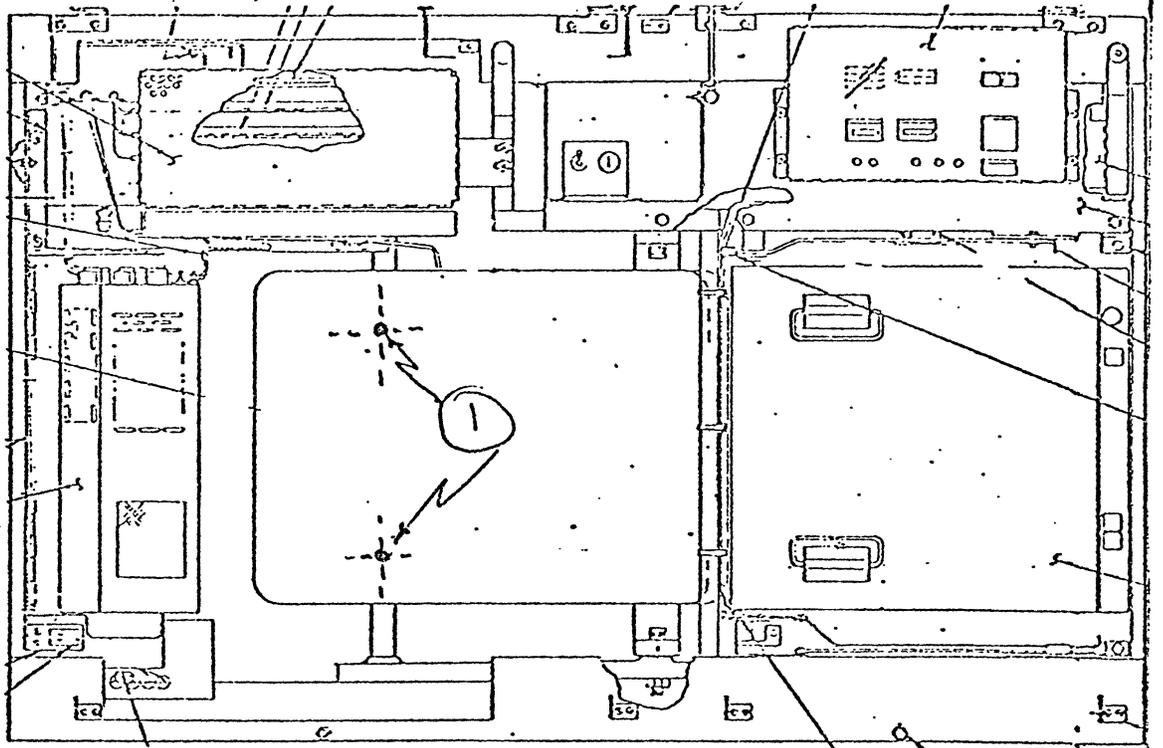
To prevent this problem, when a Dover is to be moved, the two allen bolts (item #1 on attached sheet) that attach the head to the lower mounting brace should be loosened before the Dover is moved. Then retighten the allen bolts once the Dover is in place.

If you have any questions or problems, please call me at 8-923-4650.
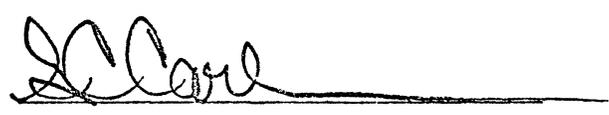
GEORGE CARLSEN

GC:blg
PRO 6
Attachments

To	From
Distribution	Harold Pangle A1-59/1511 CP-HP-5473

Subject	Date
ALTO BULLETIN (AL09)	September 6, 1978

This bulletin pertains to the Disc Control Module, Assembly #216389. A problem was found in the module in that when the processor was powered up, the Disc Control Module would not always be left in a bootable state. This problem was found to be intermittent and sometimes recycling the Alto and/or reseating the Disc Control Module would correct the problem.

An Engineering Order (E/O) has come out to permanently correct the problem. It should be done if the Disc Control Module fails or during installation of an Alto or at next preventative maintenance time. The E/O is described below.

Perform the following to the Disc Control Module, Assembly #216389:

1. Remove chip A67 from its socket being careful not to bend the pins and noting the correct way the chip faces in the socket.

2. Cut etch between chip A67 pin 1 and chip A67 pin 5 on the etch side of the module. See Figure 1 for pin numbering.

3. Unsolder IC socket A67 from the Disc Control Module. Then remove socket A67 from the module and save to be reinserted into module.

4. Cut etch between chip A67 pin 1 and chip A67 pin 15 on the component side of the module under the IC socket.

5. Reinsert IC socket into location A67 making sure it faces the same way it did before it was removed.

6. Solder all pins to module <u>except</u> pins 1, 5, and 15.

7. Solder wire between chip A67 pin 5 and chip A67 pin 15 on etch side of module.

8. Solder wire between chip A67 pin 1 and chip A1 pin 1 on etch side of module.

9. Reinsert chip A67 into its socket on module making sure it faces the same way it did before it was removed.

10. Place the Disc Control Module into a known good Alto II and recycle the power on the processor. Between recycling, verify machine boots from Disc and from Network.
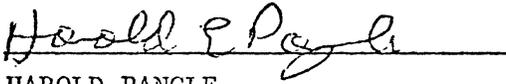
11. Revision level of Disc Control Module should be "G" after E/O has been done.

To see if this E/O has been installed, look for wires added in steps 7 and 8 or a Revision level of "G" or higher.

Any drawing relating to Disc Control Module, Assembly #216389, should be changed as shown in Figure 2.

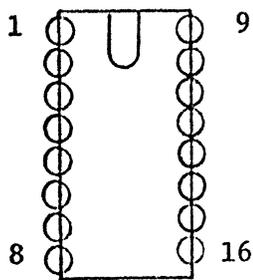If you have any questions and/or problems with this E/O, please call me.

HAROLD PANGLE
DSSS Product Support

HP:blg
PRO 6
Attachments: Figure 1
              Figure 2
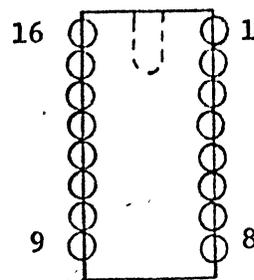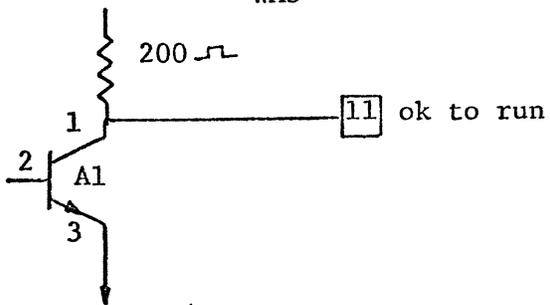
VIEW FROM
TOP OF CHIP

VIEW FROM
BOTTOM OF CHIP

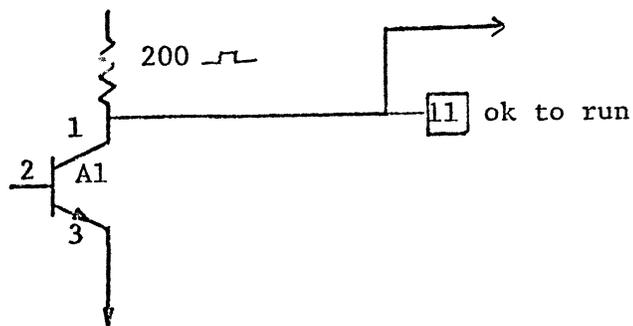1 ⬭   ⬭ 9

16 ⬭   ⬭ 1

8 ⬭   ⬭ 16

9 ⬭   ⬭ 8

FIGURE 1 -- PIN NUMBERING

REVISE SHEET 7

WAS

IS

200 ⎍

1

2   A1

3

11 ok to run

200 ⎍

1

2   A1

3

11 ok to run

REVISE SHEET 18

WAS

IS

PU   5

2

4

67

3

1

PU   5

2

4

67

3

1

ok to run
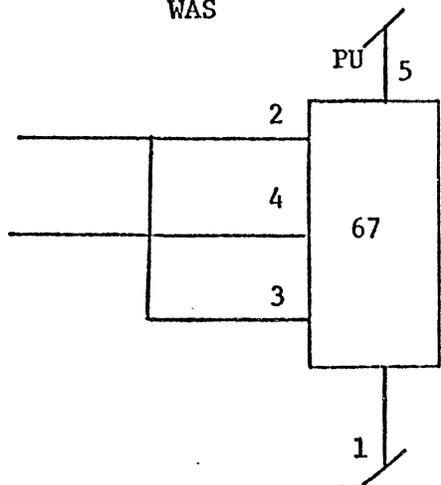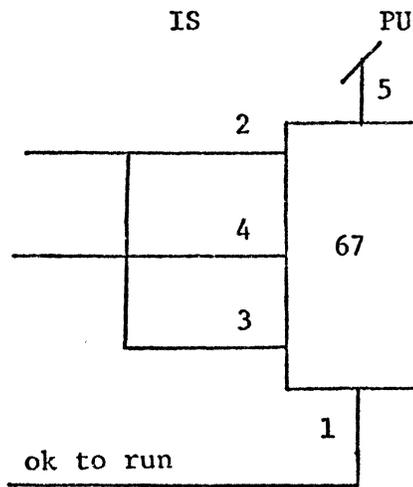
FIGURE 2 -- DRAWING CHANGE

To	From
Distribution	Harold Pangle A1-59/1511 CP-HP-5474

Subject	Date
ALTO BULLETIN (AL10)	September 6, 1978

This bulletin pertains to the Memory Address Interface (AIM) Module, Assembly #216347.

A reliability error was found to occur at a certain time to cause the error status register to be erroneously cleared. This problem shows up as a failure in the AIM Module.

In order to correct the problem, this Engineering Order (E/O) should be installed when the AIM Module, Assembly #216347, fails or at preventative maintenance time or at the time of installation of an Alto II. The E/O should be installed as explained below:

1. Remove jumper wire from between chip A56 pin 1 and chip A42 pin 11 on the etch side of AIM Module. See Figure 1 for chip pin numbering.

2. Add jumper wire from chip A21 pin 11 to chip A56 pin 1.

3. Add jumper wire from chip A59 pin 10 to chip A21 pin 12.

4. Add jumper wire from chip A21 pin 2 to chip A21 pin 13.

5. The AIM Module should be checked out by reinstalling it in a working Alto II. Then run all diagnostics to verify proper operation.

6. The AIM Module, Assembly #216347, should be Revision "E" after E/O is completed.

To check to see if this E/O is installed, verify AIM Module, Assembly #216347, to have Revision "E" or higher and/or the jumper wires added in steps 2, 3, and 4 above.

The drawing changes affected by this E/O are shown in Figure 2.
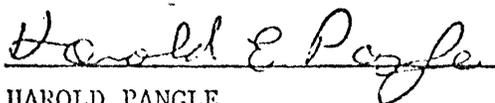
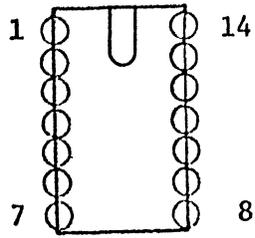If you have any questions and/or problems with this E/O, please call me.

HAROLD PANGLE
DSSS Product Support

HP:blg
PRO 6

Attachments: Figure 1
Figure 2

TOP VIEW
OF CHIP

BOTTOM VIEW
OF CHIP

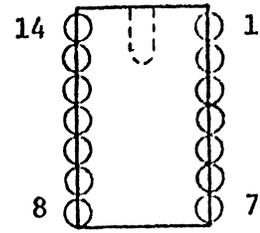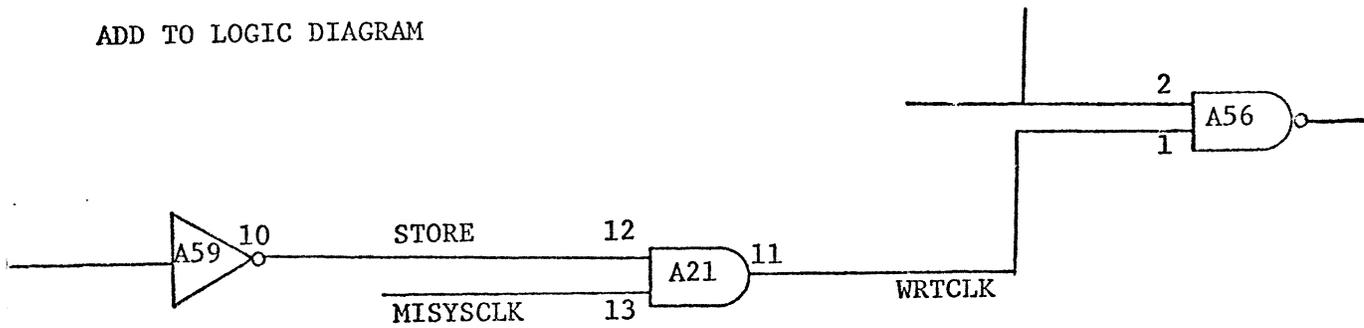FIGURE 1 -- PIN NUMBERING

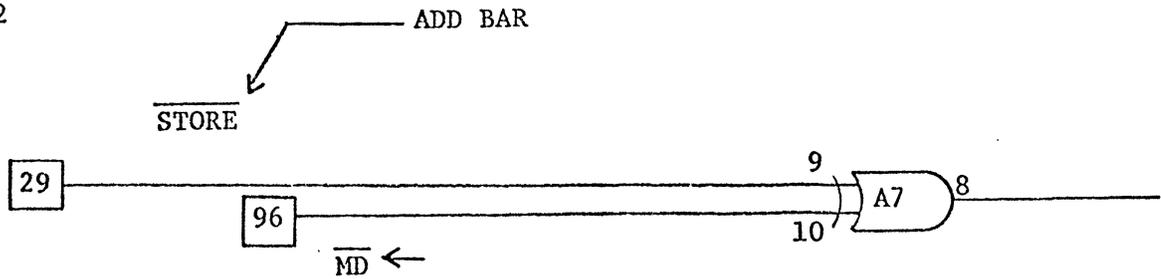SHEET 7

ADD TO LOGIC DIAGRAM

STORE   12

MISYSCLK   13

A21   11

WRTCLK

2

A56

1

10

A59

SHEET 12

ADD BAR

$\overline{\text{STORE}}$

29

96

9

A7

8

$\overline{\text{MD}}$ ←

10

FIGURE 2 -- DRAWING CHANGES

To	From
Distribution	Harold Pangle A1-59/1511 CP-HP-5499

Subject	Date
ALTO BULLETIN (AL11A)	September 21, 1978

This bulletin is a correction to Alto Bulletin AL11. Please correct Step 1 as shown below:

<u>WAS</u>

1. Cut etch between chip A31 pin 15 and chip A31 pin 11 on the etch side of the module. See Figure 1 for pin numbering.

<u>IS</u>

1. On AIM assembly #217173, cut etch between chip A31 pin 15 and chip A31 pin 11 on the etch side of the module. See Figure 1 for pin numbering.

Please add Steps 1A through 1F to the bulletin:

1A. On AIM assembly #216645, remove chip A31 from its socket noting the correct position for re-installation.

1B. Unsolder chip socket A31 from the printed circuit board.

1C. Remove chip socket A31 from the printed circuit board noting the correct position for re-installation.

1D. Cut etch between chip A31 pin 15 and chip A31 pin 1 on component side of module.

1E. Re-insert chip socket into printed circuit board.

1F. Solder all pins of the chip socket to the printed circuit board with the exception of pin 15.

Correct Step 6 to read:

<u>WAS</u>

6. After E/O has been installed, the AIM module, assembly #216645, should be Revision "D" or assembly #217173, should be Revision "B".

<u>IS</u>

6. After E/O has been installed, the AIM module, assembly #216645, should be Revision "E" or assembly #217173, should be Revision "E".

To verify if the E/O is installed, check to see if AIM module, assembly #216645, is Revision "E" or assembly #217173, is Revision "E" or higher and/or on either assembly number, verify the jumper wires added in Steps 2, 3, and 4 on Bulletin AL11.

If you have any questions and/or problems with this bulletin or bulletin AL11, please contact me.
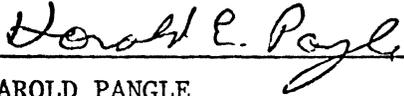
HAROLD PANGLE
DSSS Product Support

HP:blg
PRO 6

To	From
Distribution	Harold Pangle A1-59/1511 CP-HP-5475

Subject	Date
ALTO BULLETIN (AL11)	September 6, 1978

This bulletin pertains to Memory Address Interface (AIM) Module used in the Extended Memory (XM) Alto II. The Assembly #'s are 217173 or 216645.

A design error was found that when using an (XM) Alto II with an Orbit configuration, proper character widths are not produced on the Dover. This was found to be caused by a memory timing discrepancy.

The problem shows up when printing on a Dover as missing scan lines. The scan lines that are there are in no type of pattern.

This design error should be corrected in every (XM) Alto II at the time of an AIM Module failure or preventative maintenance or installation of an (XM) Alto II.

The Engineering Order (E/O) is the same for Assembly #216645 and 217173 so only one procedure is given:

1. Cut etch between chip A31 pin 15 and chip A31 pin 11 on the etch side of the module. See Figure 1 for pin numbering.

2. Add jumper wire from chip A30 pin 12 to chip A41 pin 2 on etch side of module.

3. Add jumper wire from chip A66 pin 1 to chip A41 pin 3 on etch side of module.

4. Add jumper wire from chip A31 pin 15 to chip A41 pin 1 on etch side of module.

5. The AIM Module should be checked by reinserting it into a working (XM) Alto II and verifying all diagnostics run correctly and if applicable, Dover printer output is correct.

6. After E/O has been installed, the AIM Module, Assembly #216645 should be Revision "D" or Assembly #217173 should be Revision "B".

To check to see if this E/O is installed, verify that AIM Module, Assembly #216645 is Revision "D" or higher or Assembly #217173 is Revision "B" or higher and/or on either Assembly #, verify the jumper wires added in steps 2, 3, and 4 above.

The drawing changes are the same for both assembly #'s and are shown in Figure 2.
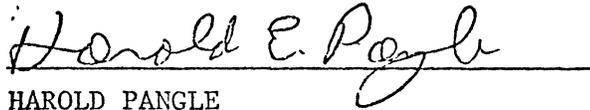
If you have any questions and/or problems with this E/O, please call me.
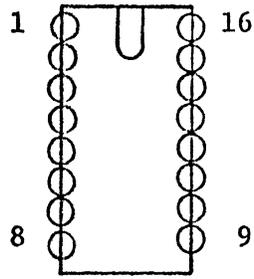

HAROLD PANGLE
DSSS Product Support

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PRO 6
Attachments: Figure 1
               Figure 2

TOP VIEW
OF CHIP

BOTTOM VIEW
OF CHIP
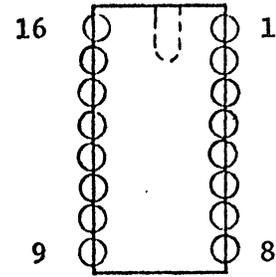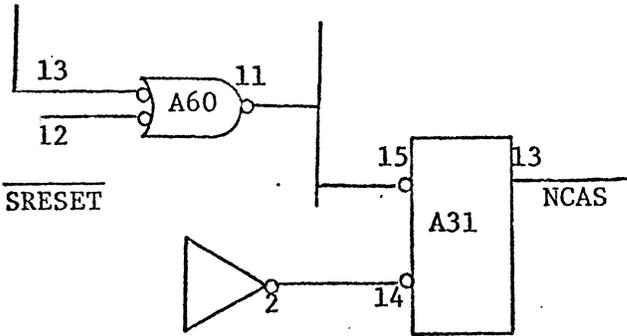
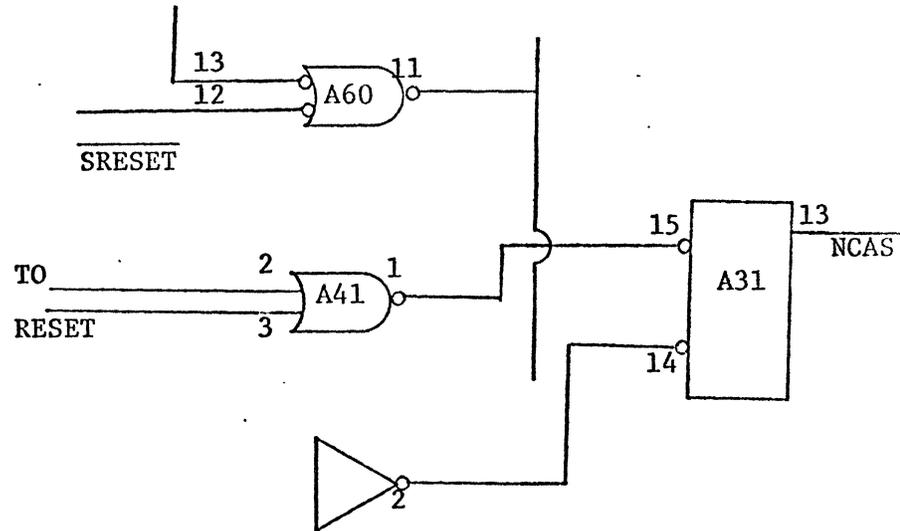FIGURE 1 -- PIN NUMBERING

SHEET 12

WAS

IS

FIGURE 2 -- DRAWING CHANGES

To	From
Distribution	Harold Pangle A1-59/1511 CP-HP-5476

Subject	Date
ALTO BULLETIN (AL12)	September 6, 1978

This bulletin applies to Memory Data Interface (DIM) Module, Assembly #216312. This module is only installed in <u>non-extended memory</u> Alto II's. The only sites that have these are: Boston, Rochester, and El Segundo.

It was found that the DIM Module at certain times was experiencing noise related problems. These problems show up as intermittent failure with the DIM Module.

An Engineering Order (E/O) has come out to correct this problem. This E/O should be done only when the DIM Module, Assembly #216312, experiences a failure. The E/O is explained below:

1. Remove the "74S132" microcircuits that are located in the following locations: A1, A2, A3, A10, A11, A12, A13, A14, A23, and A24. There should be a total of ten. See Figure 1.

2. Install new "74H00" microcircuits into the locations listed in step 1 making sure the microcircuits face the correct way in sockets.

3. Reinsert DIM Module into working Alto II and verify correct operation of all diagnostics.

4. After the E/O is completed, the DIM Module, Assembly #216312, should be Revision "D".

5. The chips removed in step 1 should be returned to me.

6. The chips required in step 2 are only being sent to the sites that have DIM Module, Assembly #216312, installed in <u>non-extended memory</u> Alto II's. These sites are: Boston, Rochester, and El Segundo.

To check if this E/O is installed, verify that DIM Module, Assembly #216312, has a Revision of "D" or higher and/or the microcircuits located in slots: A1, A2, A3, A10, A11, A12, A13, A14, A23, and A24 are "74H00" type.

If you have any questions and/or problems with this E/O, please call me.

HAROLD PANGLE
DSSS Product Support

HP:blg
PRO 6
Attachments: Figure 1
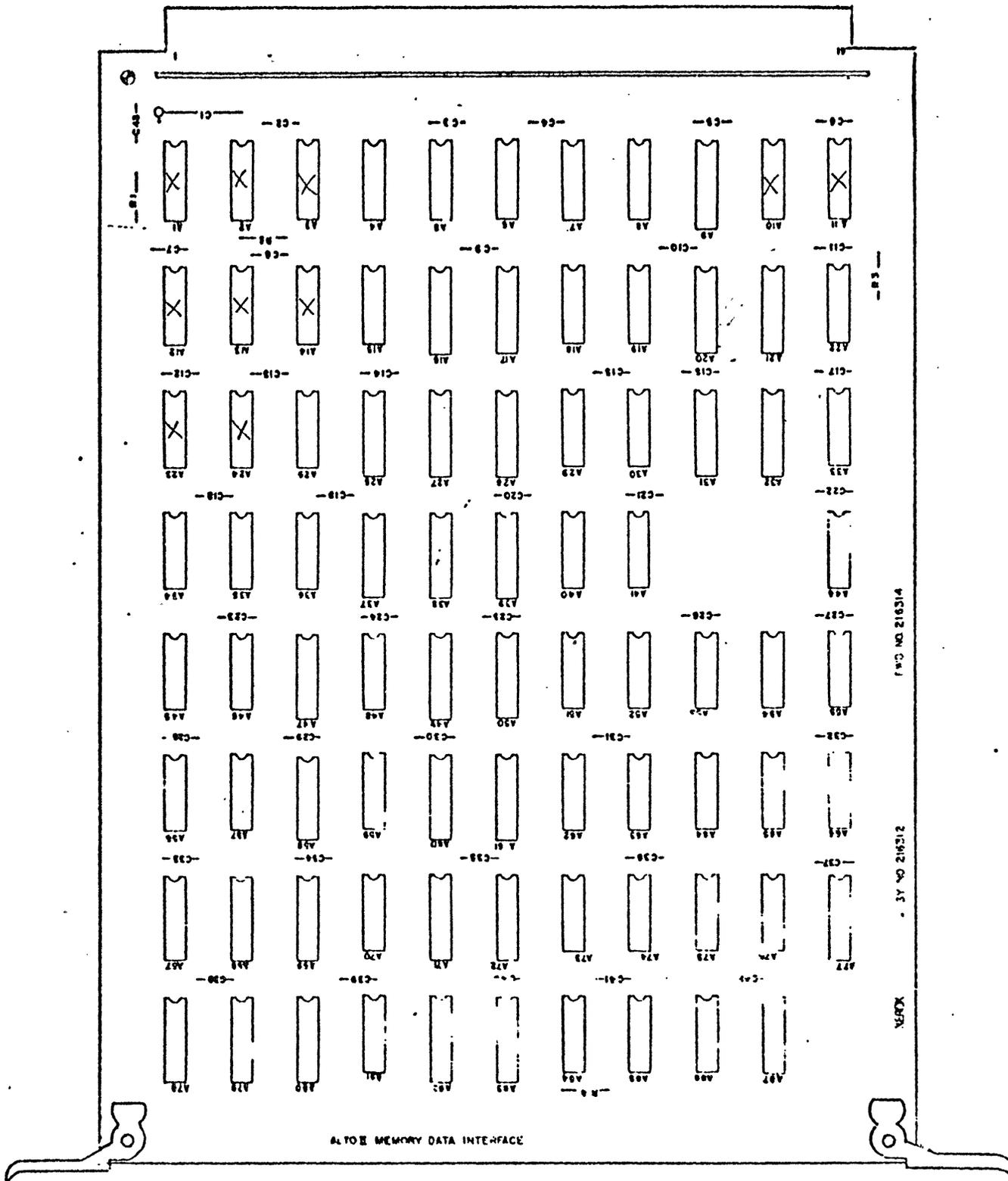
Chip locations marked with (X) are ones referred to in step 1 of
E/O.

FIGURE 1

DIM MODULE CHIP LOCATIONS

To	From
Distribution	Harold Pangle A1-59/1511 CP-HP-5477

Subject	Date
ALTO BULLETIN (AL13)	September 6, 1978

This bulletin relates to the External Ethernet Cable, Assembly #216411. This is the cable which connects the Alto Processor to the Ethernet Transceiver.

The cable consists of six pairs of twisted pair wires. Each twisted pair has a signal wire and its associated ground.

In the manufacturing of the cables, sometimes the signal ground does not get connected with its respective signal wire. This causes Ethernet related problems. They show up as slow transmission/reception using PUPTEST or intermittently not booting from Ethernet.

Manufacturing is using a tighter twist cable to prevent the problem from happening, but there are some cables in the field that could be wired incorrectly. If you experience the above type problems, you should check the cable as stated below:

1. Ohming out the cable will not show up the problem.

2. On one end of the cable, slide cannon shell back away from plug end of cable.

3. Carefully cut the insulation back about 6" to expose the six twisted pairs.

4. Carefully separate the twisted pairs from each other.

5. Verify the wires are inserted into the correct pin number locations using Figure 1.

6. If they are correct on one end, they should be correct on the other end. Likewise, if they are incorrect on one end, the other end will also be incorrect.

7. If the pins are incorrect, reposition the pins to the correct location; be sure to do both ends.

8. If/when the pins are correct, carefully wrap insulation back around twisted pairs and secure insulation using electrical tape.

9. Slide the cannon shell down to the connector and secure it.

10. Test proper operation of cable by placing cable into working
    Alto II system and verify PUPTEST runs correctly.

If you have any questions and/or problems with this, please call me.

HAROLD PANGLE
DSSS Product Support

HP:blg
PRO 6
Attachments: Figure 1

Wire No.	Term	From	To	Term	Wire Type	Notes		Signal
1		P1 - 12	P2 - 9		1	BRN ⎫	TWISTED	SPARE
2		24	1			BLK ⎬	PAIR	SPARE GND
3		13	3			GRN ⎫		X̄D̄ĀT̄Ā .
4		25	4			BLK ⎬		GND
5		16	5			WHT ⎫		TRDATA
6		3	6			BLK ⎬		TRDATA GND
7		8	7			BLU ⎫		TROTHER
8		20	15			BLK ⎬		TROTHER GND
9		11	10			RED ⎫		÷5V
10		23	11			BLK ⎬		÷5V GND
11		19	13			YEL ⎫	TWISTED	÷15V
12		P1 - 6	P2 - 14		1	BLK ⎬	PAIR	÷15V GND
		Alto	Ethernet					
		Processor	Transceiver					
		Connector	Connector					

FIGURE 1

EXTERNAL ETHERNET CABLE

Subject

Date

ALTO BULLETIN (AL14)

September 12, 1978

This bulletin only applies to the Diablo Model 1355 WP printer
and its use on an Alto II extended memory (XM) machine that uses
Bravo software version 8.0 or newer.

A problem has been found that when doing a Bravo hardcopy command
to the Diablo Model 1355 WP printer, the printer does not handle
proportional spacing correctly. This is the only time that the
problem shows up.

An Engineering Order has come out to correct the problem and it
should be installed in all Diablo Model 1355 WP printers that are
connected to Alto II (XM) machines. This should be done at pre-
ventative maintenance, install, or next service call time.

To do the E/O, proceed as follows:

1. Remove power from Diablo Model 1355 WP printer.

2. Remove Diablo Hytype printer adapter cable (Diablo P/N 40508-03)
   from printer.

3. On connector (top) side of adapter cable board, cut etch between
   pin V of Winchester connector and pin 1 of ribbon cable connector.
   See attachment 1.

4. On etch side of board, solder a jumper wire between pin V of
   Winchester connector and pin 10 of ribbon connector. See
   attachment 1.

5. Reinstall printer adapter cable into Diablo Model 1355 WP printer.

6. Re-apply power to printer.

7. Verify proper operation by running all diagnostics and using
   hardcopy command on Bravo.

If you have any questions and/or problems, please contact me.
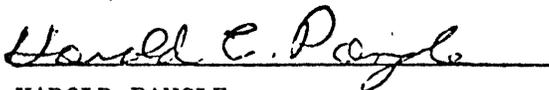
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Attachment

connector side of
board ⟶

pin V

Cut etch as shown
Winchester conn. pin V
to ribbon cable pin 1

1

3 ■   ■ 49
■   ■
2 ■   ■ 50

⟵ etch side of board

V
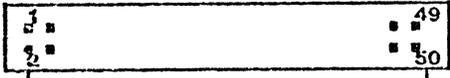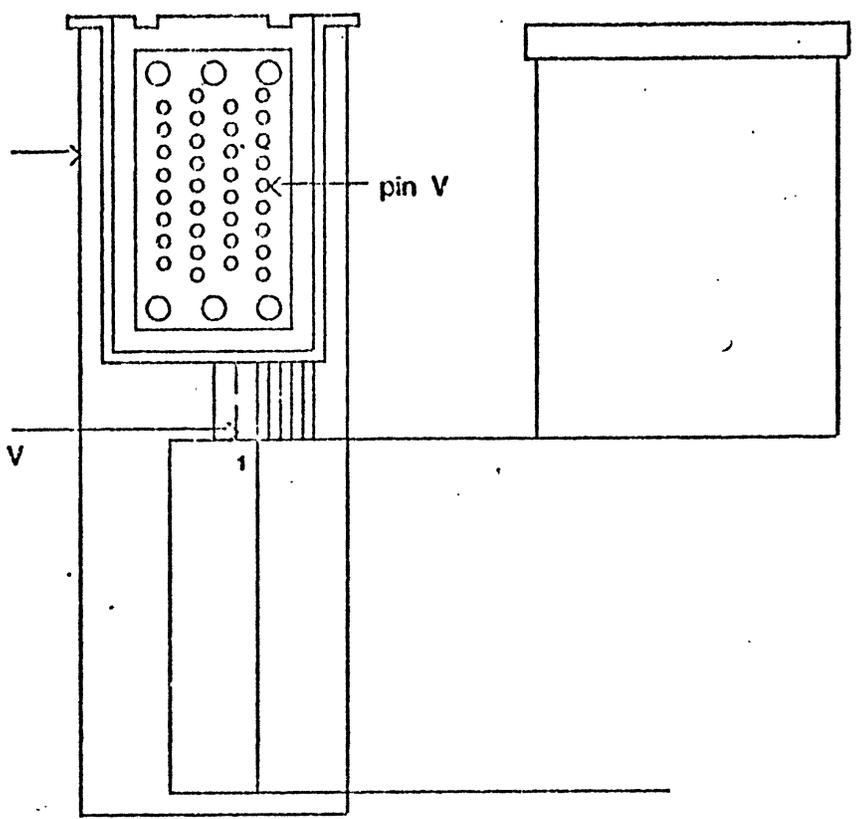
Add insulated wire between
Winchester conn. pin V
and ribbon cable pin 10

o^4
o^8
o^{12}

Note: Modification of the
standard Diablo Hytype
Printer Adapter Cable for
proportional spacing.

Diablo part no. 40508-03
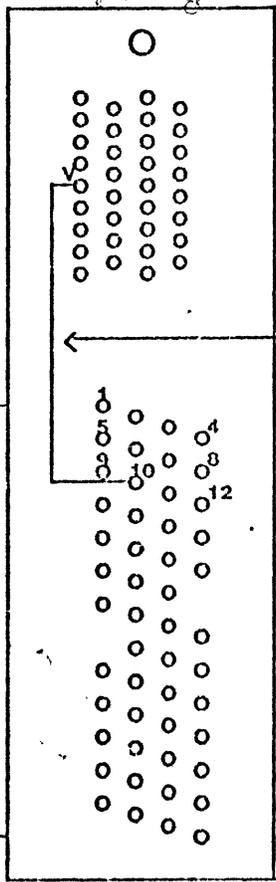
To	From
Distribution	Harold Pangle A1-59/1511 CP-HP-5493

Subject	Date
ALTO BULLETIN (AL15)	September 12, 1978

This bulletin explains how to install the EIA Serial Communications Kit into the Alto II.

The customer should provide the EIA Kit which contains the following items:

- Serial communication control internal cable
- Rear bulkhead connector panel
- Screws to secure internal cable to bulkhead connector panel
- EIA module

The kit should be installed as listed below:

1. Remove A/C power from Alto II processor.

2. Disconnect all external cables from the Alto II processor noting where they go for future use.

3. Disconnect the internal disc cable from the Alto II disc control module.

4. Remove the processor chassis from its cabinet.

5. Remove the two attaching screws and cover plate over the three power supplies (+15V, -15V, +12V) on the right rear side of the processor chassis.

6. Remove the screws securing the three power supplies (+15V, -15V, +12V) to the processor chassis and carefully lay the power supplies on the top of the processor chassis one at a time.

   NOTE: It is not necessary to disconnect the wiring associated with these power supplies if you are careful to place no excessive stresses on it. This is only a temporary position for the supplies.

7. Install the serial communication control internal cable. The internal cable goes in the existing internal cable lay in the same manner as the other cables already there and it will be the bottom cable; that is, the one closest to the chassis floor plan. When in, the serial communication control internal cable should loop right around the outside of the cables going to the AIM module. The 50-pin card-edge connector should be available to slot 6.

8. Disconnect the A/C power cord from terminal board TB1, marking the wires for re-installation.

9. Remove the four screws holding the rear bulkhead panel to the processor frame.

10. Remove the plug mounting hardware securing the plugs to the bulkhead panel.

11. Remove the A/C power cable and strain relief bushing from the old bulkhead panel and install them in the new bulkhead panel provided by the customer.

12. Remount the plugs to the appropriately marked positions on the new bulkhead panel using the hardware removed in step 10.

13. Mount the 25-pin connectors for the serial communication control internal cable in a convenient location in the new bulkhead panel using the hardware provided by the customer.

14. Secure the rear bulkhead panel to the processor frame using the screws removed in step 9.

15. Reconnect the A/C power cable to terminal board TB1.

16. Re-install the three power supplies to the processor frame.

17. Re-install the power supplies cover that was removed in step 5.

18. Modify the backplane according to steps 19-28. These changes are the same for a normal Alto II, Alto II with extended memory, or an Alto II with orbit backplane.

19. Remove wire from J5 Pin 1 to J6 Pin 1.

20. Remove wire from J6 Pin 1 to J7 Pin 1.

21. Add wire from J5 Pin 1 to J6 Pin 2.

22. Add wire from J6 Pin 2 to J7 Pin 1.

23. Add wire from J15 Pin 1 to J6 Pin 1.

NOTE: This is a voltage wire and should be AWG #26 or use two AWG #30 wires.

24. Add wire from J15 Pin 62 to J6 Pin 62.

NOTE: This is a voltage wire and should be AWG #26 or use two AWG #30 wires.

25. Add wire from J6 Pin 53 to J6 Pin 54.

26. Add wire from J6 Pin 115 to J15 Pin 54.

27. Add wire from J15 Pin 115 to J16 Pin 54.

28. Add wire from J10 Pin 131 to J11 Pin 109.

29. Insure that the red address switch on the EIA module is set to address 0 (1, 2, and 3 open).

30. Plug the EIA module into slot J6.

31. Connect internal cable to module. The cable must come out the top of the plug similar to the other Alto II internal cables.

32. Additional EIA modules may be installed in slots J15 and then J16.

    NOTE: Subsequent EIA modules should be addressed 1 and 2 (octal).

33. Return processor chassis to its cabinet.

34. Reconnect disc drive cable to disc control module.

35. Plug A/C power cord into wall outlet.

36. Verify correct A/C polarity.

37. Reconnect all external cables to rear bulkhead connector panel.

38. Verify proper operation of all diagnostics and software.

    NOTE: MADTEST fails during subtest "S DISPATCH". If you skip S DISPATCH subtest, MADTEST will run ok.

    NOTE: At the present time, there aren't any diagnostics to check out the EIA module or interface.

39. Mark the processor chassis as having EIA modification for slots J6, J15, and J16.

The EIA module is designed to communicate with either data terminal equipment (DTE) or data communication equipment (DCE) over a standard EIA RS-232-C 12-wire interface.

If you have any questions/problems with this bulletin, please contact me.
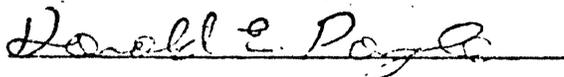
HAROLD PANGLE
DSSS Product Support

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PRO 6

Inter-Office Memorandum

To	Dover C.E.s	**Date**	November 28, 1978
From	George Carlsen	**Location**	Palo Alto
Subject	Orbit Test Indications AL 16	**Organization**	DSD

XEROX

When running orbit test #14 on a Dover and you get LS-27 jam indication, you should also check LS-1 condition.

These switches are in series with each other and the software cannot differentiate between the two.

LS-1 is also in series with LS-3, but since LS-27 is checked first, a bad LS-1 will generally show up as a LS-27 problem rather than a LS-3 problem.

Thanks to Don Kelly/Dave Evans (El Segundo) for this tip.

PRO 6

Inter-Office Memorandum

XEROX

To	Dover C.E.s	Date	November 28, 1978
From	George Carlsen	Location	Palo Alto
Subject	Loss of Scan Lines On Third Page of a Document AL 17	Organization	DSD

If you experience a loss of scan lines approximately two inches in from the lead edge of the third page of a document, this may be caused by vibrations from the pressure roll coming up.   To reduce these vibrations place a hose clamp (26P1130) on the hose between the pressure disk and the pressure disk solenoid valve (L5). Tighten the clamp enough so that the pressure roll comes up softly rather than with a bang.

After installing the clamp, run copies and make sure that the pressure roll is all the way up before the first sheet reaches the fuser. If it isn't up in time, loosen the clamp and try again.

Thanks to Joe Kennedy (Washington, D.C.) for identifying and coming up with the fix.

PRO 6

XEROX

December 5, 1978

To: Dover C.E.s

From: George Carlsen

Subject: Switch Failures
AL-18

Due to the high failure rate of LS-1 (600S418) and LS-27 (110S506), it is recommended that when they fail they be replaced with gold contact-type switches from the CFP.

	Old (7000)	New (CFP)
LS-1	600S418	100S80126
LS-27/8	110S506	110S80132

The microswitches (cycle control, paper tray) can be replaced with 110P80097 if necessary.

LS-3 can be replaced with a 110S80262, but the wires on the switch will have to be changed to a new configuration.

Thanks to Don Kelly and Dave Evans (El Segundo) for the tip.

PRO 6

XEROX

Internal Memo

To

Distribution

From

Harold Pangle

PSD Service
I9-13/Ext. 7903

Subject

ALTO BULLETIN (AL32)

Date

February 5, 1980

This bulletin pertains to the disc control module, assembly #216389, when used with a dual disc drive Alto II.

Phil Hoffmann found a problem while he was adding a second Diablo Model 31 Disc Drive to the Alto II System. There could be a timing problem which shows up as disc read/write errors. Phil found the problem to be on the disc control module, assembly #216389, chip A-59 (74H04). It seems it is possible that chip A-59 is too slow. Phil was able to correct the problem by replacing chip A-59.

Next time you have read/write errors on a dual disc drive Alto II, remember this bulletin.

A thank you goes out to Phil Hoffmann of Foster City.

HP:blg

XEROX

Internal Memo

To

Distribution

From

Harold Pangle

PSD Service
I9-13/Ext. 7903

Subject

ALTO BULLETIN (AL33)

Date

February 5, 1980

This bulletin pertains to the 2K control module used in the extended memory (XM) Alto II. The assembly number is 217175.

Phil Hoffmann found a problem while he was adding XMESA5.0 microcode (in PROMS) to the "2nd K" portion of the 2K control module. It seems that after he installed the XMESA5.0 PROMS and switching chip U51 so that "SW2" was in U51's socket, the Alto II was unable to run XMESA5.0 programs.

The problem was found to be the wrong type chip in location U-50. Location U-50 should have a 74S153 type chip in it; Phil found a 74S157 type chip located there. These ARE NOT interchangeable. The 2K control module should be checked for the correct chip type in location U-50 (74S153) during the next preventative maintenance time or when the module fails.

If you have any questions and/or problems with this bulletin, please contact me.

A thank you goes out to Phil Hoffmann of Foster City.

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