

FIELD ENGINEERING BULLETIN

MODEL ADO
BULLETIN NO. 61106 SHEET 1 OF 5
DATE 5/86 BK-8605-07

ECL CLOCK DISTRIBUTION IMPROVEMENTS (DIGITAL MOTHERBOARD ADO)

*Completed gwd
7-30-86*

I. APPLICABILITY

All ADO's 2000/3000.

II. PURPOSE

1. To improve the ECL, 1X clock distribution on the motherboard.
2. To improve the operation of the Output Control PWA.

III. DISCUSSION

Minor wiring changes are made on the motherboard which greatly improves the operation of the IVP PWA and the Output Control PWA. These wiring changes will also improve a possible crosstalk problem when the IVP is placed on an extender.

Additionally, prior to this modification, placing the Output Control on the extender can cause the Video Output to exhibit a flashing problem. Sometimes this problem shows up even if the board is not on the extender. This fault is more pronounced if the ADO is equipped with a digimatte PWA. The Output Video will also appear to have a pink haze in addition to the flashing video.

IV. PARTS REQUIRED

Parts required for this update may be purchased through Ampex. Installation assistance can be obtained through your local Ampex Regional Office at current Ampex Field Engineering rates.

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**ECL CLOCK DISTRIBUTION IMPROVEMENTS
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<u>Amepx Part Number</u>	<u>Description</u>	<u>Quantity</u>
615-095	Single Kynar Wire 30 AWG	1 Ft.
636-276	Twisted Solid Kynar Wire	5 Ft.

V. PROCEDURE:

A. MOTHERBOARD MODIFICATION:

1. At the back of the ADO, open the 5V Power Supply door to gain access to the motherboard and perform the following modification:
2. Remove the 5 volt Power Harness from the motherboard and place it to the side of the motherboard.
3. Remove the ground buss from the motherboard.
4. On the motherboard remove existing wires per the following table:

<u>FROM</u>	<u>TO</u>	
-----	-----	
XA15 69	XA18 11	
XA15 70	XA18 12	
XA15 75	XA11 109	CAUTION: Remove the wires by unwinding the ends off the pins, and cut both ends off before removing it.
XA15 76	XA11 110	
XA1 11	XA11 105	
XA1 12	XA11 106	
XA1 22	XA7 9	
XA1 23	XA7 10	

5. Install twisted pair of solid wire per the following table using a wire wrap tool or equivalent.

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FROM	TO
-----	-----
✓XA15 69 3	✓XA18 12
✓XA15 70	✓XA18 11
✓XA15 75 4	✓XA11 110
✓XA15 76	✓XA11 109
✓XA15 89 5	✓XA11 105
✓XA15 90	✓XA11 106
✓XA15 9 6	✓XA7 9
✓XA15 10	✓XA7 10

6. Install the ground buss bar in the reverse order of removal.
7. Install the Power Supply Harness to the motherboard buss bars. Insure that the correct polarity is maintained. Also insure that the harness screws are as tight as possible.

NOTE: Loose screws can cause a potential fire problem.

8. This completes the motherboard modifications.

V. PROCEDURE:

B. OUTPUT CONTROL PWA MODIFICATION.

- ✓1. Remove the Output Control PWA from the digital chassis.
- ✓2. Cut the trace shown in Figure 2.
- ✓3. Install a 30 AWG Kynar wire from I.C. 7G Pin 1 to I.C. 7G Pin 12.
- ✓4. Install a 30 AWG Kynar wire from I.C. 7G Pin 12 to I.C. 7G Pin 11.
- ✓5. Install a 30 AWG Kynar wire from I.C. 7G Pin 13 to I.C. 7F Pin 3.
- ✓6. Install a 30 AWG Kynar wire from I.C. 2D Pin 2 to I.C. 2D Pin 7. See Figure 1.

ADD

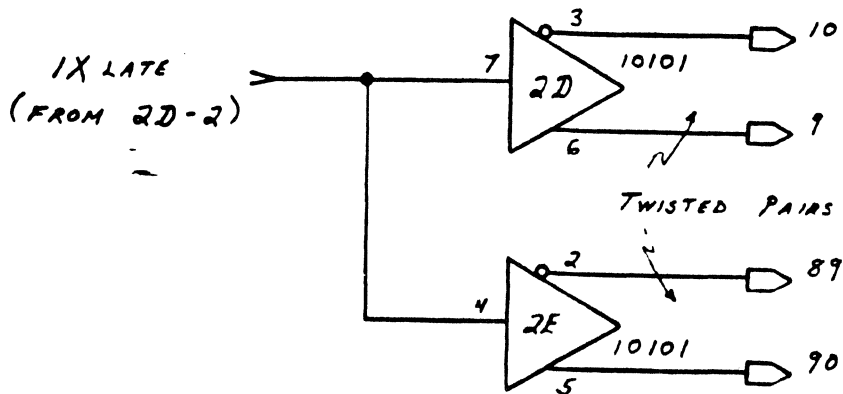
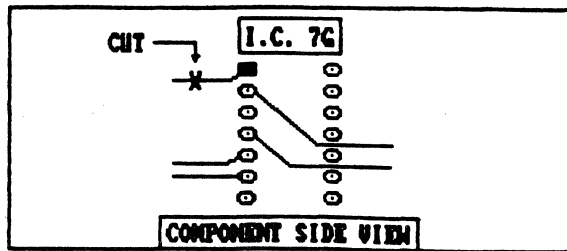
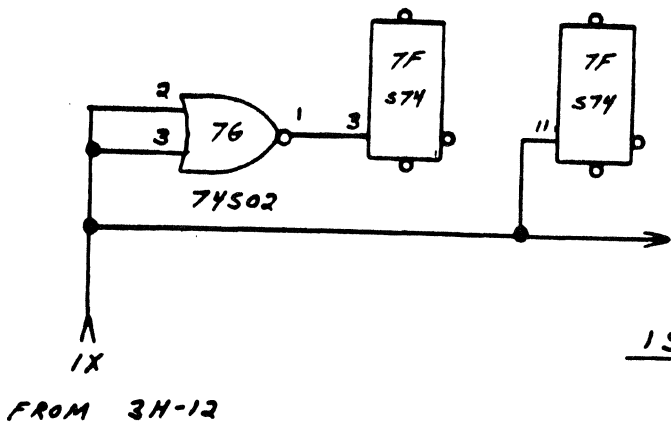


FIGURE 1

WAS



IS

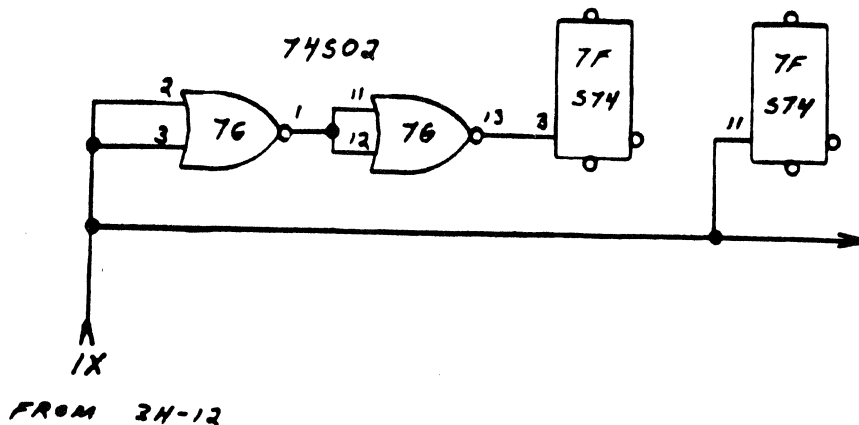


FIGURE 2

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- ✓ 7. Install a 30 AWG Kynar wire from I.C. 2D Pin 7 to I.C. 2E Pin 4.
- ✓ 8. Install one wire of a 30 AWG Kynar twisted pair to I.C. 2D Pin 3.
- ✓ 9. Install the other wire of the twisted pair to I.C. 2D Pin 6.
10. Install the other end of the wire coming from I.C. 2D Pin 3 to finger #10 at the edge of the board.

NOTE: You will have to run the wire through a feed-through near the finger.
11. Install the other end of the wire coming from I.C. 2D Pin 6 to finger #9 at the edge of the board.
12. Install one wire of a 30 AWG Kynar twisted pair to I.C. 2E Pin 2.
13. Install the other wire of the twisted pair to I.C. 2E Pin 5.
14. Install the other end of the wire attached to I.C. 2E Pin 2 to finger #89 at the edge of the board.
15. Install the other end of the wire coming for I.C. 2E Pin 5 to finger #90 at the edge of the board.

NOTE: You will have to run the wire through a feed-through near the finger.

AMPEX

