

OBERHEIM ELECTRONICS, INC.
ENGINEERING CHANGE ORDER

ECO NO.
201

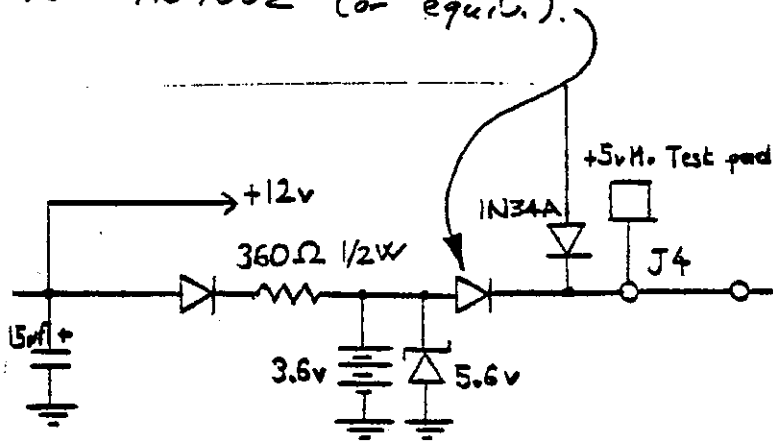
PRODUCT AFFECTED

DSX

DRAWINGS AFFECTED

DESCRIPTION OF CHANGE

Change 1N4148 diode in battery backup circuit to 1N4002 (or equiv.).



REASON FOR CHANGE

Occasionally the 1N4148 opens & then battery backup does not work.

EFFECTIVITY

- FUTURE PRODUCTION ONLY
- RETROFIT UNITS IN PRODUCTION AND INVENTORY
- RETROFIT UNITS IN FIELD
- DRAWING CORRECTION ONLY; HARDWARE NOT AFFECTED
- _____

WRITTEN BY

DATE

DES

1-4-82

APPROVED BY

DATE

DES

1-4-82

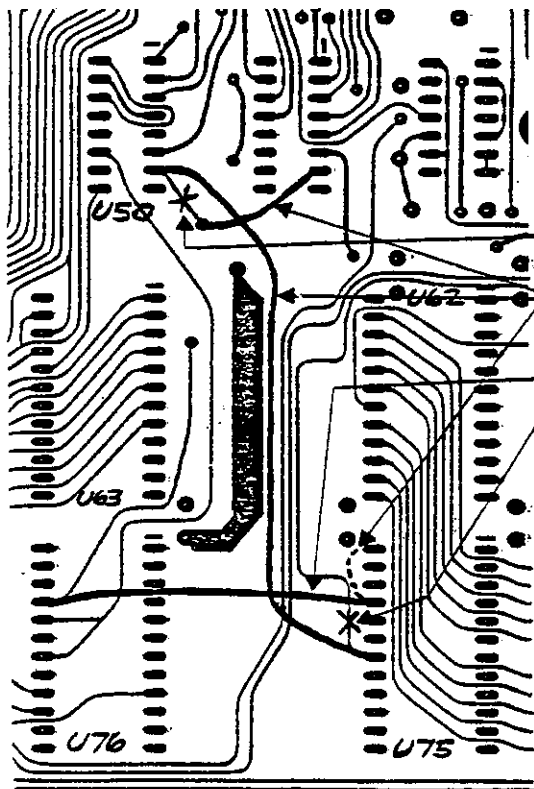
OBERHEIM ELECTRONICS, INC.
ENGINEERING CHANGE ORDER

ECO NO.
202
(2 SHEETS)

PRODUCT AFFECTED
DSX

DRAWINGS AFFECTED
SCHEMATIC
PARTS LIST

DESCRIPTION OF CHANGE



1. REMOVE DSX PROCESSOR BOARD BY DISCONNECTING CONNECTORS A THROUGH E AND UNSCREWING THE TEN SCREWS.
2. REMOVE JUMPER BETWEEN U75 PIN 24 AND U75 PIN 21 ON BACK OF BOARD.
3. CUT TRACE BETWEEN U75 PIN 18 AND U46 PIN 9 ON BACK OF BOARD.
4. CUT TRACE BETWEEN U50 PIN 7 AND FIRST FEED-THROUGH ON BACK OF BOARD.
5. ADD JUMPER BETWEEN U50 PIN 7 AND U75 PIN 18 ON BACK OF BOARD.
6. ADD JUMPER BETWEEN U75 PIN 21 AND U76 PIN 21 ON BACK OF BOARD.
7. ADD JUMPER BETWEEN U49 PIN 7 AND FEED-THROUGH ON BACK OF BOARD.
8. PLACE BOARD BACK IN CHASSIS AND RECONNECT ALL CONNECTORS AND SCREWS.
9. REPLACE E-PROMS:
E-PROM 'C0' GOES INTO U76
E-PROM 'C1' GOES INTO U63
E-PROM 'C2' GOES INTO U75

- BACK OF PROCESSOR BOARD -

REASON FOR CHANGE

TO ALLOW FOR EXTRA STORAGE OF NEW SOFTWARE BY CHANGING U75 FROM A 2716 E-PROM TO A 2732 E-PROM.

EFFECTIVITY

- FUTURE PRODUCTION ONLY
- RETROFIT UNITS IN PRODUCTION AND INVENTORY
- RETROFIT UNITS IN FIELD
- DRAWING CORRECTION ONLY; HARDWARE NOT AFFECTED
- _____

WRITTEN BY

DATE

Wm B C 2/10/82

APPROVED BY

DATE

DEB 2.32

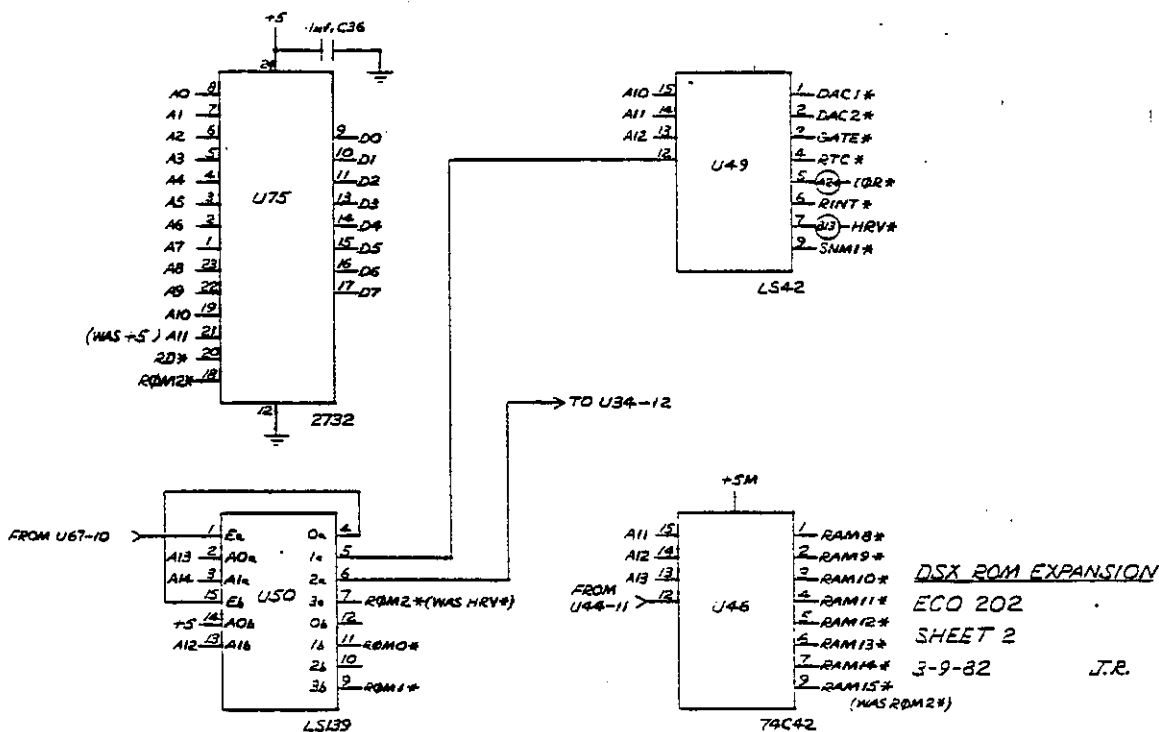
OBERHEIM ELECTRONICS, INC.
ENGINEERING CHANGE ORDER

ECO NO.
202
PAGE 2

PRODUCT AFFECTED

DRAWINGS AFFECTED

DESCRIPTION OF CHANGE



REASON FOR CHANGE

EFFECTIVITY

- FUTURE PRODUCTION ONLY
- RETROFIT UNITS IN PRODUCTION AND INVENTORY
- RETROFIT UNITS IN FIELD
- DRAWING CORRECTION ONLY; HARDWARE NOT AFFECTED
- _____

WRITTEN BY

DATE

[Handwritten Signature]

APPROVED BY

DATE

[Handwritten Signature]

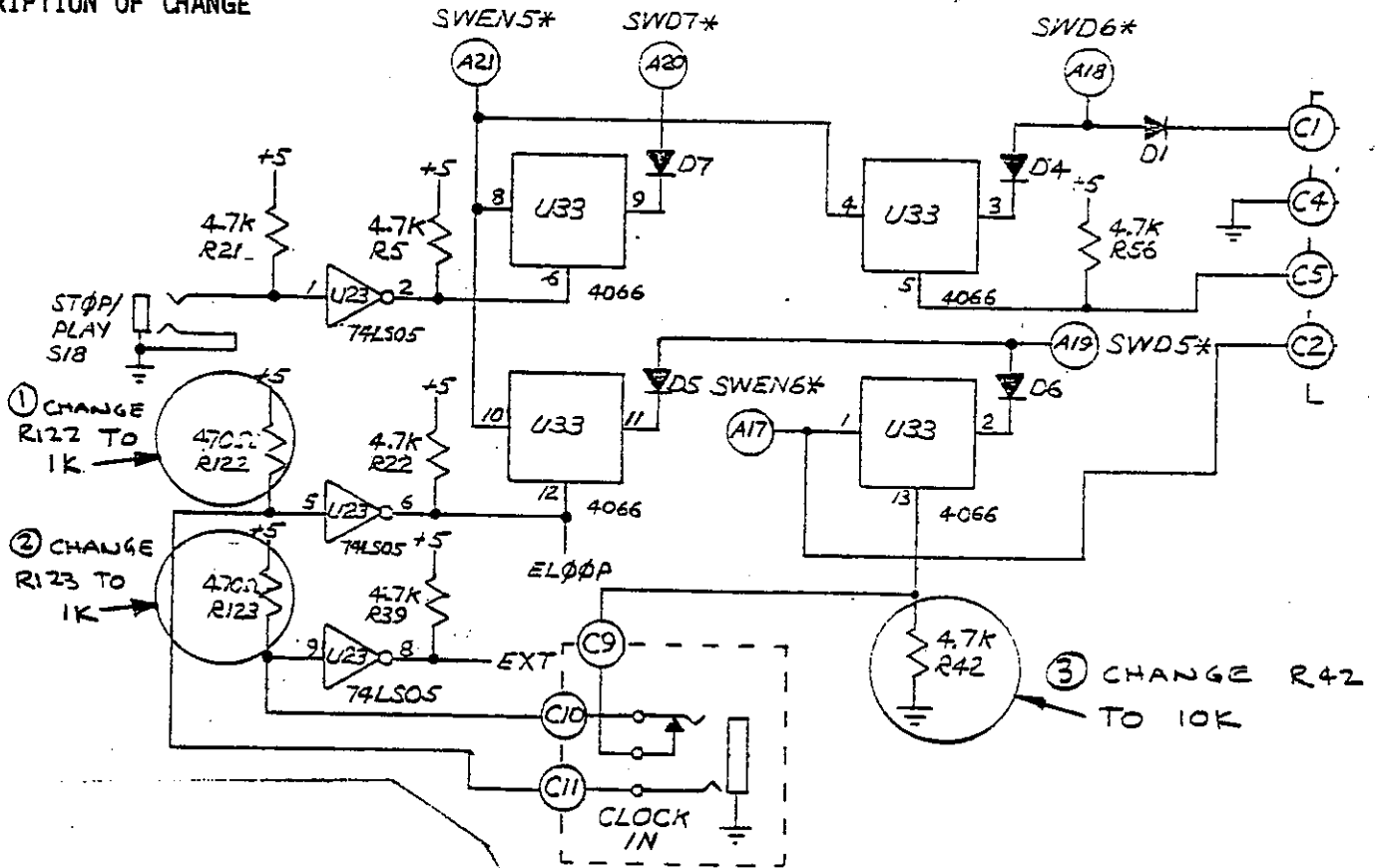
PRODUCT AFFECTED

DSX

DRAWINGS AFFECTED

SCHEMATIC
PARTS LAYOUT
PARTS LIST

DESCRIPTION OF CHANGE



REASON FOR CHANGE

TO REDUCE CLOCK NOISE WHEN DSX IS SLAVED TO DMX

EFFECTIVITY

- FUTURE PRODUCTION ONLY
- RETROFIT UNITS IN PRODUCTION AND INVENTORY
- RETROFIT UNITS IN FIELD
- DRAWING CORRECTION ONLY; HARDWARE NOT AFFECTED
- _____

WRITTEN BY

DATE

M. B. K. 2/15/82

APPROVED BY

DATE

D. S. E. 2/15/82

PRODUCT AFFECTED

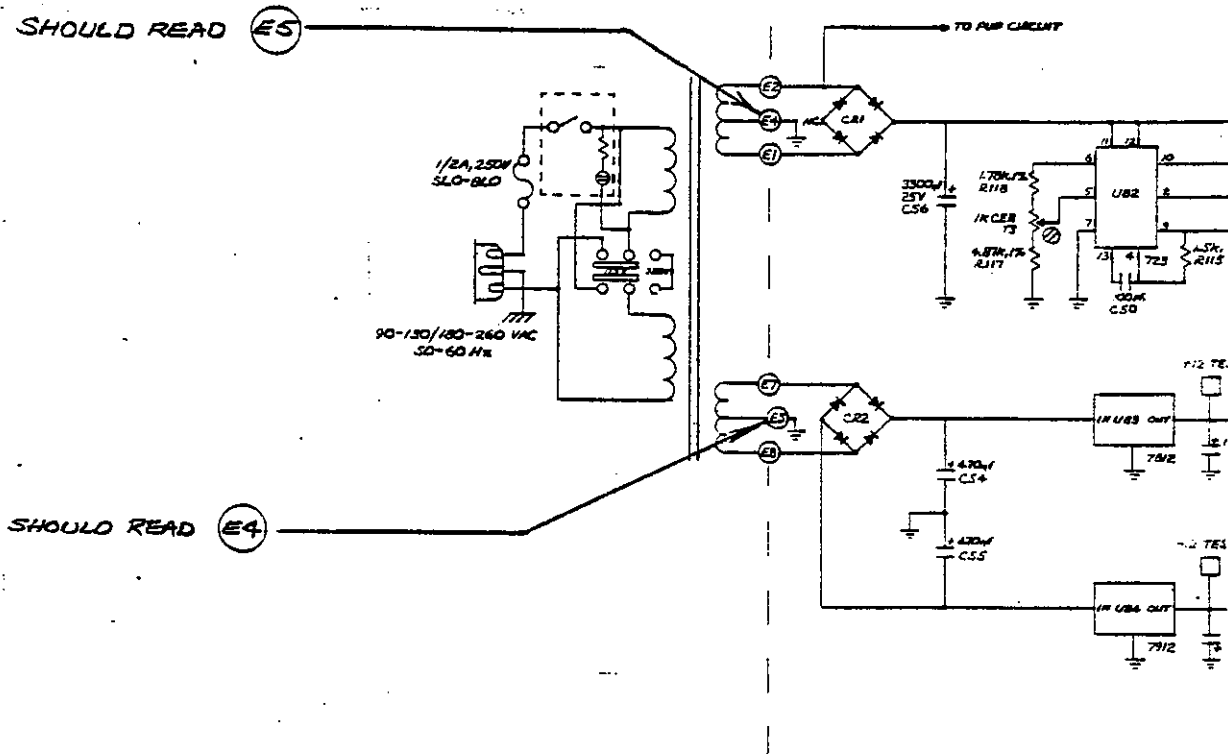
DSX

DRAWINGS AFFECTED

NO ASSEMBLIES AFFECTED.

SCHEMATIC 1519 A SHEET 3 OF 3

DESCRIPTION OF CHANGE



REASON FOR CHANGE

PIN NUMBERS INCORRECT. SCHEMATIC ONLY.

EFFECTIVITY

- FUTURE PRODUCTION ONLY
- RETROFIT UNITS IN PRODUCTION AND INVENTORY
- RETROFIT UNITS IN FIELD
- DRAWING CORRECTION ONLY; HARDWARE NOT AFFECTED
-

WRITTEN BY

ANNE 5-10-82

APPROVED BY

[Signature] 5-14-82

OBERHEIM ELECTRONICS, INC.
ENGINEERING CHANGE ORDER

ECO NO.
205
PAGE 1

PRODUCT AFFECTED

DSX

DRAWINGS AFFECTED

NONE

DESCRIPTION OF CHANGE

REPLACE 3 2732 EPROMS LABELED C Φ , C1, AND C2,
LOCATED IN SOCKETS U76, U63, AND U75, RESPECTIVELY,
WITH NEW EPROMS LABELED CA Φ , CA1, AND CA2.

THE "C" EPROMS ARE SOFTWARE VERSION 2.00,
THE "CA" EPROMS ARE SOFTWARE VERSION 2.10.

REASON FOR CHANGE

SOFTWARE IMPROVEMENTS DETAILED ON PAGE 2..

EFFECTIVITY

- FUTURE PRODUCTION ONLY
- RETROFIT UNITS IN PRODUCTION AND INVENTORY
- RETROFIT UNITS IN FIELD
- DRAWING CORRECTION ONLY; HARDWARE NOT AFFECTED
- _____

WRITTEN BY

DATE

Marcus Ryle 2/18/82

APPROVED BY

DATE

AG 7/9/82

DESCRIPTION OF SOFTWARE CHANGES:

- 1) Previously, the External Clock input required a stereo phone jack in order to remotely start and stop the DSX, and using a mono jack would defeat this feature. Revision 2.10 reverses this so that with a mono jack the DSX can be remotely started and stopped.
- 2) Sequencers with 6000 note capabilities using version 2.00 software would not allow merges to be recorded passed 3000 notes. This has been corrected in version 2.10.
- 3) In version 2.00, if a sequence was inserted into the middle of a merge, and memory ran out when that sequence was inserted, all of memory could be erased. This has been corrected in version 2.10.
- 4) In version 2.10, all playtracks will automatically turn on at the beginning of the new sequence if a new sequence is selected while playing another sequence.
- 5) In version 2.00, If track zero has been recorded, and it is turned off and then back on again while playing a sequence, the sequence will not loop. This has been corrected in version 2.10.
- 6) In version 2.00, If a CV was recorded in a quantized mode, and three or more notes were played during one quantized step (e.g., three sixteenth notes played in quantized quarter note mode) the extra notes may be played on the OB-Xa instead of the CVs. This has been corrected in version 2.10.

ENGINEERING CHANGE ORDER

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Page

PRODUCT AFFECTED

DSX

DRAWINGS AFFECTED

FAB DRAWING 1547
ARTWORK 1545, 1546
ASSEMBLY 720063

PROCESSOR ECARD.

"
"

DESCRIPTION OF CHANGE

FAB DRAWING WAS 1547B IS 1547C.
ARTWORK WAS 1545B IS 1545C.
ARTWORK WAS 1546B IS 1546C.

REASON FOR CHANGE

NEW ARTWORK TO INCORPORATE ALL CHANGES.

ACTIVITY

- FUTURE PRODUCTION ONLY
- RETROFIT UNITS IN PRODUCTION AND INVENTORY
- RETROFIT UNITS IN FIELD
- DRAWING CORRECTION ONLY; HARDWARE NOT AFFECTED
-

WRITTEN BY

ANNE

7-1-82

APPROVED BY

7-1-82

DA

DA

PRODUCT AFFECTED

DSX

DRAWINGS AFFECTED

NONE

DESCRIPTION OF CHANGE

REPLACE 3 2732 EPROMS LABELED CA0, CA1, AND CA2, LOCATED IN SOCKETS U76, U63, AND U75, RESPECTIVELY, WITH NEW EPROMS LABELED CD0, CD1, AND CD2.

THE "CA" EPROMS ARE SOFTWARE VERSION 2.10,
THE "CD" EPROMS ARE SOFTWARE VERSION 2.22.

REASON FOR CHANGE

SOFTWARE IMPROVEMENTS DETAILED ON PAGE 2

EFFECTIVITY

- FUTURE PRODUCTION ONLY
- RETROFIT UNITS IN PRODUCTION AND INVENTORY
- RETROFIT UNITS IN FIELD
- DRAWING CORRECTION ONLY; HARDWARE NOT AFFECTED
- _____

WRITTEN BY

[Signature]

DATE

3/12/82

APPROVED BY

[Signature]

DATE

3/12/82

DESCRIPTION OF SOFTWARE CHANGES:

1) The cassette interface PLAY and CHECK routines now have the ability to invert the incoming data so as to allow for the use of the many cassette players on the market whose output is inverted from their input. This feature is accessed as follows:

- a. Turn the cassette enable on.
- b. Connect tape recorder.
- c. Press PLAY or CHECK; The display should read "START DATA TAPE".
- d. Press play on the tape recorder.
- e. If the display says "ERROR IN DATA" or doesn't leave the "PLAYING DATA" mode, your cassette player may be an inverting one. If necessary, turn the DSX off and then on again, and then repeat step c.
- g. BEFORE starting the tape recorder, press the STEP button. The step light should come on. This indicates that the DSX will invert the data coming in. As long as the display reads "START DATA TAPE", the STEP button can be turned on or off. Once the tape recorder has been started and the display reads "PLAYING DATA" the STEP button will stay in its currently selected position.
- h. If this mode of operation works for your tape recorder, always use this mode when playing back data.

2) In the cassette mode of the previous version of software, if the PLAY button was pressed after loading in a tape using RECORD, the DSX would only output part or none at all of the newly loaded data unless the cassette mode was left and then entered again. Version 2.22 fixes this problem.

3) In version 2.22, The "SELECT VOICES" mode of the SEQUENCE button will be skipped if no record track has been selected. This has been done to eliminate possible confusion since there is no need to select voices if no track is selected.

4) In version 2.10, if track zero ended before any other tracks, a sequence would not loop. This has been corrected in version 2.22.

5) In version 2.22, The playtracks will be left in their current position if a new sequence is started while displaying the selected playtracks.

6) Sometimes, when turning off an OB-Xa, it is possible for the DSX to drop memory if the OB-Xa is turned off while the DSX is on and is connected to the OB-Xa. Version 2.22 allows the OB-Xa to be turned off without disturbing the memory in the DSX.

OBERHEIM ELECTRONICS, INC.
ENGINEERING CHANGE ORDER

ECO NO.
208

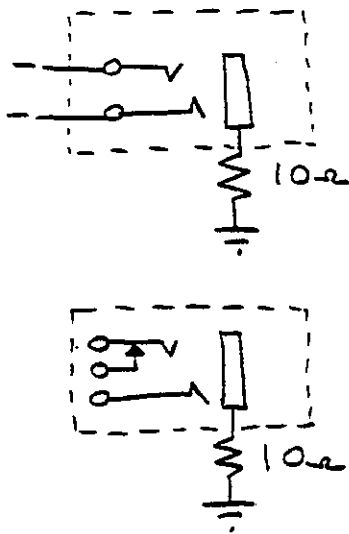
PRODUCT AFFECTED

DSX

DRAWINGS AFFECTED

1593A

DESCRIPTION OF CHANGE



- 1) REPLACE JACKS WITH INSULATED TYPES (SWITCHCRAFT N-114B)
- 2) ADD 10 Ω RESISTORS TO GROUND

REASON FOR CHANGE

ELIMINATE GROUND LOOPS

EFFECTIVITY

- FUTURE PRODUCTION ONLY
- RETROFIT UNITS IN PRODUCTION AND INVENTORY
- RETROFIT UNITS IN FIELD
- DRAWING CORRECTION ONLY; HARDWARE NOT AFFECTED
- _____

WRITTEN BY

DATE

APPROVED BY

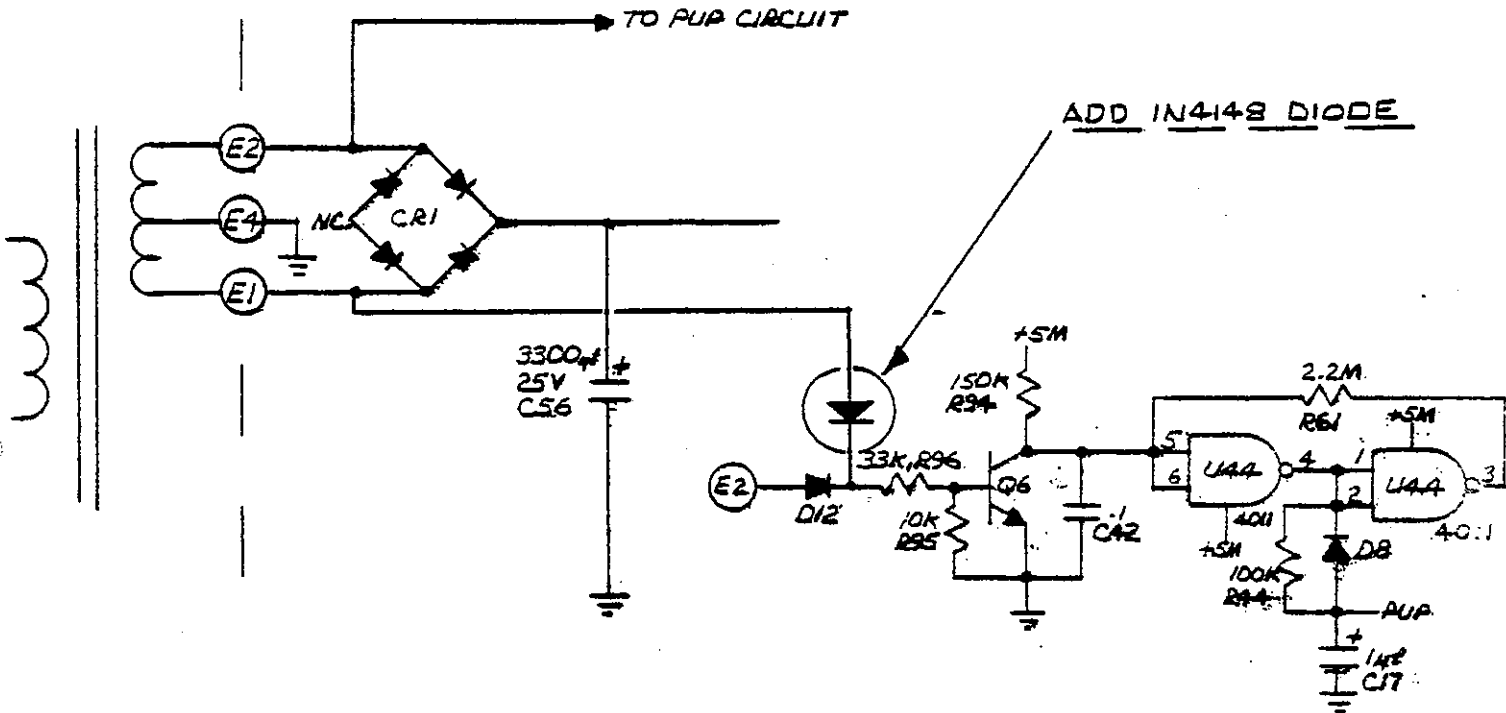
DATE

PRODUCT AFFECTED

DSX

DRAWINGS AFFECTED

DESCRIPTION OF CHANGE



REASON FOR CHANGE

IMPROVE MARGIN OF "PUP" CIRCUIT TO INADVERTENT
TURN-OFF, ESPECIALLY AT 50 HZ

EFFECTIVITY

- FUTURE PRODUCTION ONLY
- RETROFIT UNITS IN PRODUCTION AND INVENTORY
- RETROFIT UNITS IN FIELD
- DRAWING CORRECTION ONLY; HARDWARE NOT AFFECTED
-

WRITTEN BY

[Signature]

DATE

3-28-83

APPROVED BY

[Signature]

DATE

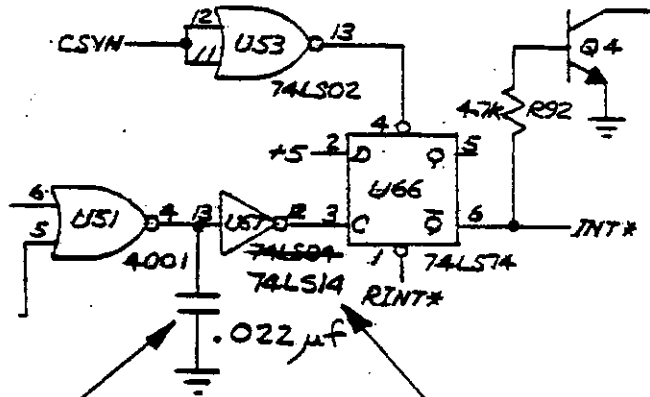
3-28-83

PRODUCT AFFECTED

DSX

DRAWINGS AFFECTED

DESCRIPTION OF CHANGE



1) ADD .022 CAP.

2) CHANGE U67 TO 74LS14

REASON FOR CHANGE

REDUCE SUSCEPTIBILITY OF "CLOCK-IN"
INPUT TO NOISE

EFFECTIVITY

- FUTURE PRODUCTION ONLY
- RETROFIT UNITS IN PRODUCTION AND INVENTORY
- RETROFIT UNITS IN FIELD AS NEEDED
- DRAWING CORRECTION ONLY; HARDWARE NOT AFFECTED
- _____

WRITTEN BY

[Signature]

DATE

5-4-83

APPROVED BY

[Signature]

DATE

5-4-83

ENGINEERING CHANGE ORDER

PRODUCT AFFECTED: *DSX*

DRAWINGS AFFECTED:
1591 SHEET 2 OF 3

ECO NO. 211
PAGE
1 OF 2

EFFECTIVITY:

- AS REQUIRED IN TEST
- FUTURE PRODUCTION
- RETROFIT PRODUCTION & INVENTORY
- RETROFIT IN FIELD AS NEEDED
- DRAWING CORRECTION ONLY
-

REASON FOR CHANGE:

TO ELIMINATE CLOCK NOISE AND GROUND HUM WHEN CONNECTING THE DMX OR DX CLOCK OUT TO THE DSX CLOCK IN.

WRITTEN BY:

DATE: *9-21-83*

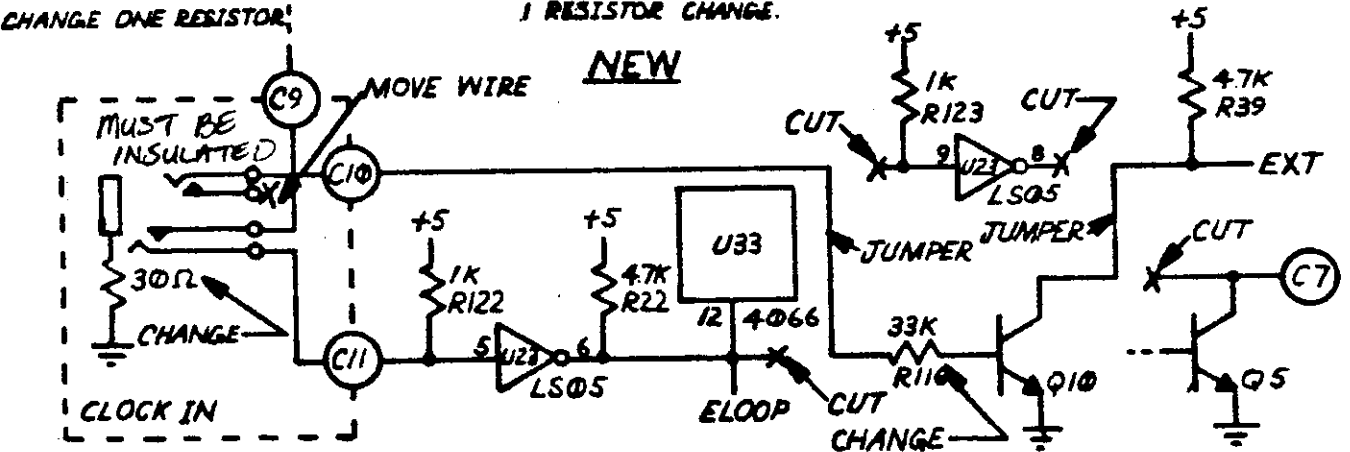
APPROVED BY:

DATE: *9-21-83*

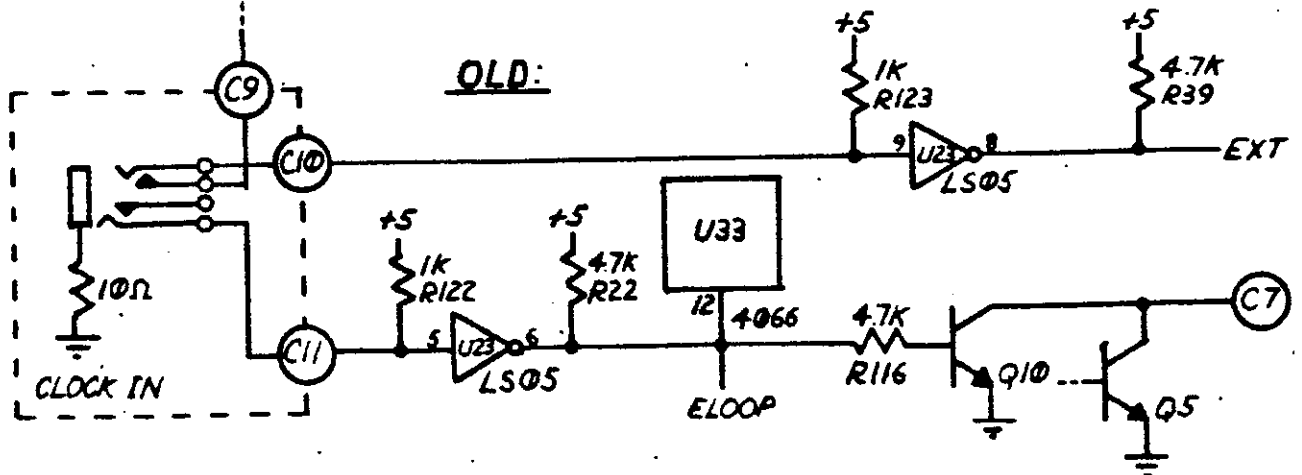
DESCRIPTION OF CHANGE:

*NEW: ON BACK PANEL
MOVE ONE WIRE
CHANGE ONE RESISTOR!*

*ON PROCESSOR BOARD:
4 CUTS, 2 JUMPERS,
1 RESISTOR CHANGE.*



NOTE: JACK MUST BE ISOLATED FROM CHAS&TS.



OBERTHEIM ELECTRONICS, INC.

2250 South Barrington Avenue, Los Angeles, California 90064, 213-473-6574

ENGINEERING CHANGE ORDER

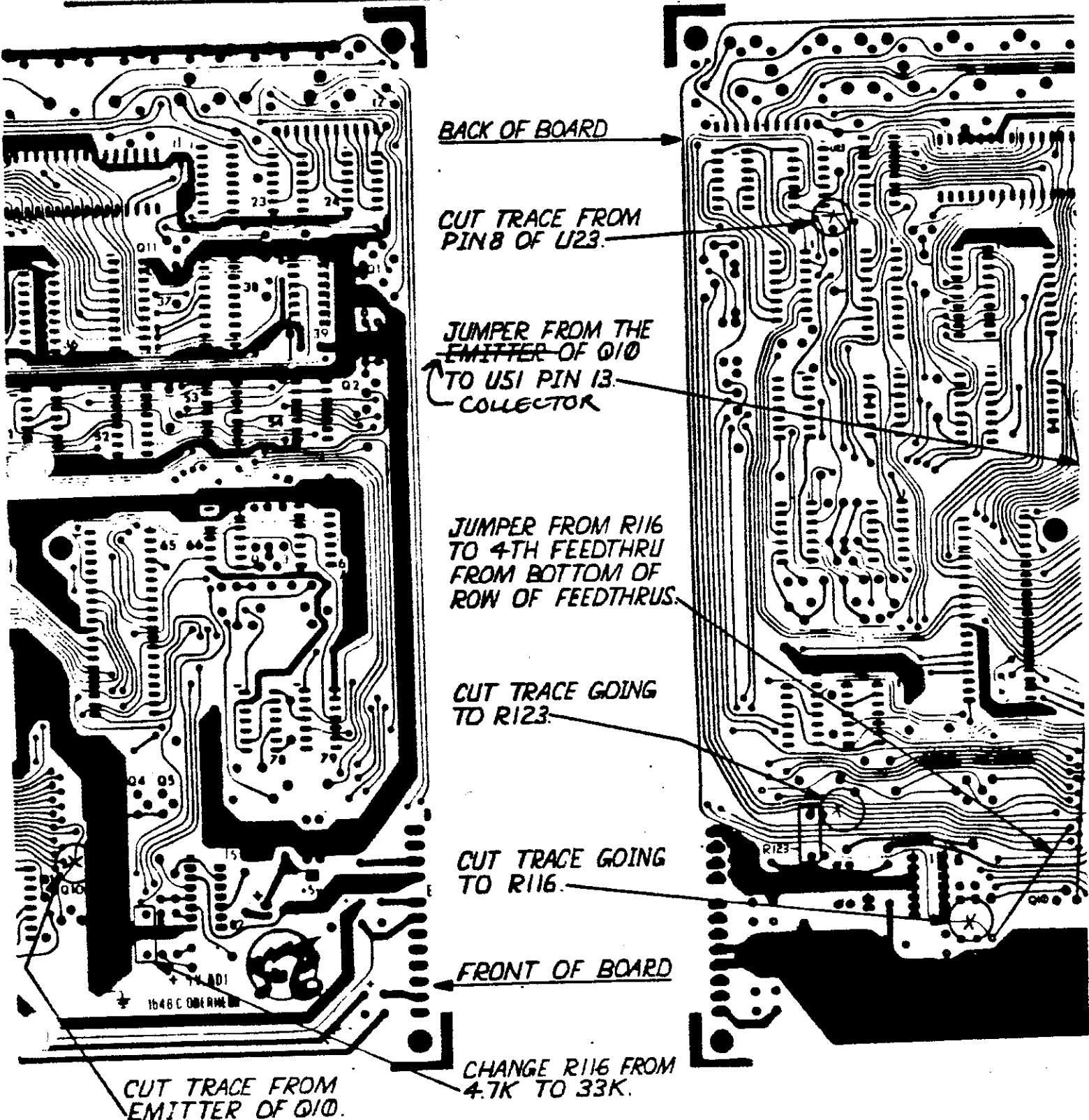
PRODUCT AFFECTED: DSX

DRAWINGS AFFECTED:

ECO NO. 211

PAGE

2 OF 2



ENGINEERING CHANGE ORDER

PRODUCT AFFECTED: *DSX*

DRAWINGS AFFECTED: *1591A*

ECO NO. *212*

SHEET 2 OF 3

PAGE 1 OF 1

EFFECTIVITY:

- AS REQUIRED IN TEST
- FUTURE PRODUCTION
- RETROFIT PRODUCTION & INVENTORY
- RETROFIT IN FIELD AS NEEDED
- DRAWING CORRECTION ONLY
-

REASON FOR CHANGE:

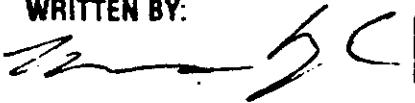
TO ELIMINATE CLOCK NOISE WHEN CONNECTING DSX CLOCK OUT TO DMX CLOCK IN. ALSO ALLOWS TWO DSX'S TO BE CLOCKED TOGETHER WHEN ECO. 211 HAS BEEN IMPLEMENTED.

WRITTEN BY:

DATE: *9-21-83*

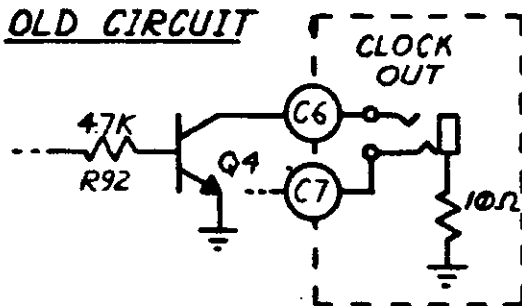
APPROVED BY:

DATE: *9-21-83*

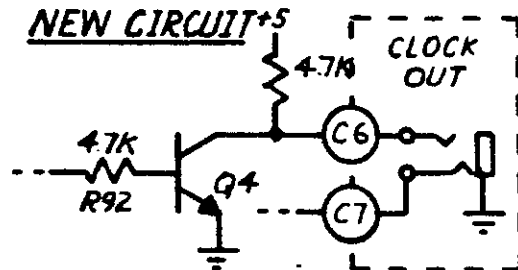



DESCRIPTION OF CHANGE:

OLD CIRCUIT



NEW CIRCUIT⁺⁵



ON PROCESSOR BOARD:

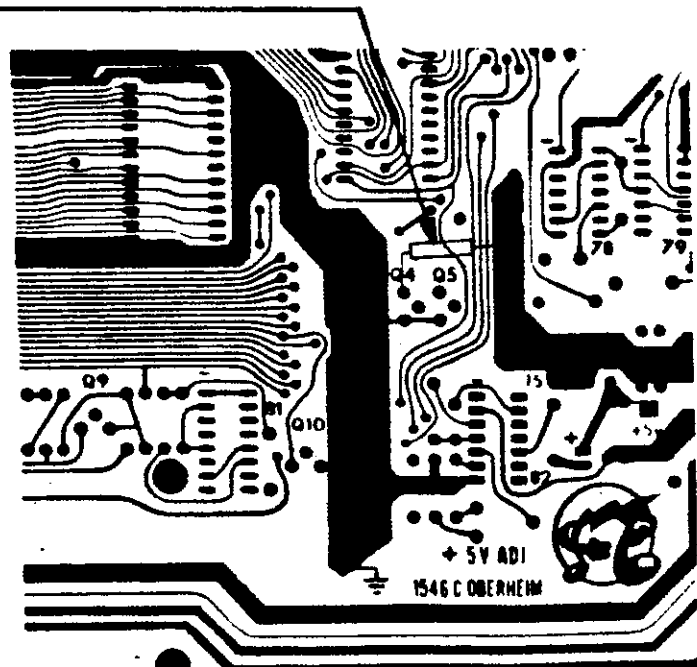
ADD A 4.7K PULL UP RESISTOR TO THE COLLECTOR OF Q4.

ON REAR PANEL:

REMOVE 10Ω RESISTOR ON CLOCK OUT JACK AND CONNECT JACK SLEEVE TO GROUND.

NOTE:

*ECO'S 211 & 212
OBSOLETE ECO 208.*



OBERHEIM ELECTRONICS, INC.

2250 South Barrington Avenue Los Angeles California 90064. 213-473-6574

ENGINEERING CHANGE ORDER

PRODUCT AFFECTED:

DSX

DRAWINGS AFFECTED:

NONE

ECO NO.

213

(13
PAGES)

EFFECTIVITY:

- AS REQUIRED IN TEST
- FUTURE PRODUCTION
- RETROFIT PRODUCTION & INVENTORY
- RETROFIT IN FIELD AS NEEDED
- DRAWING CORRECTION ONLY
- _____

REASON FOR CHANGE:

ADDITION OF NEW FEATURES
(SEE ATTACHED PAGES)

WRITTEN BY:

[Signature]

DATE:

4/5/84

APPROVED BY:

[Signature]

DATE:

4-5-84

DESCRIPTION OF CHANGE:

SOFTWARE CHANGE, REVISION 3.01
REPLACEMENT OF 3 2732A EPROMS
(SEE INSTALLATION INSTRUCTIONS)



OBERHEIM ELECTRONICS, INC.

2250 South Barrington Avenue, Los Angeles, California 90064, 213-473-6574

DSX Revision 3.01 Software
Installation Guide
4/5/84

NOTE: ECO No. 202 must be implemented before revision 3.01 can be installed. If U75 is currently a 2732, ECO 202 has been installed. Also, revision 3.01 can only work if the DSX has 6000 note memory. If there are any empty memory sockets in the DSX, a memory expansion must be added before installing revision 3.01 software.

1. Save DSX memory to cassette tape as described in the owner's manual. Since the installation of revision 3.01 software will erase all of memory, the memory must be saved to cassette if it is desired to keep it.
2. Turn off power and remove power cord. Remove the front two screws and lift up the front panel of the DSX.
3. Remove the three 24-pin 2732A EPROMs from I.C. locations U63, U75, and U76. Return these EPROMs to Oberheim Electronics.
4. Install the new EPROM labeled "DSX 3.01-0" into I.C. location U76. Make sure that the notch in the EPROM faces the back of the DSX.
5. Install the new EPROM labeled "DSX 3.01-1" into I.C. location U63. Make sure that the notch in the EPROM faces the back of the DSX.
6. Install the new EPROM labeled "DSX 3.01-2" into I.C. location U75. Make sure that the notch in the EPROM faces the back of the DSX.
7. Close the front panel and secure it with the screws.
8. Connect the power cord and turn on the power.
9. Press the EDIT MODE button, followed by the 4 button, followed by the ERASE button. This will reset all of memory.
10. Load the cassette back into memory as described in the owner's manual.

ENGINEERING CHANGE ORDER

PRODUCT AFFECTED:

DSX

DRAWINGS AFFECTED:

NONE

ECO NO.

214

EFFECTIVITY:

- AS REQUIRED IN TEST
- FUTURE PRODUCTION
- RETROFIT PRODUCTION AND INVENTORY
- RETROFIT IN FIELD AS NEEDED
- DRAWING CORRECTED ONLY
- _____

REASON FOR CHANGE:

SOFTWARE CHANGE TO ALLOW
"PUNCH-IN" FOOTSWITCH TO OPERATE
PROPERLY. THIS PROBLEM EXISTED
IN VERSION 3.01.

WRITTEN BY:



DATE:

5/18/84

APPROVED BY:



DATE:

5/18/84

DESCRIPTION OF CHANGE:

REPLACE EPROM 3.01-0 AT U76 WITH 3.02-0.
REPLACE EPROM 3.01-1 AT U63 WITH 3.02-1.
REPLACE EPROM 3.01-2 AT U75 WITH 3.02-2.

DSX REVISION 3.01 SOFTWARE INSTALLATION GUIDE (P/N_o 953017) STILL
APPLIES TO 3.02 SOFTWARE. ALL REFERENCES TO 3.01 SHOULD BE READ 3.02.

DSX REVISION 3.01 SOFTWARE OPERATION GUIDE (P/N_o 950030) STILL
APPLIES TO 3.02 SOFTWARE. ALL REFERENCES TO 3.01 SHOULD BE READ 3.02.



OVERHEIM ELECTRONICS, INC.

2258 South Barrington Avenue, Los Angeles, California, (213) 473-8574

ENGINEERING CHANGE ORDER

PRODUCT AFFECTED:

DSX

DRAWINGS AFFECTED:

DSX CONTROL SCHEMATIC 15918 SHEET 2
DSX CONTROL PARTS LAYOUT 1596A

ECO NO.

215

PAGE 1 OF 4

EFFECTIVITY:

- AS REQUIRED IN TEST
 FUTURE PRODUCTION
 RETROFIT PRODUCTION AND INVENTORY
 RETROFIT IN FIELD AS NEEDED
 DRAWING CORRECTED ONLY

REASON FOR CHANGE:

IMPROVE RELIABILITY OF MEMORY RETENTION.

WRITTEN BY:

MARCUS RYLE

DATE:

6/29/84

APPROVED BY:

DATE:

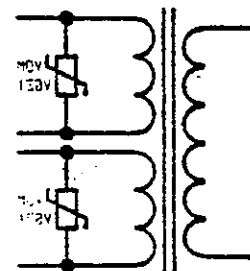
6/29/84

DESCRIPTION OF CHANGE:

IMPORTANT:

THIS ECO WILL CAUSE A MEMORY DROP WHILE INSTALLING IT.
SAVE DATA TO CASSETTE FIRST.

1. REMOVE R61, R95, R96, C42, D12 (IN PRODUCTION, ALSO REMOVE R35, D3, C14).
2. REMOVE DIODE AND WIRE CONNECTED UNDER BOARD TO CONNECTOR E1 AND R96 FROM ECO 209.
3. CUT TRACE GOING TO BASE OF Q6 ON TOP OF BOARD.
4. CUT RESET SIGNAL BELOW FEEDTHRU AT RIGHT OF U65 ON TOP OF BOARD.
5. CUT BETWEEN U43 PIN 2 AND U43 PIN 5 ON BOTTOM OF BOARD.
6. CUT BETWEEN U43 PIN 6 AND U43 PIN 7 ON BOTTOM OF BOARD.
7. CUT BETWEEN U44 PIN 12 AND + SIDE OF C17 ON BOTTOM OF BOARD.
8. PUT 100K RESISTOR (478104) INTO LOCATION R96.
9. PUT 47K RESISTOR (478473) INTO LOCATION R95.
10. CONNECT DIODE (A) (481001) FROM BASE OF Q6 TO TOP OF R95 ON BOTTOM OF BOARD.
11. CONNECT 15 μ F CAP (151024) ACROSS R96 ON BOTTOM OF BOARD. + SIDE TO TOP OF R96.
12. CONNECT ONE SIDE OF .1 CAP (153013) TO BASE OF Q6, BOTTOM OF BOARD.
13. CONNECT 33K RESISTOR (478333) FROM BASE OF Q6 TO BOTTOM OF C42, ON BOTTOM OF BOARD.
14. CONNECT OTHER SIDE OF .1 CAP (153013) TO DIODES (B) AND (C).
15. CONNECT (WITH JUMPER) OTHER SIDE OF DIODES (B) AND (C) TO BOTTOM OF BOARD.
16. JUMPER FROM TOP HOLE OF LOCATION D12 TO +5 AT BOTTOM (ANODE) OF D11.
17. JUMPER TOP (ANODE) OF D8 TO U43 PIN 1 ON BOTTOM OF BOARD.
18. JUMPER FROM U43 PIN 3 TO U43 PIN 5 ON BOTTOM OF BOARD.
19. CONNECT A .1 CAP (153013) FROM U43 PIN 3 TO U43 PIN 7 ON BOTTOM OF BOARD.
20. JUMPER FROM U43 PIN 4 TO U44 PIN 12 ON BOTTOM OF BOARD.
21. JUMPER FROM U44 PIN 9 TO FEEDTHROUGH RIGHT OF U65 ABOVE TRACE CUT IN STEP 4.
22. CONNECT A 150V MOV (480000) TO EACH OF THE PRIMARY WINDINGS OF THE POWER TRANSFORMER:



OBERHEIM ELECTRONICS, INC.

229 South Barrington Avenue, Los Angeles, California, (213) 473-6574

ENGINEERING CHANGE ORDER

PRODUCT AFFECTED:

DSX

DRAWINGS AFFECTED:

DSX CONTROL SCHEMATIC 1591B SHEET 2
DSX CONTROL PARTS LAYOUT 1596A

ECO NO.

215

PAGE 2 OF 4

EFFECTIVITY:

- AS REQUIRED IN TEST
- FUTURE PRODUCTION
- RETROFIT PRODUCTION AND INVENTORY
- RETROFIT IN FIELD AS NEEDED
- DRAWING CORRECTED ONLY
-

REASON FOR CHANGE:

IMPROVE RELIABILITY OF MEMORY RETENTION.

WRITTEN BY:

MARCUS RYLE

DATE:

6/29/84

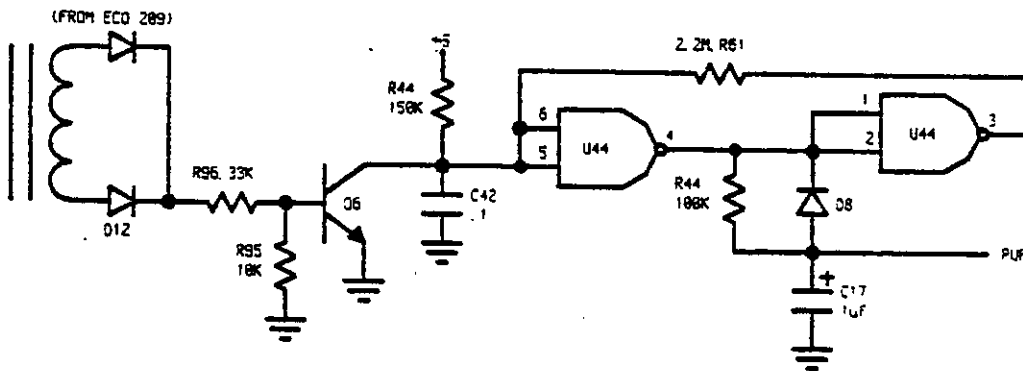
APPROVED BY:

DATE:

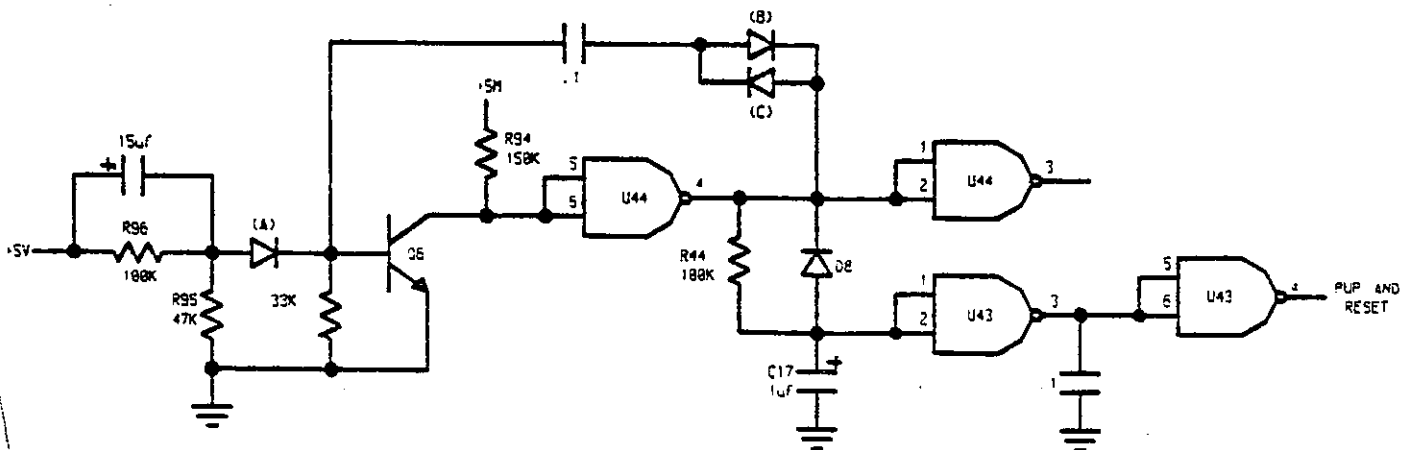
6/29/84

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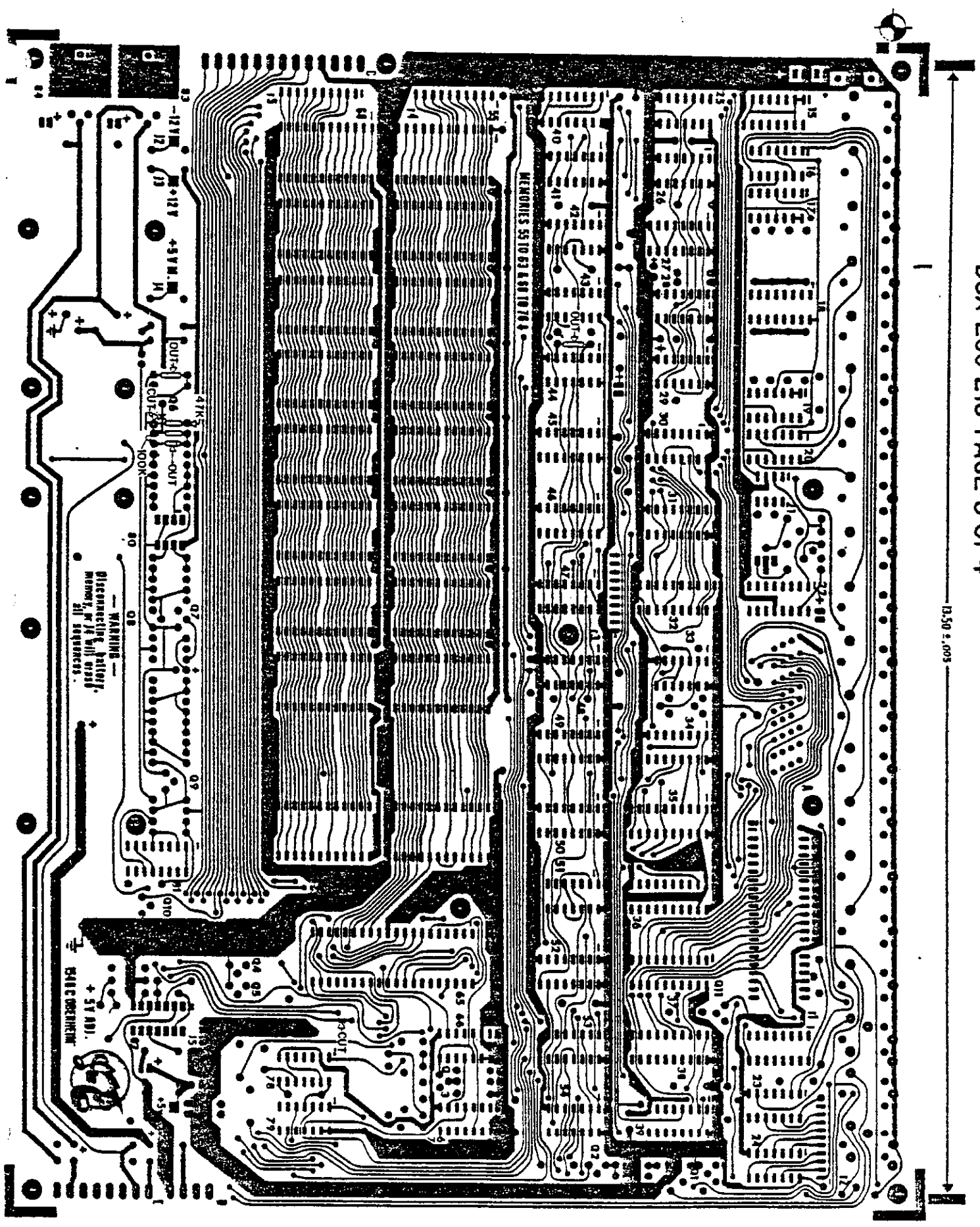
OLD



NEW

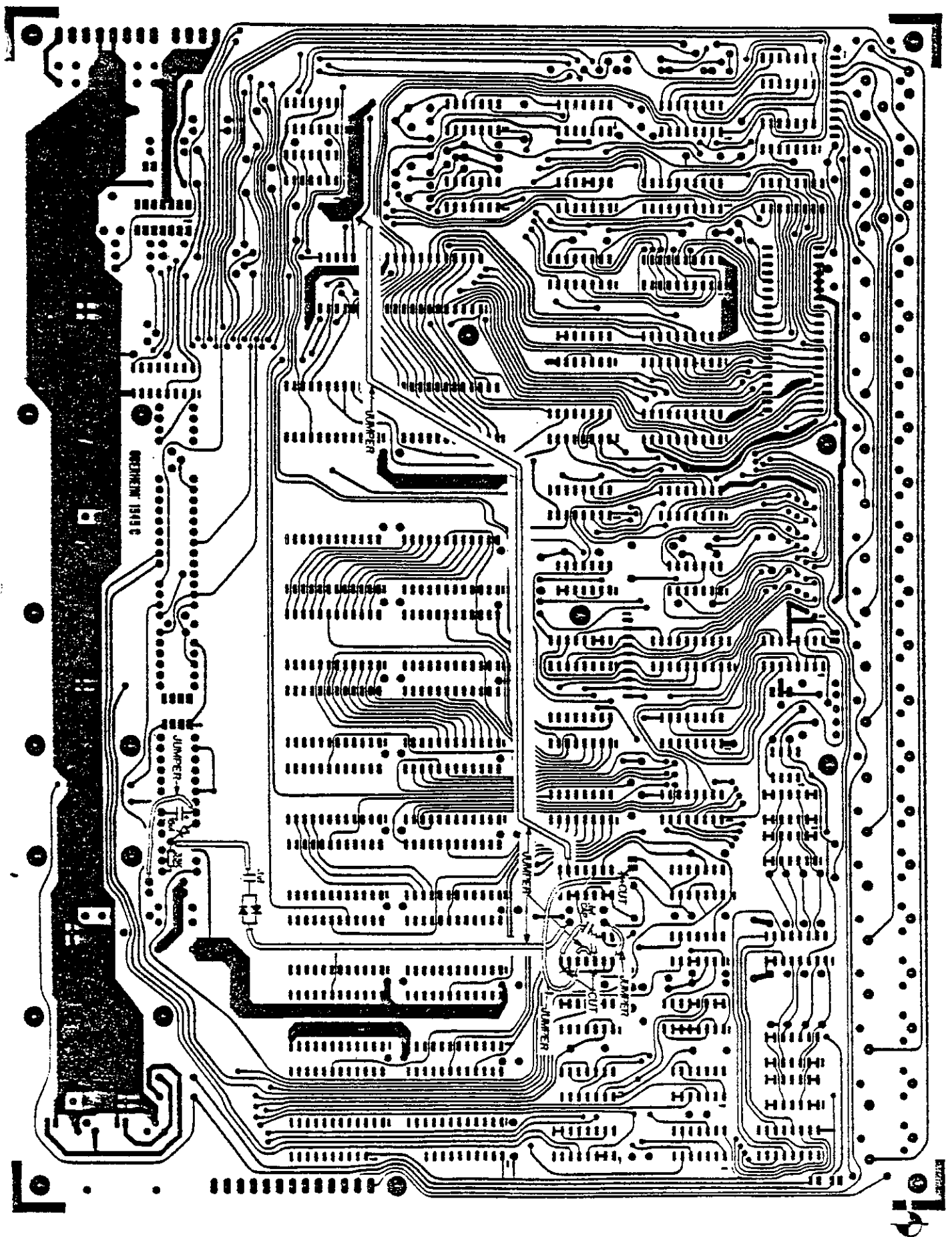


1350 ± .005



WARNING —
Disconnect battery.
Memory will erase
all sequences.

5418 DOCUMENT
+ 5V ADJ.



ENGINEERING CHANGE ORDER

PRODUCT AFFECTED:

DSX

DRAWINGS AFFECTED:

DSX CONTROL SCHEMATIC 1591B SHEET 2
DSX CONTROL PARTS LAYOUT 1596A

ECD NO.

216

EFFECTIVITY:

- AS REQUIRED IN TEST
 FUTURE PRODUCTION
 RETROFIT PRODUCTION AND INVENTORY
 RETROFIT IN FIELD AS NEEDED
 DRAWING CORRECTED ONLY
 RETROFIT UNITS WITH ECD 215 IMPLEMENTED

REASON FOR CHANGE:

TO REDUCE CURRENT DRAW ON +5 SUPPLY FROM SPEAKER,
WHICH SOMETIMES CAUSES PUP TO FALSE TRIGGER.

WRITTEN BY:

MARCUS RYLE

DATE:

8/29/84

APPROVED BY:



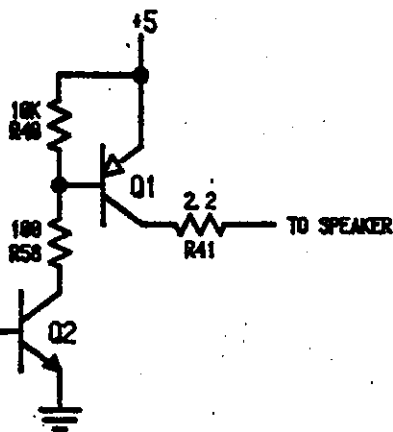
DATE:

8/29/84

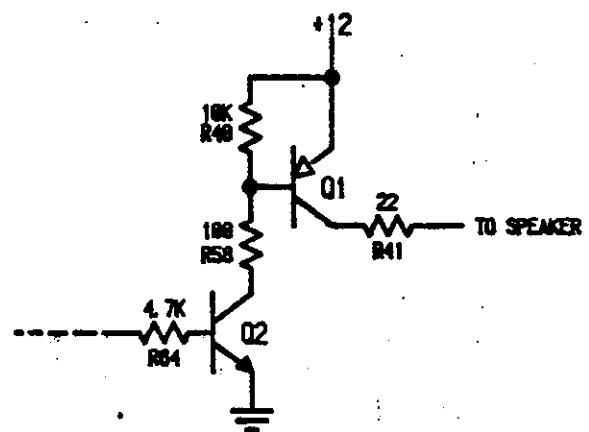
DESCRIPTION OF CHANGE:

1. CUT +5 TRACE GOING TO TOP OF R40 AND EMITTER OF Q1 ON TOP OF BOARD.
2. JUMPER +12 FROM PIN 1 OF r2 RESISTOR SIP TO EMITTER OF Q1.
3. REMOVE RESISTOR R41 (2.2 OHMS) AND REPLACE IT WITH A 22 OHM RESISTOR.

OLD



NEW



OBERTHEIM ELECTRONICS, INC.

2250 South Barrington Avenue, Los Angeles, California, (213)473-6574

ENGINEERING CHANGE ORDER

PRODUCT AFFECTED:

DSX

DRAWINGS AFFECTED:

NONE

ECO No.

217

AFFECTIVITY:

- AS REQUIRED IN TEST
 FUTURE PRODUCTION
 RETROFIT PRODUCTION & INVENTORY
 RETROFIT IN FIELD AS NEEDED
 DRAWING CORRECTION ONLY

REASON FOR CHANGE:

**IMPROVE OPERATION AT HIGH TEMPOS.
CORRECT RETRIGGERING PROBLEM
WHILE RECORDING CVS TO MIDI ON
08-8.**

WRITTEN BY:

MARCUS RYLE

DATE:

9-17-84

APPROVED BY:



DATE:

9-17-84

DESCRIPTION OF CHANGE:

**REPLACE EPROM 3.02-0 AT U76 WITH 3.04-0.
REPLACE EPROM 3.02-1 AT U63 WITH 3.04-1.
REPLACE EPROM 3.02-2 AT U75 WITH 3.04-2.**

**DSX REVISION 3.01 SOFTWARE INSTALLATION GUIDE (P/No 953017) STILL
APPLIES TO 3.04 SOFTWARE. ALL REFERENCES TO 3.01 SHOULD BE READ 3.04.**

**DSX REVISION 3.01 SOFTWARE OPERATION GUIDE (P/No 950030) STILL
APPLIES TO 3.04 SOFTWARE. ALL REFERENCES TO 3.01 SHOULD BE READ 3.04.**



OBERHEIM ELECTRONICS, INC

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