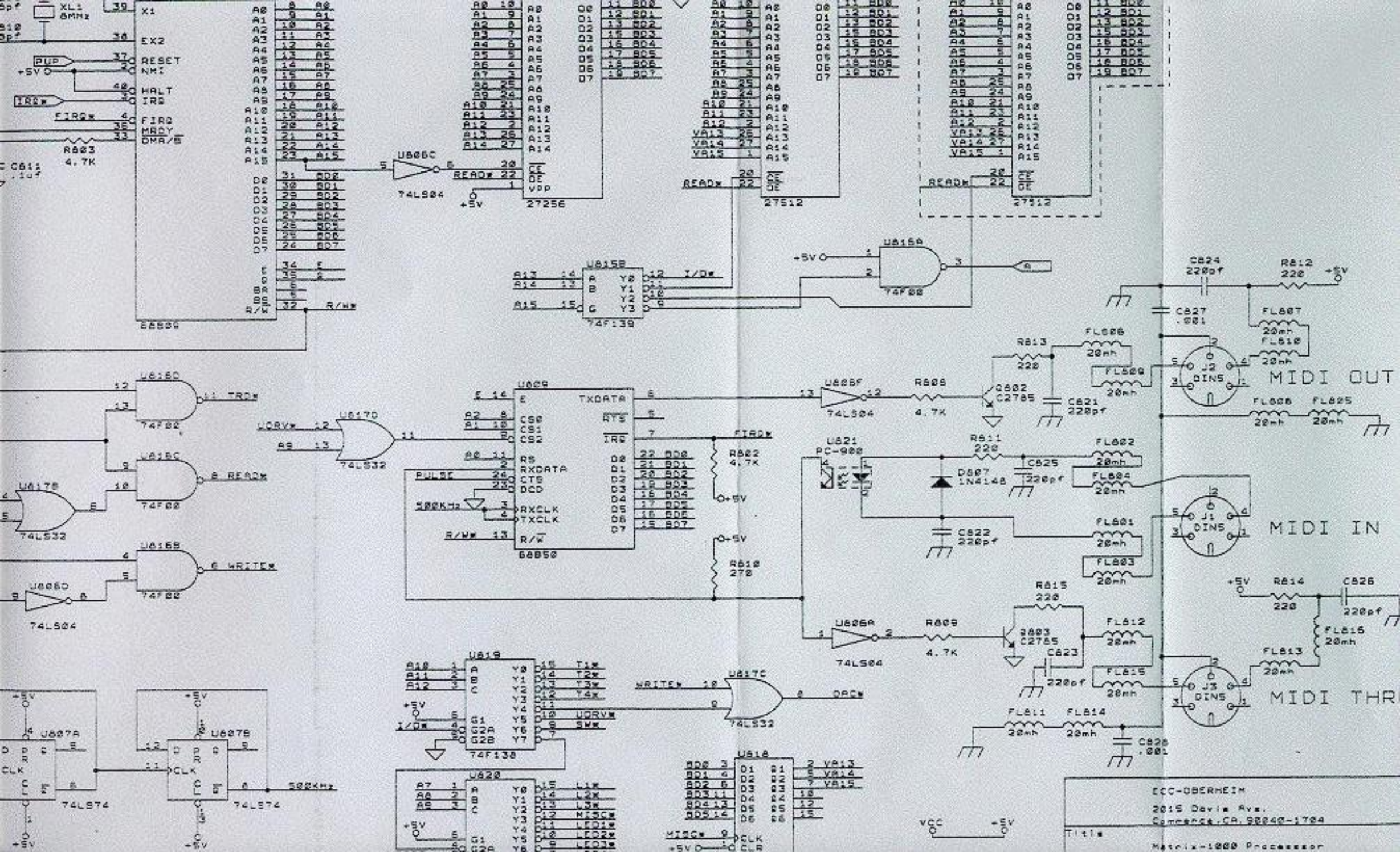
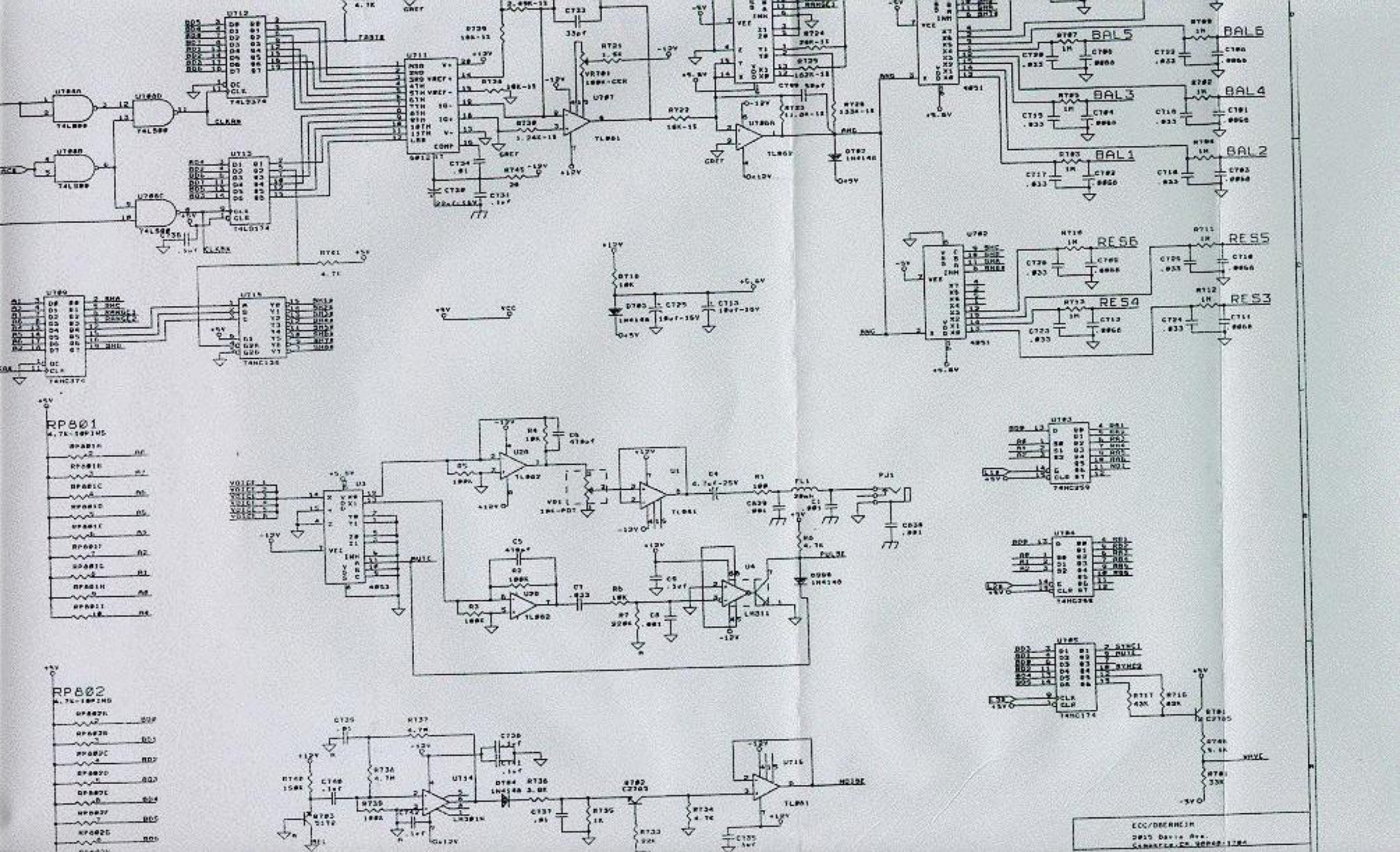
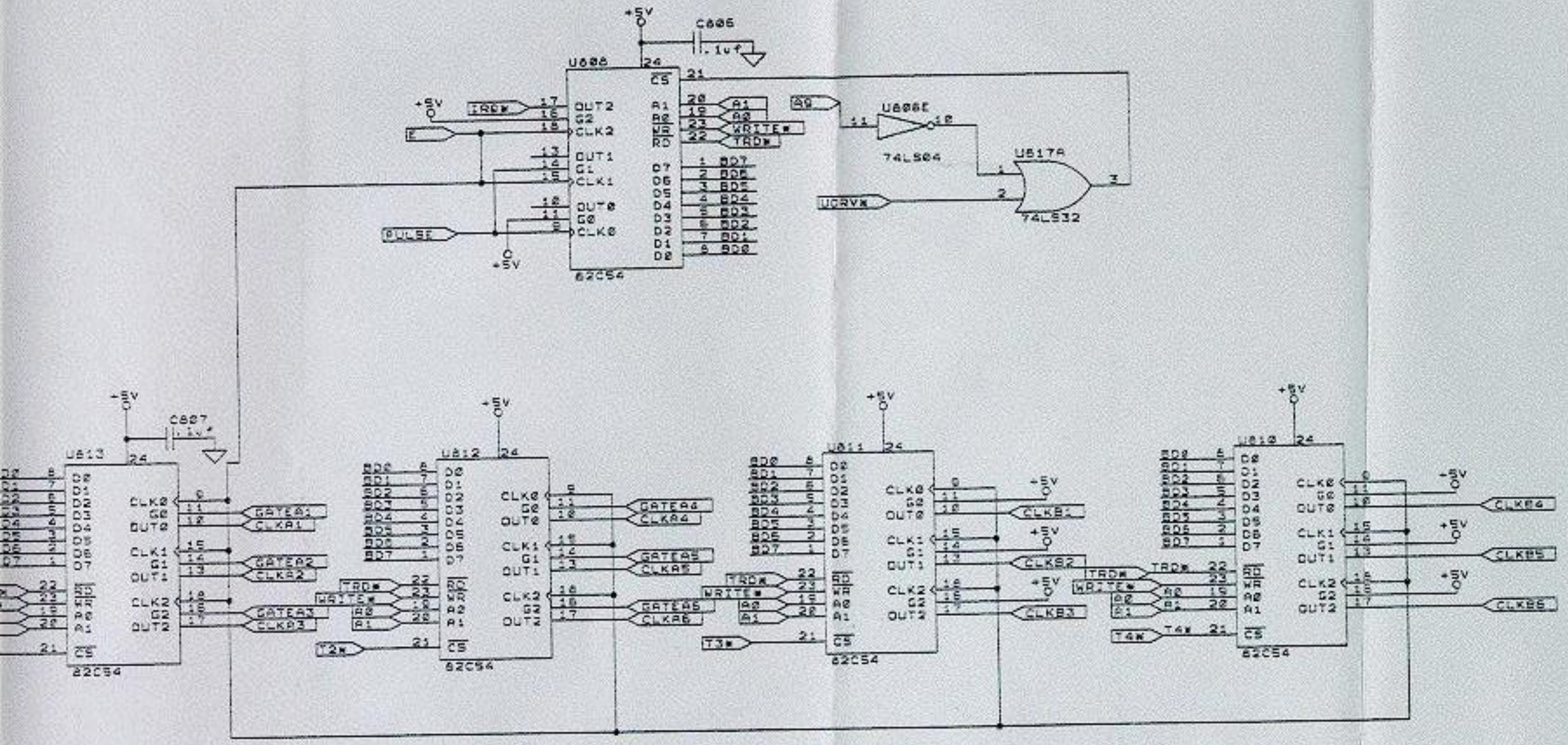
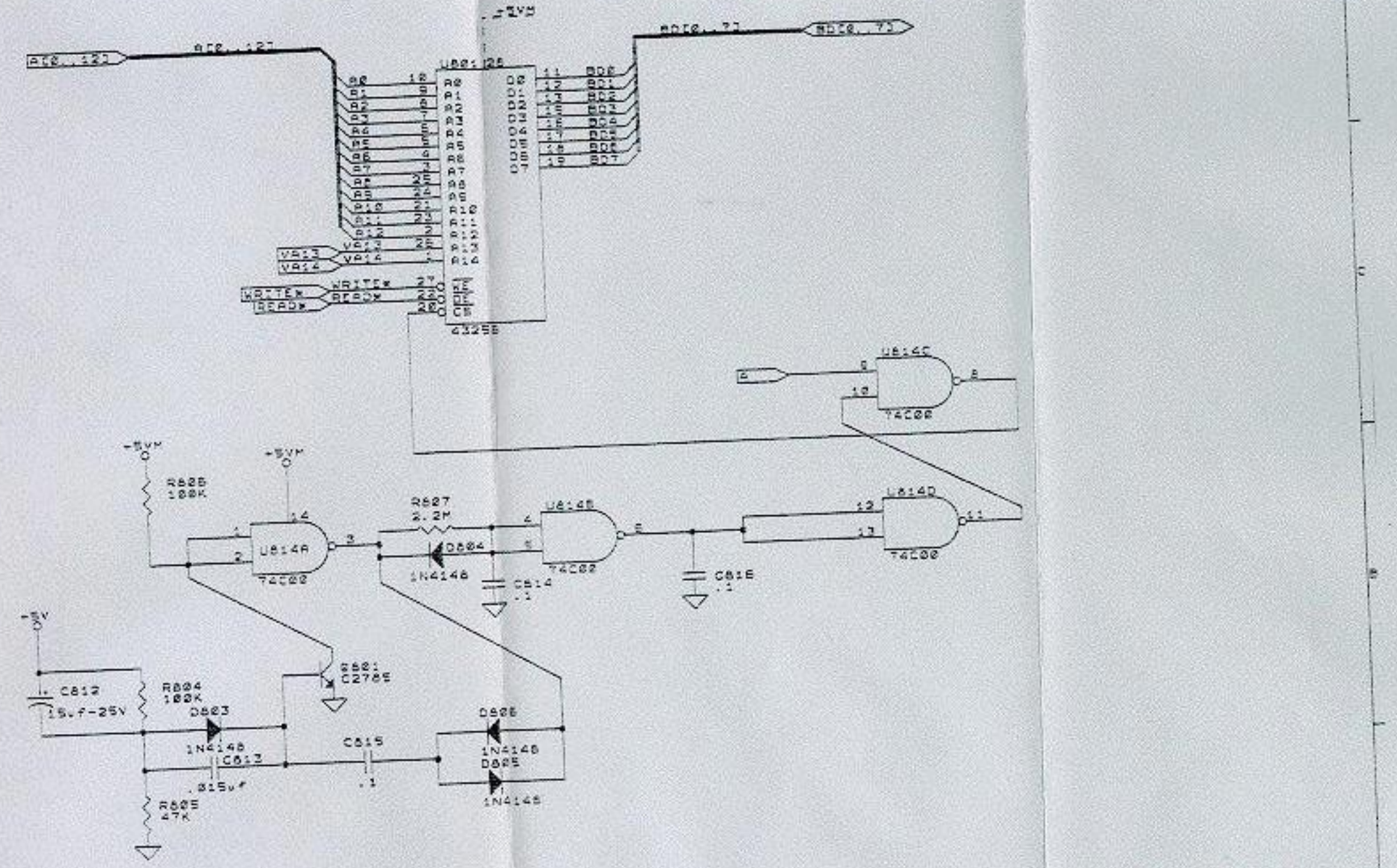

MIDI OUT
MIDI IN
MIDI THR
ECC-OBERHEIM
2015 Davis Ave.
Cerritos,CA. 90640-1704
Title
Matrix-1000 Processor


RP801
RP802
BAL1
BAL2
BAL3
BAL4
BAL5
BAL6
RES1
RES2
RES3
RES4
RES5
RES6
ECG/DREAMSIM
2015 Davis Ave.
Cameron,CA 92008-1284

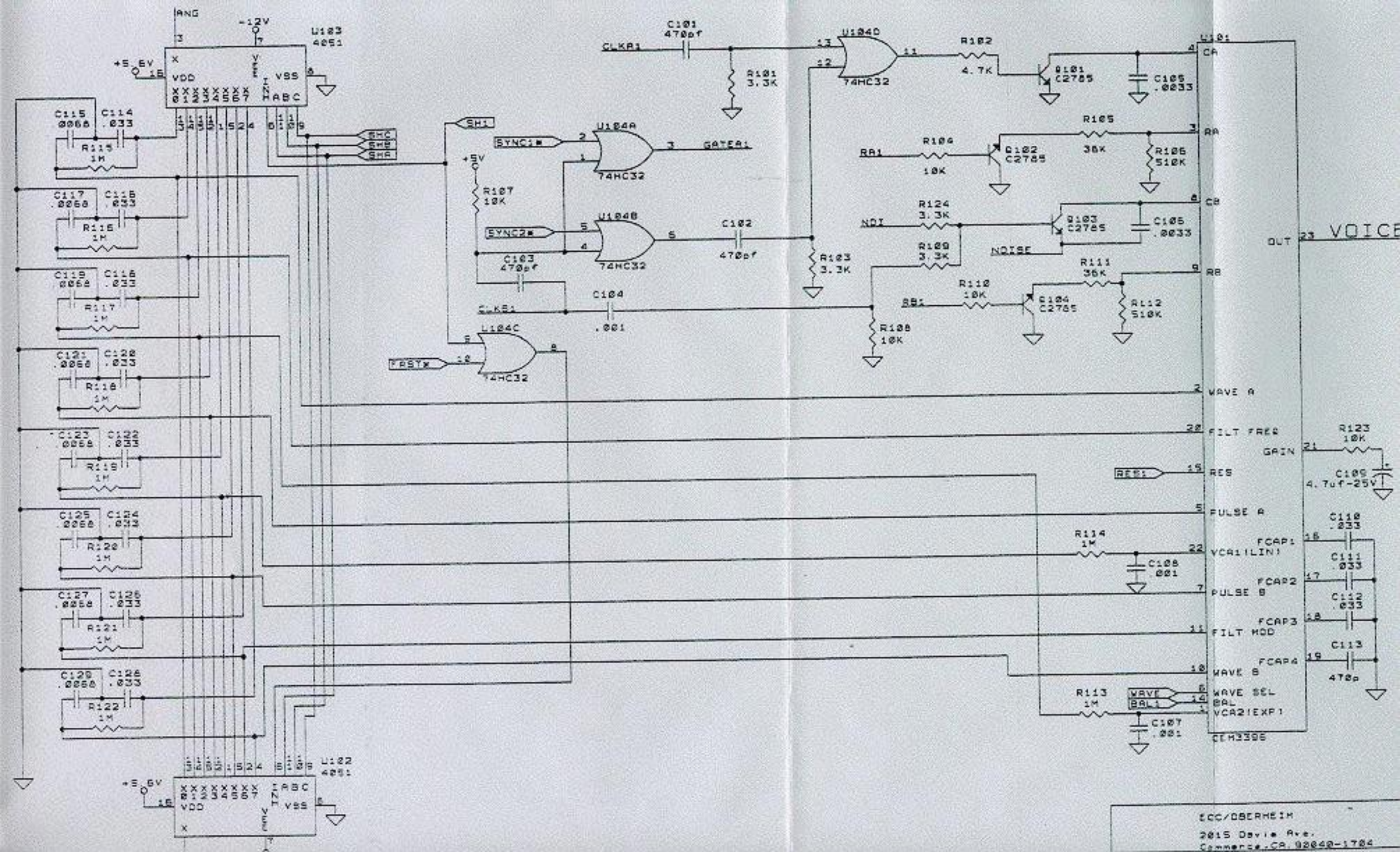


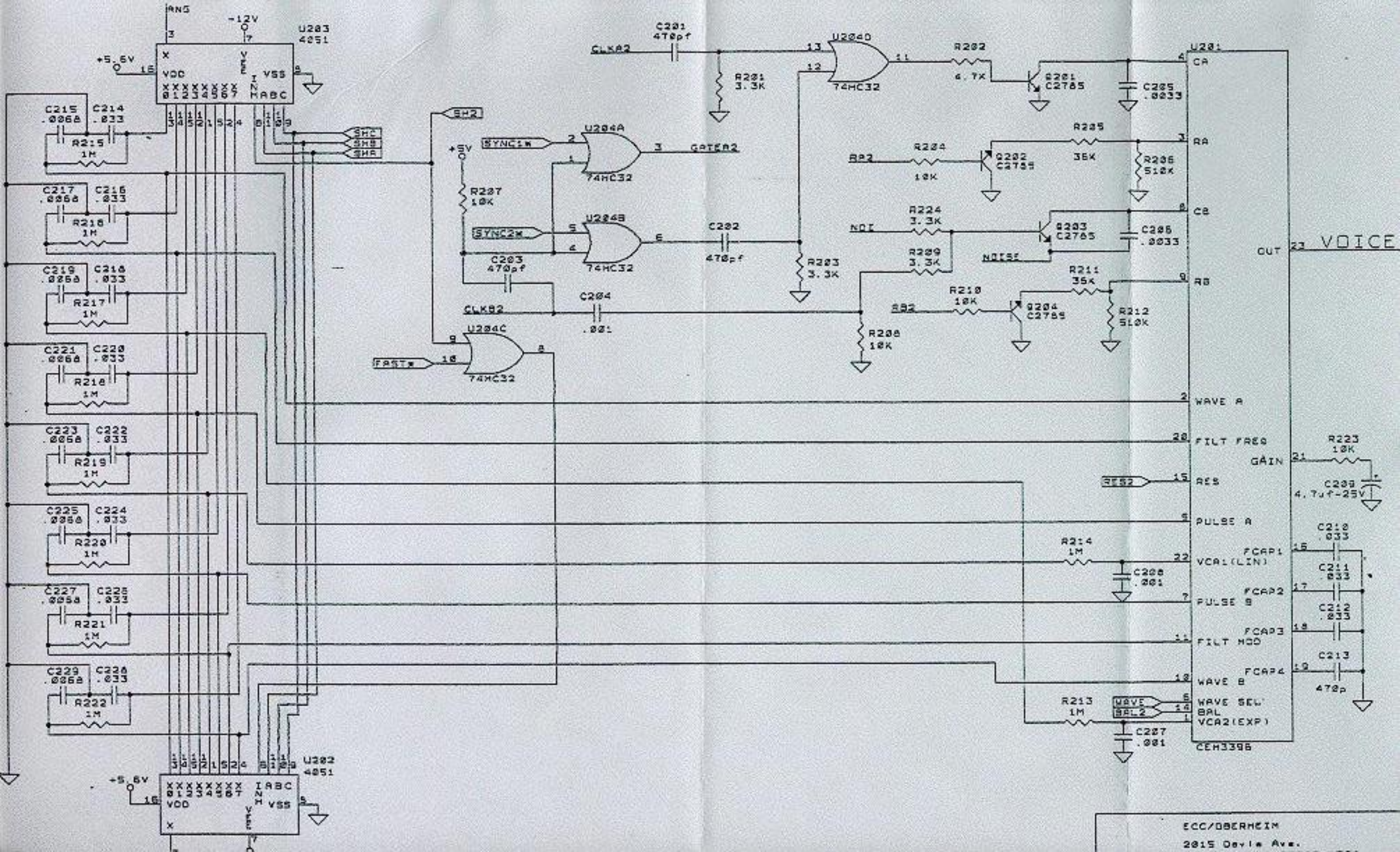
ECC/OBERHEIM
2015 Davis Ave.
Commerce, CA. 90040-1784

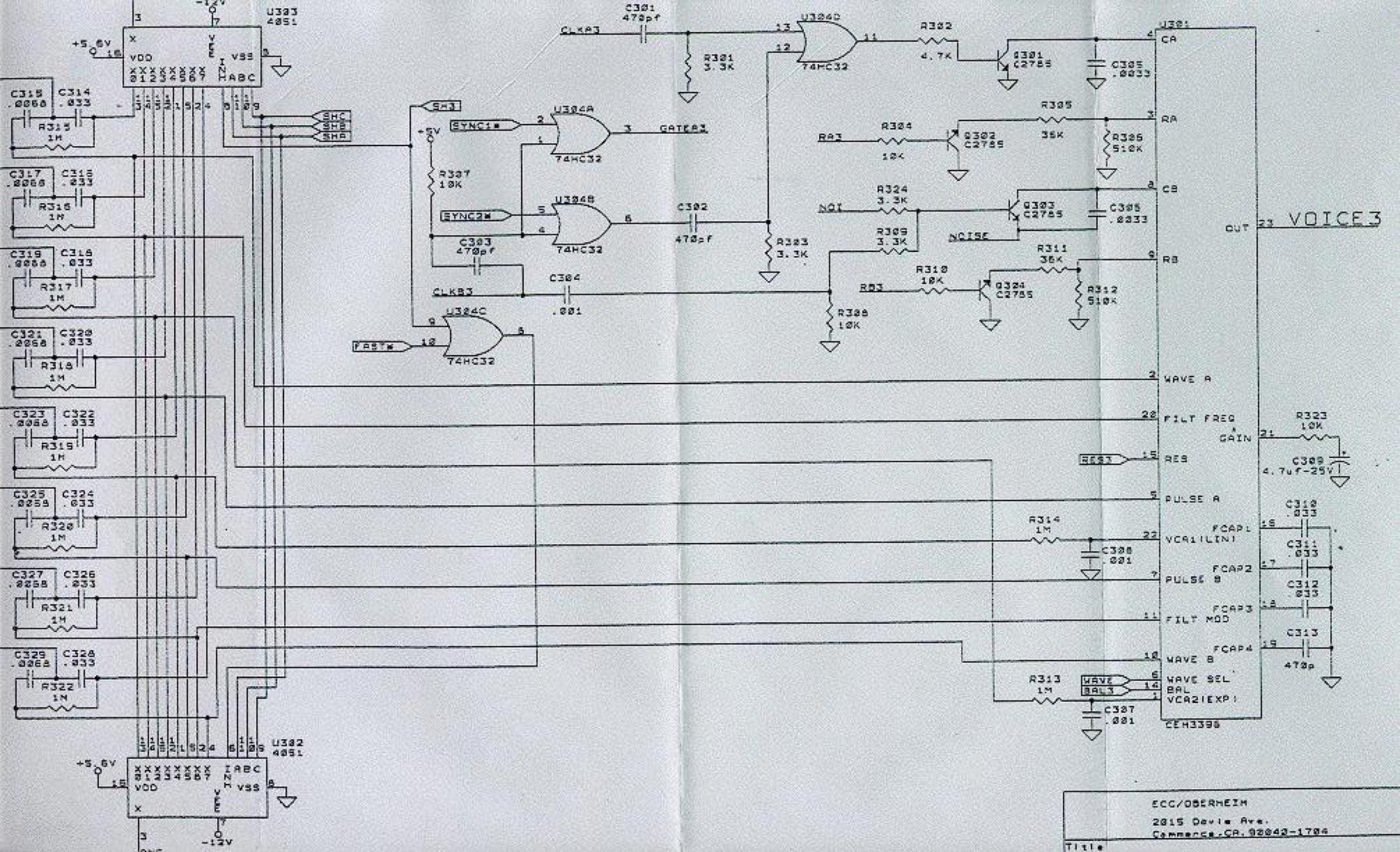
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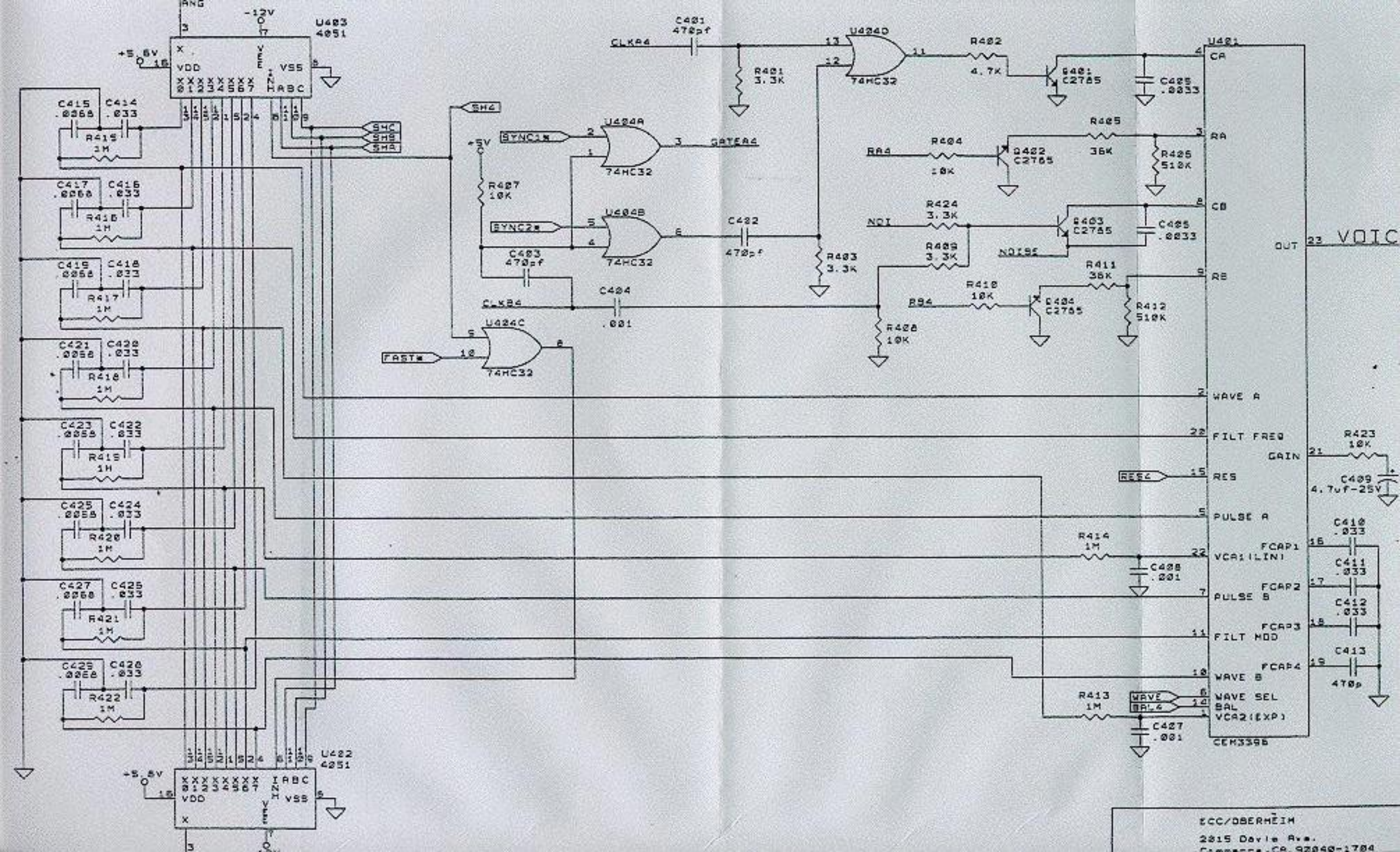


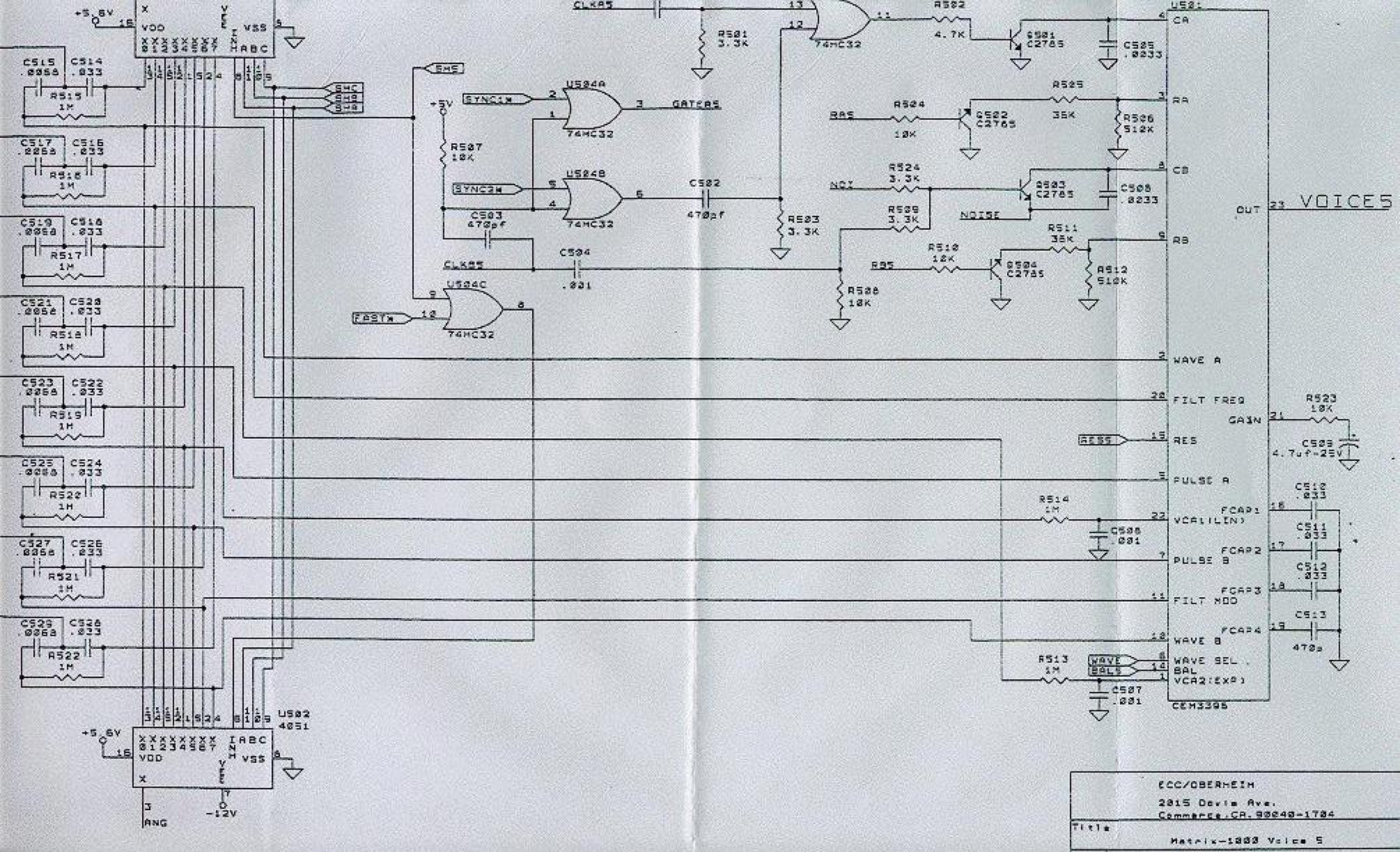
ECC/OBERHEIM 2015 Davie Ave. Commerce,CA.90040-1704		
Title: Matrix-1000 CMOS		
Size: B	Document Number: 2497	REV: B
Date: September 30, 1988	Sheet 5 of 12	

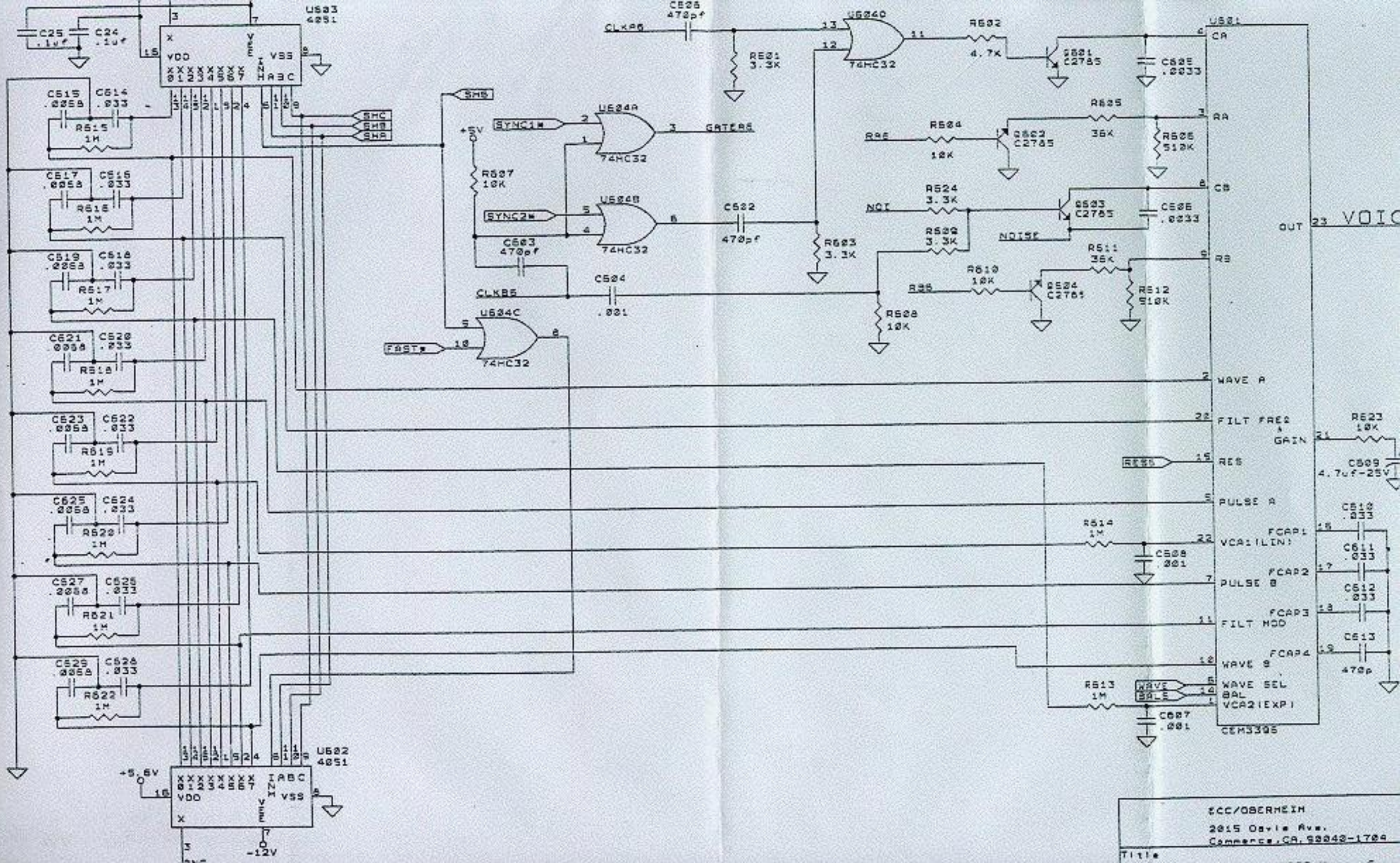

ANG
+12V
U103
4051
+5.6V
VDD
VSS
VEE
INH
ABC
C115 .0068
C114 .033
R115 1M
C117 .0068
C116 .033
R116 1M
C119 .0068
C118 .033
R117 1M
C121 .0068
C120 .033
R118 1M
C123 .0068
C122 .033
R119 1M
C125 .0068
C124 .033
R120 1M
C127 .0068
C126 .033
R121 1M
C129 .0068
C128 .033
R122 1M
SHC
SHB
SHA
U102
4051
SH1
+5V
R107 10K
SYNC1*
SYNC2*
U104A
U104B
U104C
74HC32
C103 470pf
C104 .001
C102 470pf
GATEA1
CLKA1
FPSY*
C101 470pf
R101 3.3K
U104D
R102 4.7K
Q101 C2785
C105 .0033
U101
CA
RA
CB
RB
OUT
VOICE
R105 30K
R106 10K
R104 10K
Q102 C2785
R105 510K
R124 3.3K
NOI
R109 3.3K
Q103 C2785
C105 .0033
NOISE
R111 30K
R110 10K
SB1
Q104 C2785
R112 510K
R108 10K
R103 3.3K
WAVE A
FILT FREQ
GAIN
RES1
RES
PULSE A
R114 1M
C108 .001
FCAP1
VCA1(LIN)
FCAP2
PULSE B
FCAP3
FILT MOD
FCAP4
WAVE B
WAVE SEL
BAL
VCA2(EXP)
R113 1M
C107 .001
CEM3396
R123 10K
C109 4.7uf-25V
C110 .033
C111 .033
C112 .033
C113 470p
ECC/OBERHEIM
2015 Davie Ave.
Commerce,CA 90040-1704

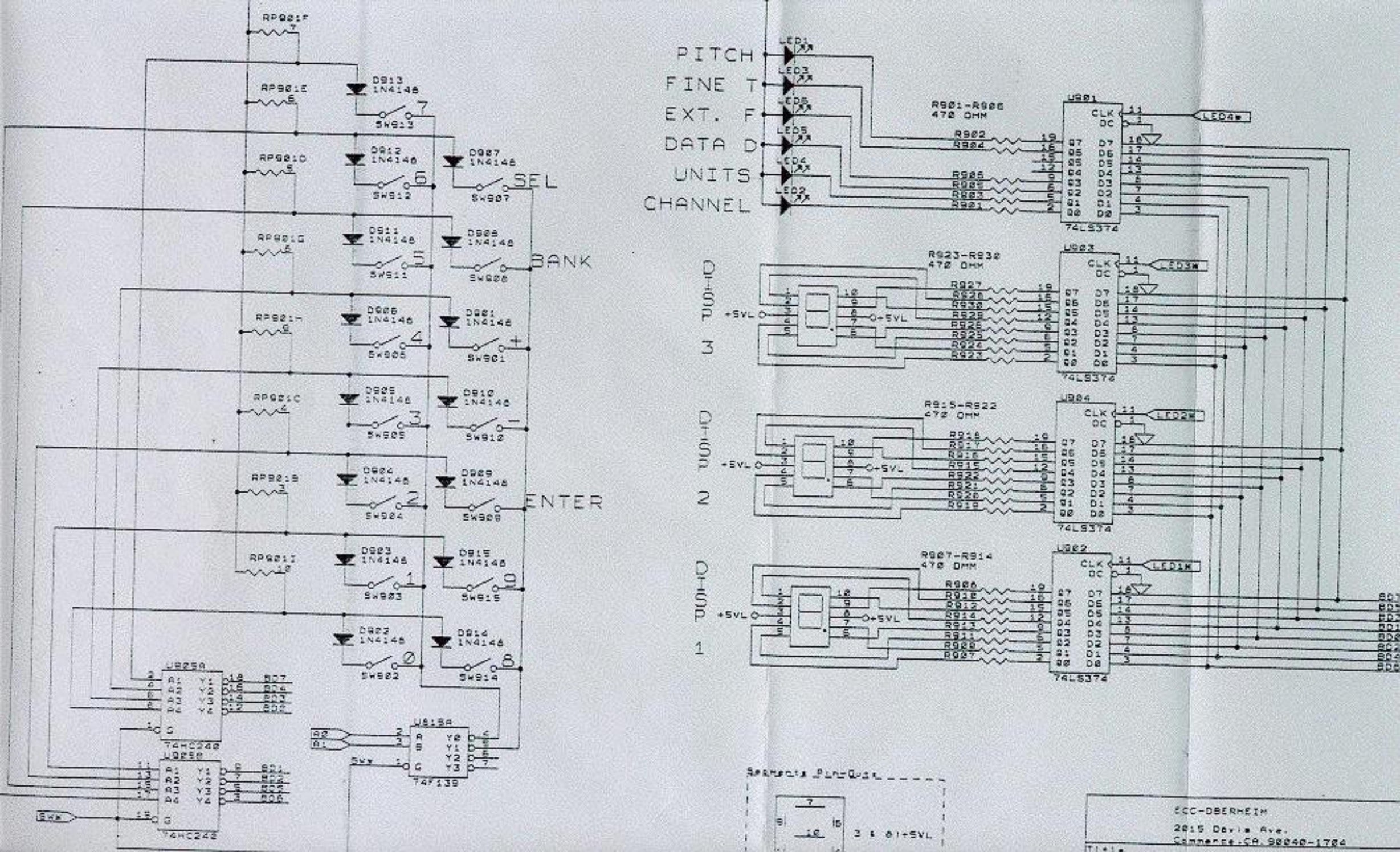

ANG
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4051
+5.6V
VDD
VEE
VSS
INH
ABC
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C214 .033
R215 1M
C217 .006a
C216 .033
R218 1M
C219 .006a
C218 .033
R217 1M
C221 .006a
C220 .033
R216 1M
C223 .006a
C222 .033
R219 1M
C225 .006a
C224 .033
R220 1M
C227 .006a
C226 .033
R221 1M
C229 .006a
C228 .033
R222 1M
SH2
SH1
SH3
SH8
SH8
+5V
SYNC1M
SYNC2M
FAST*
U204A
U204B
U204C
74HC32
R207 10K
C203 470pf
C201 470pf
R201 3.3K
C202 470pf
R203 3.3K
C204 .001
R208 10K
CLK82
GATE82
U204D
R202 4.7K
Q201 C2785
C205 .0033
R205 36K
R206 510K
R204 10K
Q202 C2785
R224 3.3K
R209 3.3K
Q203 C2785
C206 .0033
NOI
NOISE
R211 36K
R212 510K
R210 10K
Q204 C2785
U201
CA
RA
CB
RB
OUT
VOICE
WAVE A
FILT FREQ
GAIN
RES
PULSE A
FCAP1
VCA1(LIN)
PULSE B
FCAP2
FILT MOD
FCAP3
WAVE B
FCAP4
WAVE SEL
BAL
VCA2(EXP)
CEM3396
R223 10K
C209 4.7uf-25V
C210 .033
C211 .033
C212 .033
C213 470p
R214 1M
C208 .001
R213 1M
C207 .001
WAVE
BAL
U202
4051
ECC/OBERHEIM
2015 Davis Ave.


VOICE 3
U303 4051
U302 4051
U304A
U304B
U304C
U304D
74HC32
U301
CEM3396
SH3
SH2
SH1
SYNC1*
SYNC2*
FAST*
GATE3*
CLK3
RA3
RB3
NOI
NOISE
WAVE SEL
BAL
VCA2(EXP)
VCA1(LIN)
PULSE B
FILT MOD
WAVE B
WAVE A
FILT FREQ
GAIN
RES
PULSE A
FCAP1
FCAP2
FCAP3
FCAP4
OUT
CA
RA
CB
RB
+5.6V
-12V
ECC/OBERHEIM
2015 Davie Ave.
Commerce, CA. 90040-1704


U403 4051
U402 4051
U404A 74HC32
U404B 74HC32
U404C 74HC32
U404D 74HC32
U401 CEM3396
+5.6V
-12V
VDD
VSS
VEE
SHC
SHB
SHA
SYNC1*
SYNC2*
FAST*
GATE84
CLK84
NOI
NOISE
RA4
RB4
WAVE SEL
BAL
OUT
VOIC
CA
RA
CB
RB
WAVE A
FILT FREQ
GAIN
RES
PULSE A
FCAP1
VCA1(LIN)
FCAP2
PULSE B
FCAP3
FILT MOD
FCAP4
WAVE B
VCA2(EXP)
C401 470pf
C402 470pf
C403 470pf
C404 .001
C405 .0033
C406 .001
C407 .001
C408 .001
C409 4.7uf-25V
C410 .033
C411 .033
C412 .033
C413 470p
C414 .033
C415 .0068
C416 .033
C417 .0068
C418 .033
C419 .0068
C420 .033
C421 .0068
C422 .033
C423 .0068
C424 .033
C425 .0068
C426 .033
C427 .0068
C428 .033
C429 .0068
R401 3.3K
R402 4.7K
R403 3.3K
R404 10K
R405 36K
R406 10K
R407 10K
R408 10K
R409 3.3K
R410 10K
R411 36K
R412 510K
R413 1M
R414 1M
R415 1M
R416 1M
R417 1M
R418 1M
R419 1M
R420 1M
R421 1M
R422 1M
R423 10K
R424 3.3K
R425 510K
Q401 C2785
Q402 C2785
Q403 C2785
Q404 C2785
ECC/OBERHEIM
2815 Doyle Ave.

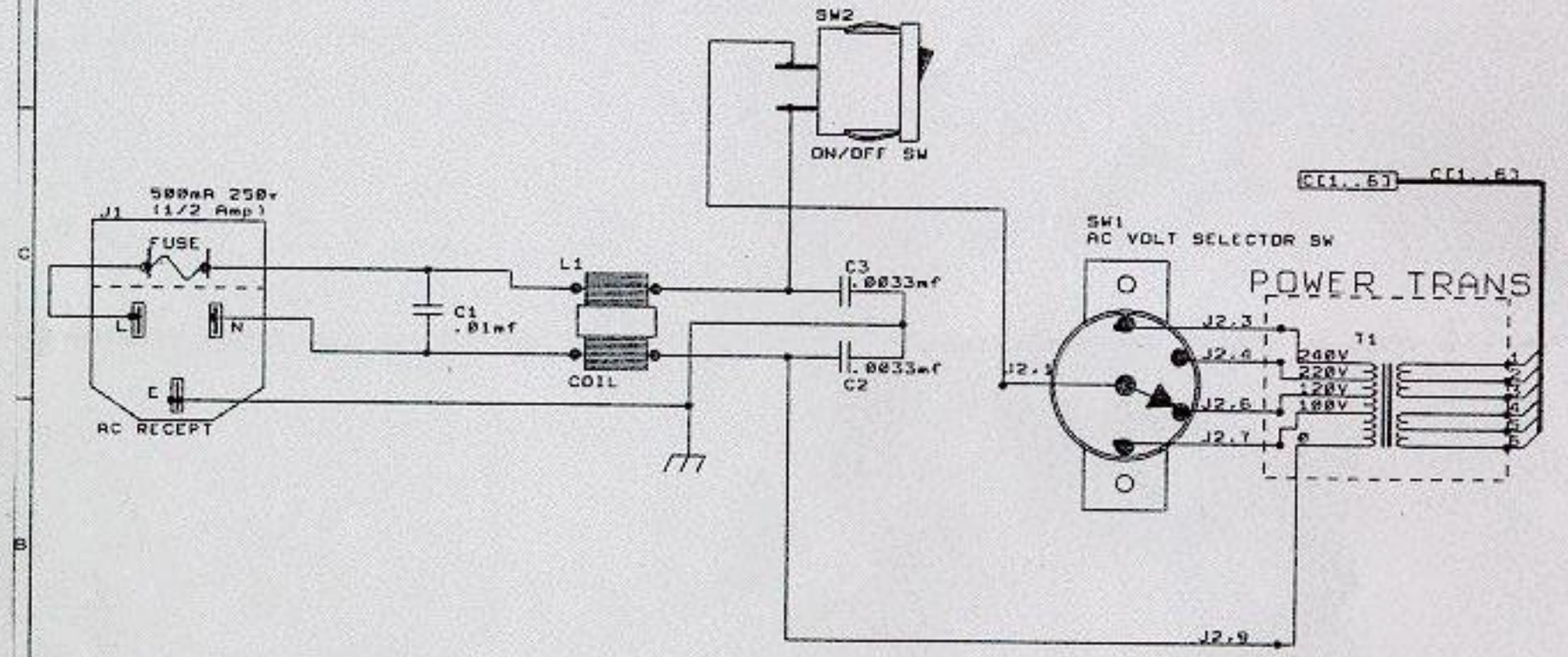

VOICES
CEM3395
74HC32
4051
+5.6V
-12V
GATE5
CLK5
SYNC1M
SYNC2M
FAST1M
RAS
NOI
NOISE
RES5
WAVE SEL
BAL
VCA2(EXP)
VCA1(LIN)
PULSE A
PULSE B
FILT MOD
WAVE A
WAVE B
FILT FREQ
GAIN
OUT
ECC/OBERHEIM
2815 Davie Ave.
Commerce,CA. 90040-1784
Title
Matrix-1000 Voice 5


U603 4051
C25 .1uf
C24 .1uf
VDD
VEE
VSS
SMC
SMB
SMA
SMS
C615 .0068
C614 .033
R615 1M
C617 .0068
C616 .033
R616 1M
C619 .0068
C618 .033
R617 1M
C621 .0068
C620 .033
R618 1M
C623 .0068
C622 .033
R619 1M
C625 .0068
C624 .033
R620 1M
C627 .0068
C626 .033
R621 1M
C629 .0068
C628 .033
R622 1M
U602 4051
+5.6V
-12V
SYNC1*
SYNC2*
FAST*
+5V
U604A
U604B
U604C
74HC32
R607 10K
C603 470pf
C504 .001
CLKB6
GATE6
C502 470pf
R603 3.3K
C505 470pf
CLKA6
R601 3.3K
U604D
R602 4.7K
Q501 C2785
C505 .0033
U601
CA
R605 36K
R606 510K
R604 10K
R605
Q502 C2785
CB
R524 3.3K
NOI
Q503 C2785
C506 .0033
R502 3.3K
NOISE
R511 36K
R610 10K
R505
Q504 C2785
R512 910K
R508 10K
OUT
CB
RB
WAVE A
FILT FREQ & GAIN
RES
PULSE A
FCAP1
VCA1(LIN)
R514 1M
C508 .001
FCAP2
PULSE B
FCAP3
FILT MOD
FCAP4
WAVE B
WAVE SEL
BAL
VCA2(EXP)
R513 1M
C507 .001
CEM3306
R623 10K
C509 4.7uf-25V
C610 .033
C611 .033
C612 .033
C613 .033
470p
ECC/OBERHEIM
2015 Davie Ave.
Commerce,CA 90040-1709
Title

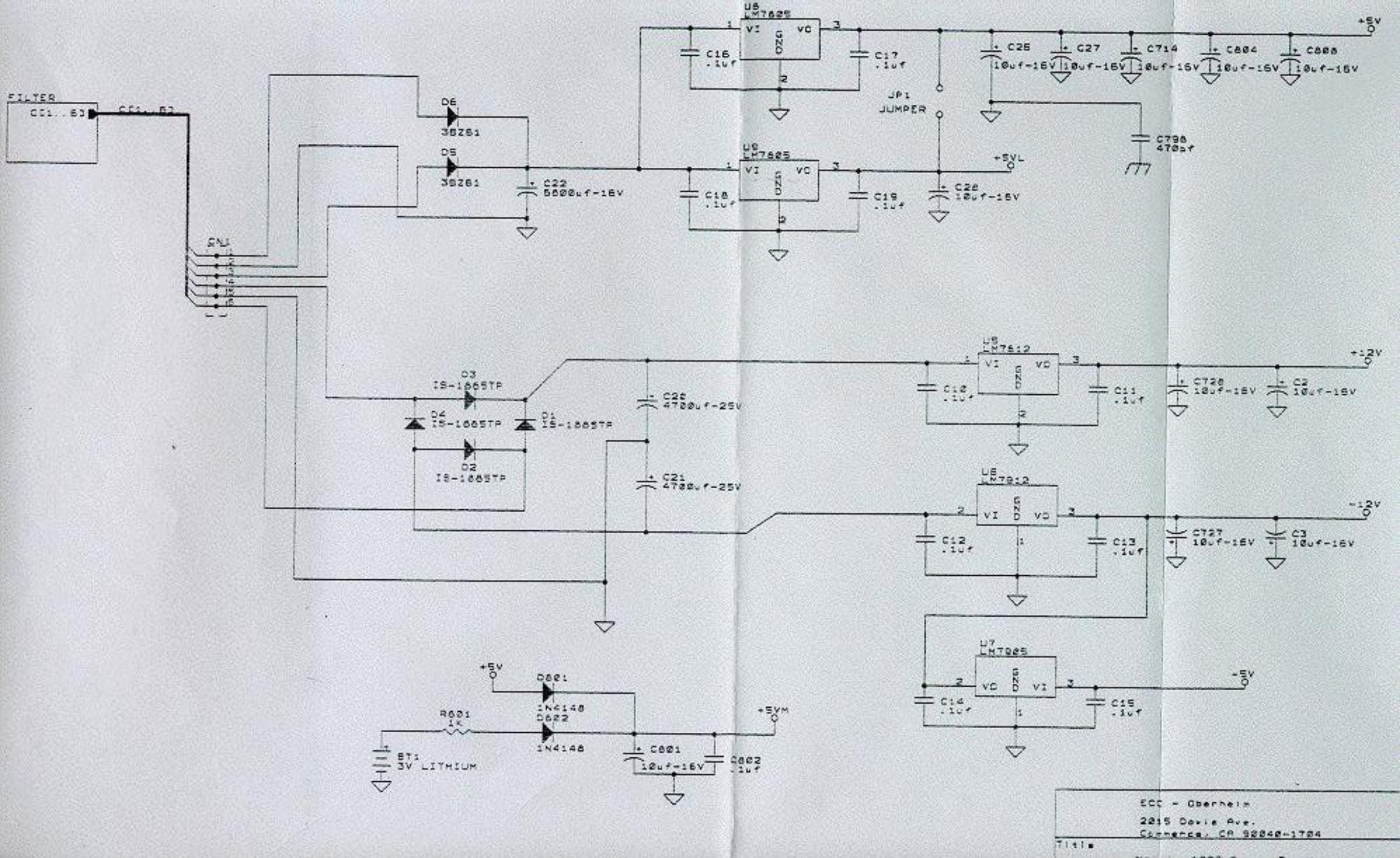

PITCH
FINE T
EXT. F
DATA D
UNITS
CHANNEL
SEL
BANK
ENTER
R901-R906
470 OHM
R907-R914
470 OHM
R915-R922
470 OHM
R923-R930
470 OHM
74LS374
74HC240
74F139
+5VL
LED4W
LED3W
LED2W
LED1W

MATRIX-1000 FILTER (B)

* USE AFTER SERIAL NUMBER 850000 *



ECC/OBERHEIM 2015 Davie Ave. Commerce, CA. 90040-1704		
Title: MATRIX-1000 FILTER (B)		
Size: A	Document Number: 2446	REV: B
Date: October 20, 1988	Sheet: 1 of 1	


FILTER
CC1..8J
CC1..8J
GND
D6
30Z61
D5
30Z61
C22
5600uf-16V
U8
LM7805
VI
VO
GND
C16
.1uf
C17
.1uf
JP1
JUMPER
C25
10uf-16V
C27
10uf-16V
C714
10uf-16V
C804
10uf-16V
C805
10uf-16V
+5V
C798
470pf
U9
LM7905
C18
.1uf
C19
.1uf
C26
10uf-16V
+5VL
D3
IS-1005TP
D4
IS-1005TP
D1
IS-1005TP
D2
IS-1005TP
C20
4700uf-25V
C21
4700uf-25V
U6
LM7812
C10
.1uf
C11
.1uf
C728
10uf-16V
C2
10uf-16V
+12V
U5
LM7912
C12
.1uf
C13
.1uf
C727
10uf-16V
C3
10uf-16V
-12V
U7
LM7905
C14
.1uf
C15
.1uf
-5V
+5V
D801
1N4148
D802
1N4148
R801
1K
BT1
3V LITHIUM
C801
10uf-16V
C802
.1uf
+5VM
ECC - Oberheim
2015 Davie Ave.
Commerce, CA 90040-1704
Title