

JUMPERS AND STUFF

CONNECTORS

I-F	TYPE	DESCRIPTION	PAGE
N11	DB9P	MOUSE/JOYSTICK 1	5
N12	DR9P	MOUSE/JOYSTICK 2	5
N13	RCA-J	RIGHT AUDIO OUTPUT	5
N14	RC0-J	LEFT AUDIO OUTPUT	5
N15	DB23S	EXTERNAL FLOPPY	8
N16	RS232P	RS232 SERIAL PORT	7
N17	DB25S	PARALLEL PRINTER PORT	7
N18	SO DIN	POWER SUPPLY CONNLC CIR	13
N19	DR23P	VIDEO OUTPUT	6
N10	RC1-J	COMPOSITE VIDEO	4
N11	DIL-34	INTERNAL FLOPPY SIGNAL	8
N12	SIL-4	INTERNAL FLOPPY POWER	8
N13	HEM-30	KEYBOARD MEMBRANE	9
N14	SIL-4	INTERNAL FLOPPY POWER	8
N15	HEM-30	KEYBOARD MEMBRANE	9
N16	SIL-4	KEYBOARD STATUS LED'S	9
N17	PCMCIA	PC "MEMORY CARD"	11
9	EDGE-DP	MEMORY BUS EXPANSION	12

SIGNAL GLOSSARY

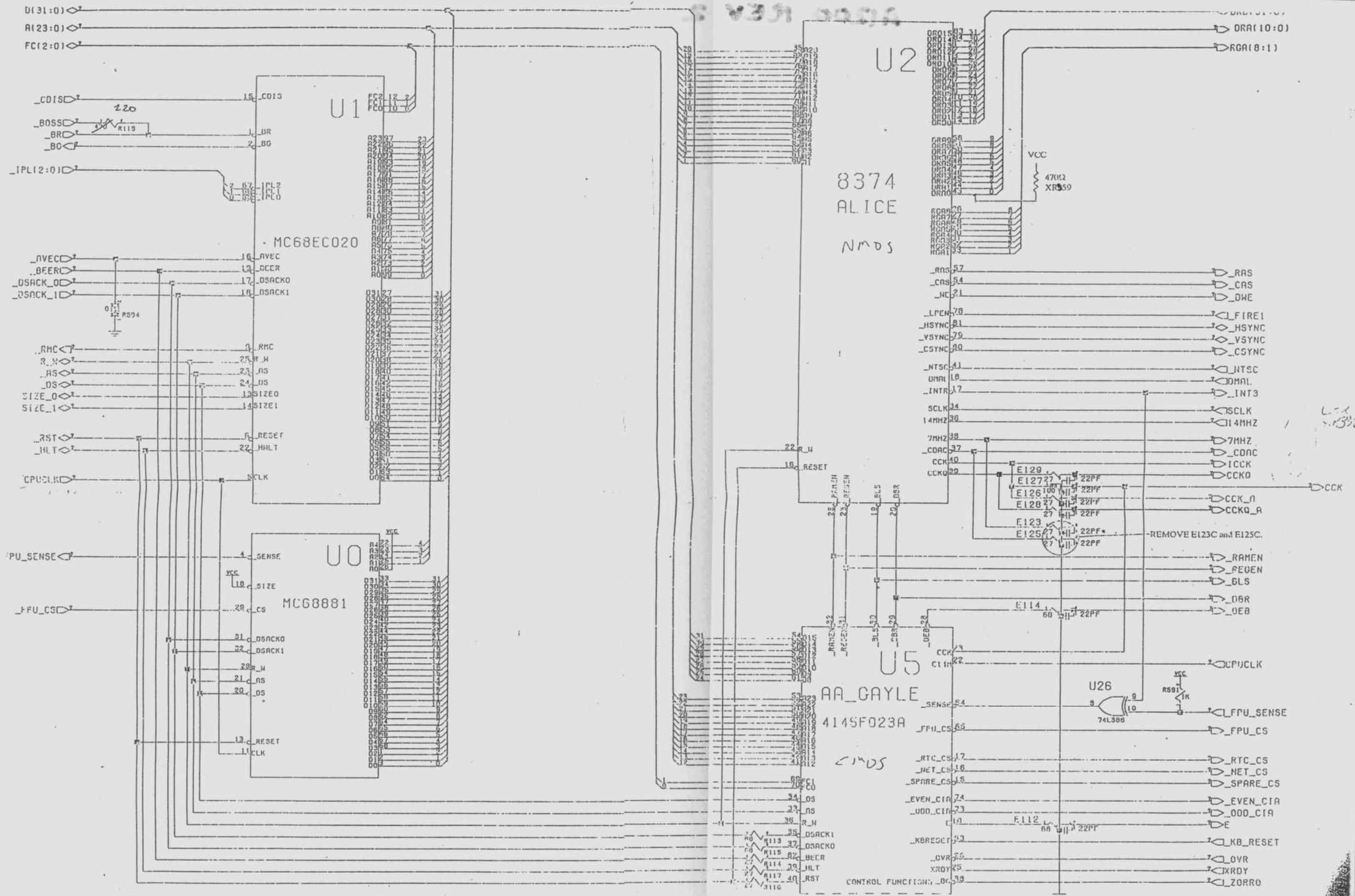
SIGNAL	DESCRIPTION (AREA)	PAGES
28MHZ	20.63636 MHZ MASTER CLOCK	
7MHZ	7.15909 MHZ PROCESSOR CLOCK	
A1(23:1)	PROCESSOR ADDRESS BUS (68000)	
ACK	DATA ACKNOWLEDGE (PARALLEL PORT)	
AS	ADDRESS STROBE (68000)	
AUDIN	AUDIO INPUT (RS232 PORT)	
AUDOUT	AUDIO OUTPUT (RS232 JACK)	
BEER	BUS ERROR (68000)	
BG	BUS GRANT (68000)	
BGACK	BUS GRANT ACKNOWLEDGE (68000)	
BLISS	BLITTER SLOWDOWN (CHIPS)	
BLT	CHIP MEMORY ACCESS (CHIPS)	
BR	BUS REQUEST (68000)	
BUSY	DEVICE BUSY (PARALLEL PORT)	
CASL/U	COLUMN ADDRESS STROBE (DRAM)	
CCK/CCKO	COLOR CLOCK / QUADRATURE (CHIPS)	
CDAC	7.15909 MHZ QUADRATURE CLOCK (CHIPS)	
CINO	MEDIA CHANGE (FLOPPY)	
CLKRD/RW	READ/TIME CLOCK READ / WRITE (RTC)	
COMP	MONOCHROME COMPOSITE VIDEO (VIDEO)	
CSYNC	COMPOSITE SYNC (VIDEO)	
CTS	CLEAR TO SEND (RS232 PORT)	
D15:01	PROCESSOR DATA BUS (68000)	
DIR	STEP DIRECTION (FLOPPY)	
DRKD	DISK READ DATA (FLOPPY)	
DRWD	DISK WRITE DATA (FLOPPY)	
DRWE	DISK WRITE ENABLE (FLOPPY)	
DMAL	CHIP DMA REQUEST LINE (CHIPS)	
DRAM[8:0]	DRAM ADDRESS BUS (DRAM)	
DRD[15:0]	DRAM DATA BUS (DRAM)	
DSR	DATA SET READY (RS232 PORT)	
DTACK	DATA TRANSFER ACKNOWLEDGE (68000)	
DTR	DATA TERMINAL READY (RS232 PORT)	
E	PERIPHERAL ENABLE CLOCK (68000)	
EXTICK	EXPANSION PRESENT / RTC TICK	
FC[2:0]	FUNCTION CODE (68000)	
FIRE0/1	FIRE BUTTON 0/1 (JOYSTICKS)	
HLT	PROCESSOR HALT (68000)	
HSYNC	HORIZONTAL SYNC (VIDEO)	
INDEX	INDEX PULSE (FLOPPY)	
INT[2..3,6]	INTERRUPT REQUEST (CHIPS)	
IORESET	I/O RESET	
IPL[2:0]	INTERRUPT PRIORITY LEVEL (68000)	
KBCLOCK	KEYBOARD CLOCK (KEYBOARD)	
KDDBIA	KEYBOARD DATA (KEYBOARD)	
KBRESET	KEYBOARD RESET (KEYBOARD)	
LDS/UDS	UPPER / LOWER DATA STROBES (68000)	
LED	POWER ON LED / AUDIO FILTER DISABLE	
LEFT/RIGHT	LEFT RIGHT AUDIO (AUDIO)	

IGNAL	DESCRIPTION (AREA)	PAGES
PEN	LIGHT PEN TRIGGER (JOYSTICKS)	
TR	MOTOR ON (FLOPPY)	
TRO	MOTOR OH - DRIVE 0 (FLOPPY)	
QVZMH	MOUSE Q QUADRATURE V/Z/H (JOYSTICKS)	
VZMH	MOUSE I QUADRATURE V/Z/H (JOYSTICKS)	
VI	OVERLAY ROM OVER RAM	
VR	OVERRUN SYSTEM DECODING	
WFLSH	CLOCK PIXEL SHIFT (VIDEO)	
QIYZOY	PUT LINES O/X/Y (JOYSTICKS)	
CTIXLY	SET LINES I/X/Y (JOYSTICKS)	
QUIT	PAPER OUT (PARALLEL PORT)	
PT[7:0]	PARALLEL PORT DATA (PARALLEL PORT)	
ROMEN	ROM ENABLE (CHIPS)	
EGEN	CHIP REGISTER ENABLE (CHIPS)	
DS0/1	ROM ADDRESS SIRORE (RAM)	
DY	DRIVE READY (FLOPPY)	
RESET	GENERAL RESET	
RD[0:11]	REGISTER ADDRESS RDG (CHIPS)	
C/B	RED / GREEN / BLUE (VIDEO)	
RING	RING INDICATE (RS232 PORT)	
ROMEN	ROM ENABLE (ROM)	
TS	REQUEST TO SEND (RS232 PORT)	
SI	PROCESSOR RESET (68000)	
XD	RECEIVE DATA (RS232 PORT)	
WR	PROCESSOR READ/WRITE (68000)	
SEL	SELECT (PARALLEL PORT)	
EL[3:0]	DRIVE SELECT (FLOPPY)	
SD	SIDE SELECT (FLOPPY)	
STEP	STEP IN/OUT COMMAND (FLOPPY)	
ZRO	TRACE ZERO SENSE (FLOPPY)	
XD	TRANSMIT DATA (RS232 PORT)	
MR	VALID MEMORY ADDRESS (68000)	
PR	VALID PERIPHERAL ADDRESS (68000)	
SYNC	VERTICAL SYNC (VIDEO)	
WE	WRITE ENHOLE (DRAM)	
PROJ	WRITE PROJECT SENSE (FLOPPY)	
CLK	EXTERNAL CENLOCK CLOCK (VIDEO)	
CLKEN	EXTERNAL CLOCK ENABLE (VIDEO)	
RDY	EXTERNAL DATA READY	

REVISION HISTORY

KEY COMPONENTS

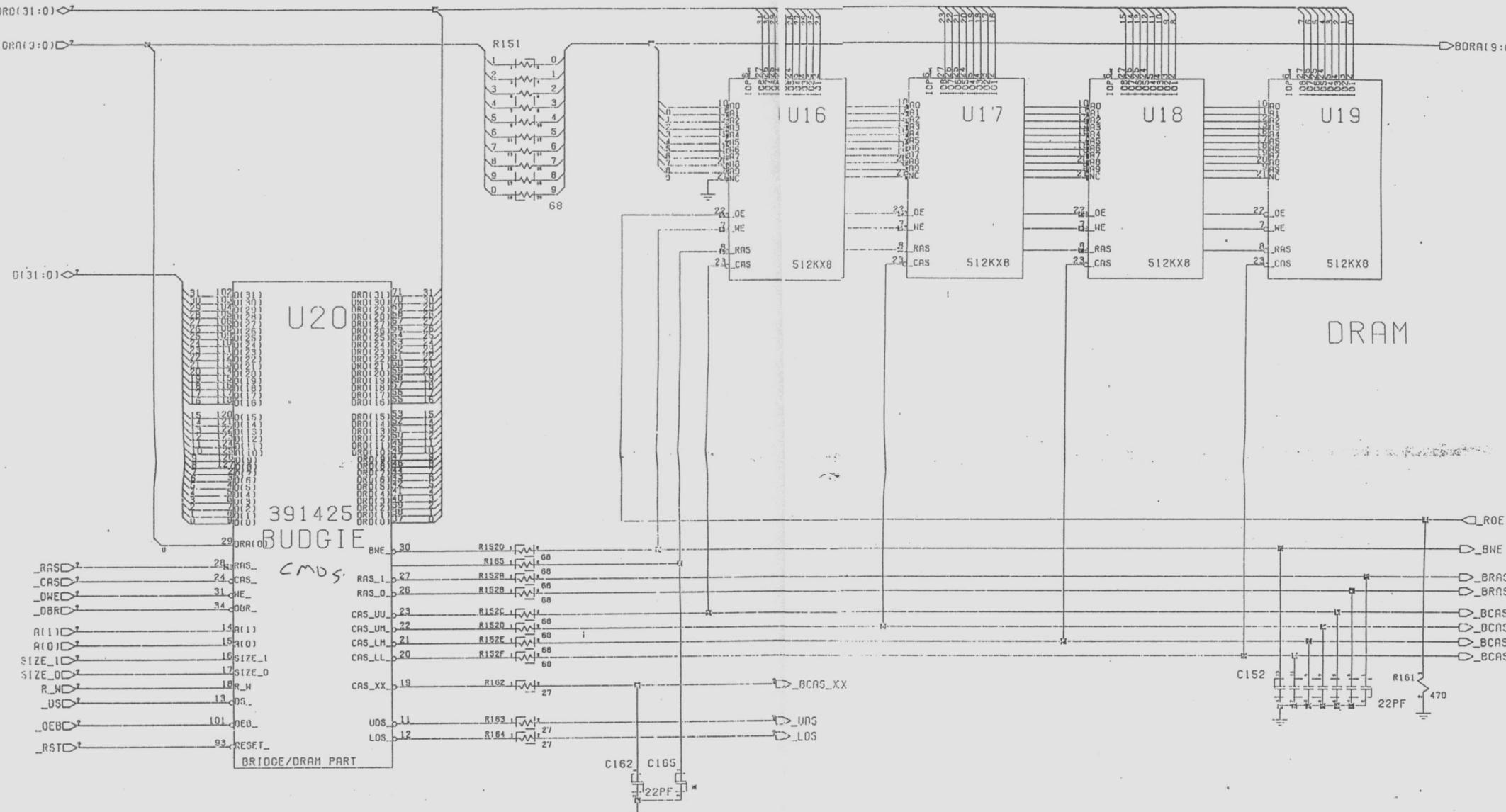
REF	CHIP	DESCRIPTION	PAGE
U1	68FEC02	68FEC020 UP/16MHz	2
U2	B374	ALICE (AMICUS)	2
U3	8364	PAULA	5
U4	1203	LISA (AA DENISE)	4
U5	F0022X	AA DAYLE (CBM ASIC)	2,8,11
U6A-B	PSST	ROM 512KX16, 150 NS	10
U7-8	8520	AMIGA V(A, 1 MHz)	7
U10-11	20F400	4MBIT FLASH MEMORY	10
U12	CXA1143SONY	VIDEO ENCODER	4
U13	6570-38AMICA	KEYBOARD MPU	9
U14	NES557	RESET TIMER	9
U15	UF347	MMOS OP-AMP	5
	TLO84	DICMOS OP-AMP	ALT
U16-17	RSST	DRAM 512KX6, BONS	3
U18-19	RSST	DRAM 512KX8, OPTIONAL	3
U20	3912???	BRIDGETTE (INCR ASIC)	2
U28	1480	EIA LINE DRIVER	7
U29	1489	EIA LINE RECEIVER	7
U30	BT101	TRIPLE 8-BIT VIDEO DAC	4
X1	OSC	TTL 28.63636 MHZ NTSC	2
	OSC	TTL 28.37512 MHZ PAL	ALT
Y451	XTAL	4.433619MHZ PAL BURST	4
Y621	XTAL	3MHZ CERAMIC RESONATOR	9
X2	UD3626	PAL VIDEO MODULATOR	4
	VA3424	NTSC VIDEO MODUL.-TOR	4



CHANNEL 7
A1200 REV 2 PCR

NOTE: VARIOUS COMPONENTS ARE FOR EXH. PURPOSE
AND MAY BE LOANED WITH CURTAIN

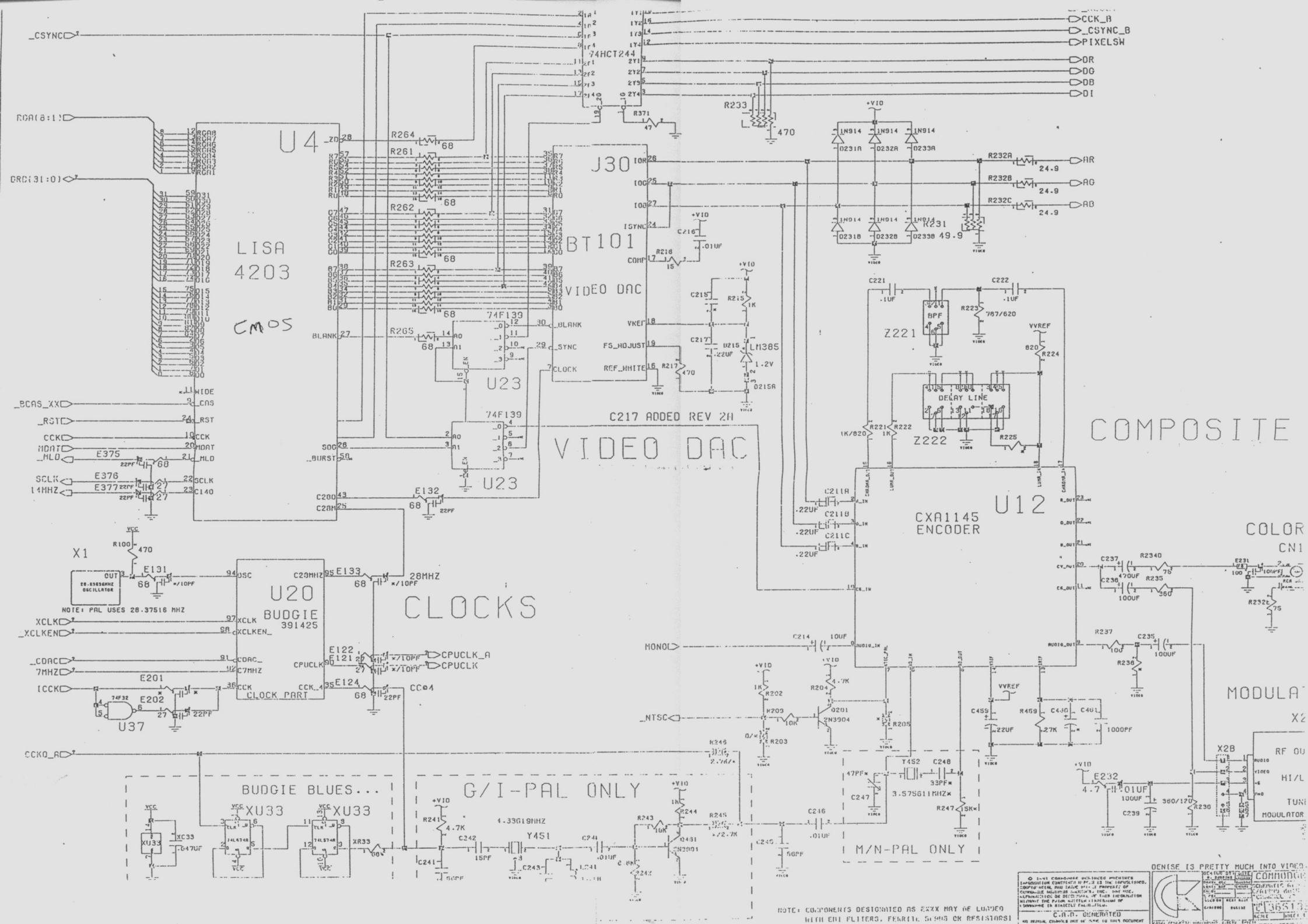
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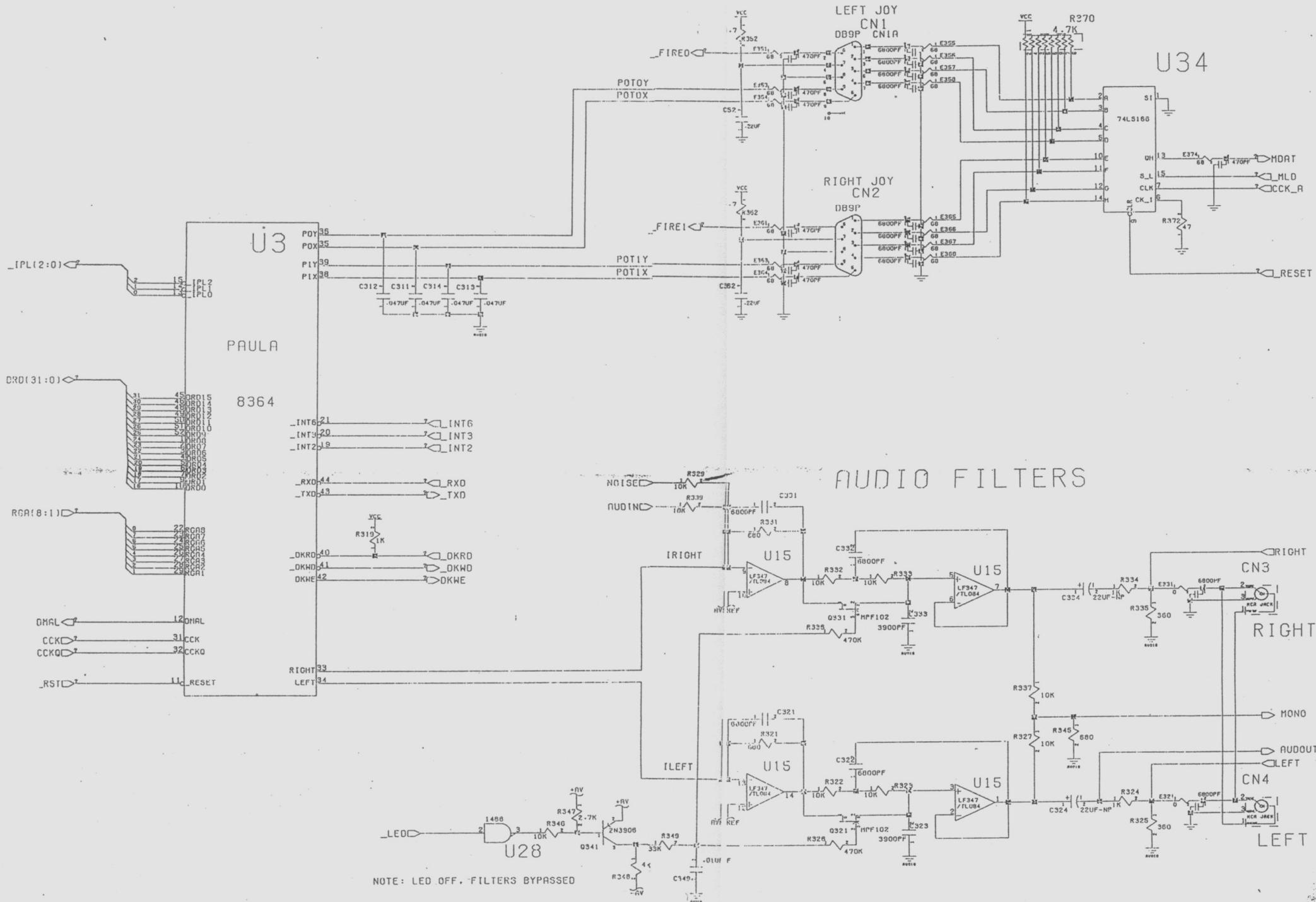
DRAM DECOUPLING

A1200 REV 2 PCB





MOUSE/JOYSTICK PORTS



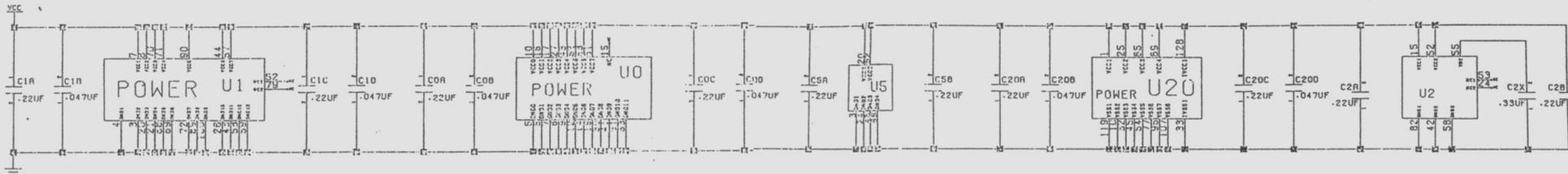
NOTE: LED OFF, FILTERS BYPASSED

PAUL PREFERENCES THE TRADITIONAL MODES

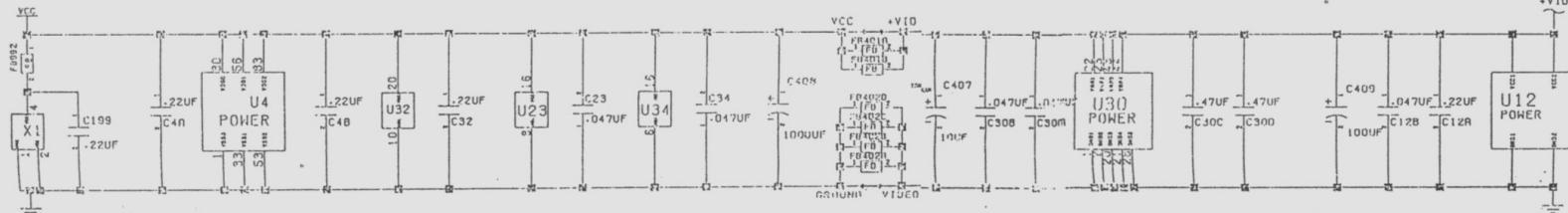
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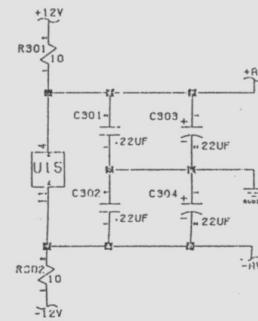
GENERAL DECOUPLING



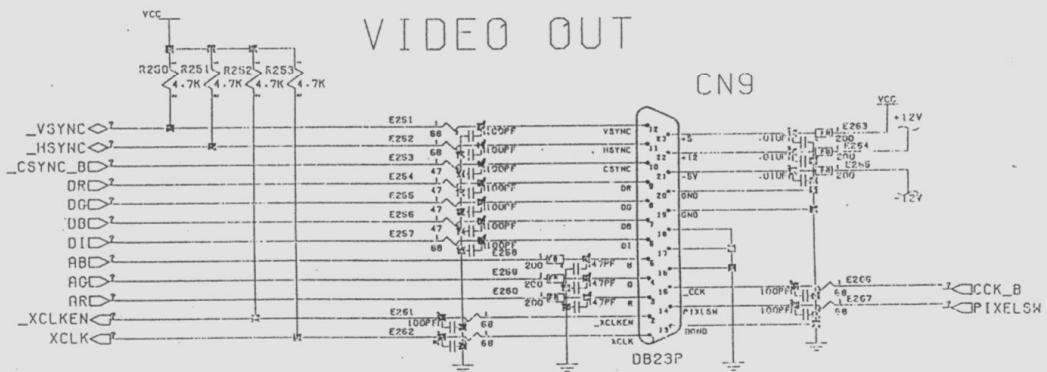
VIDEO DECOUPLING



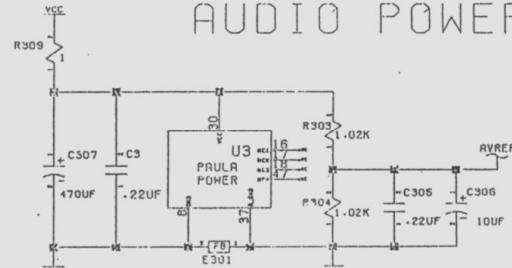
AUDIO DECOUPLING



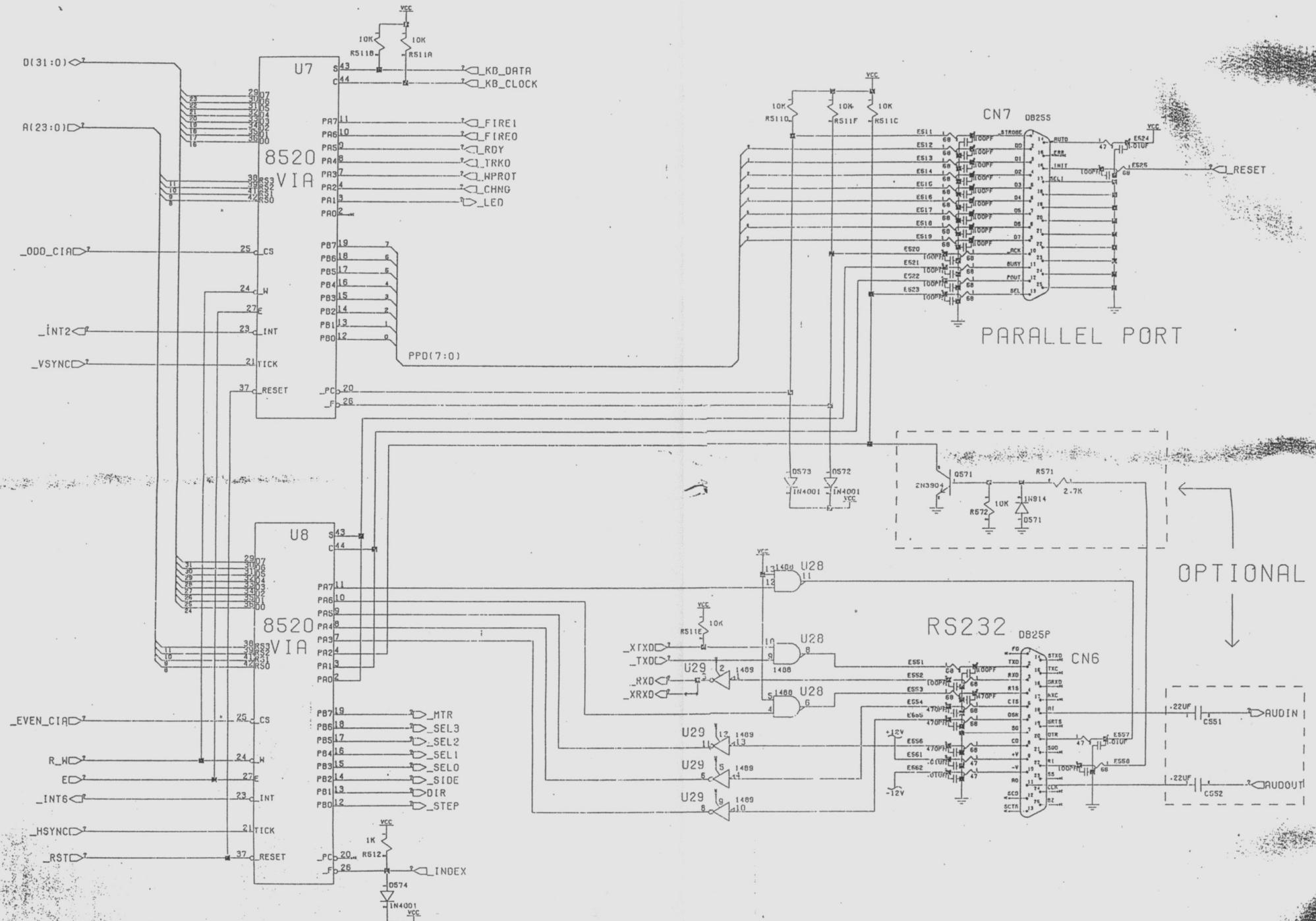
VIDEO OUT



AUDIO POWER



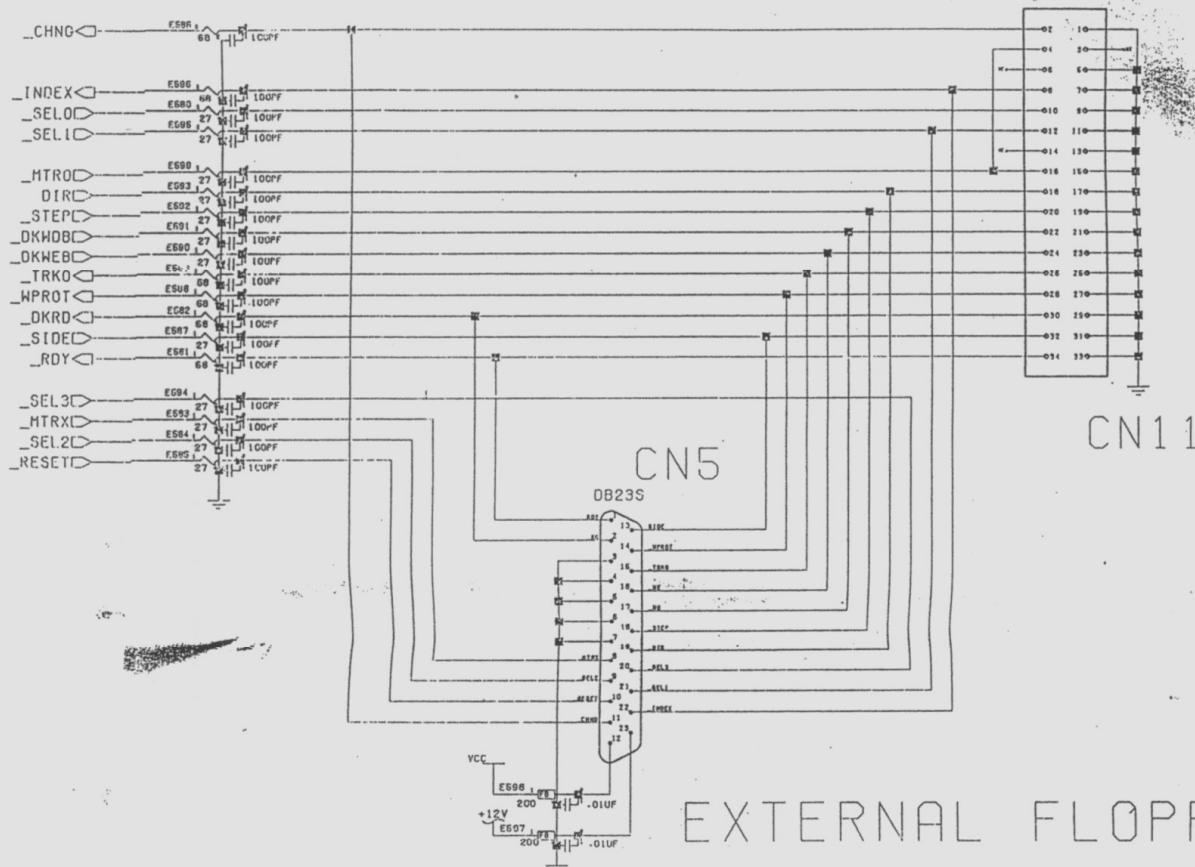
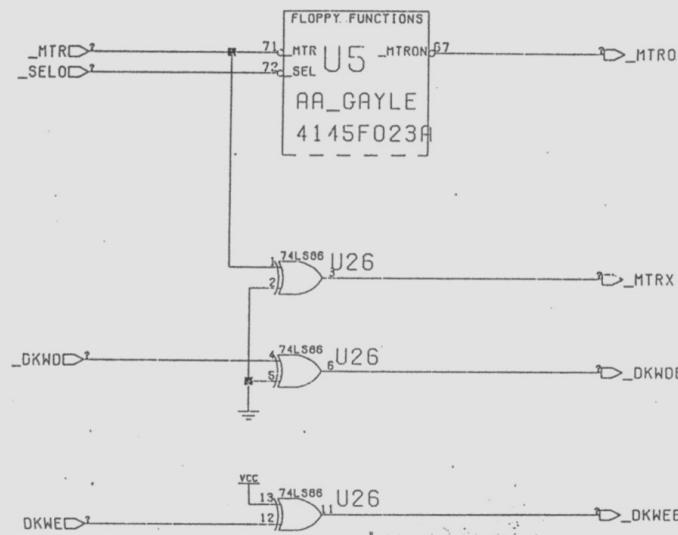
NOTE: COMMON GROUND NEAR JACKS



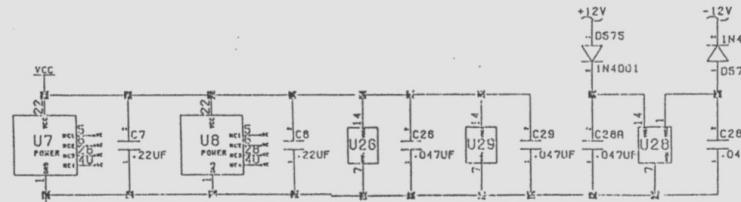
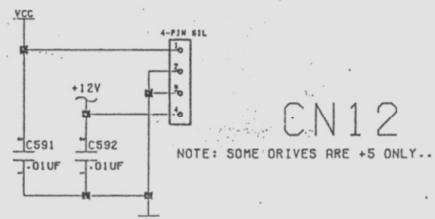
A1200 REV 2 PCB

FLOPPY LOGIC

INTERNAL FLOPPY



FLOPPY POWER



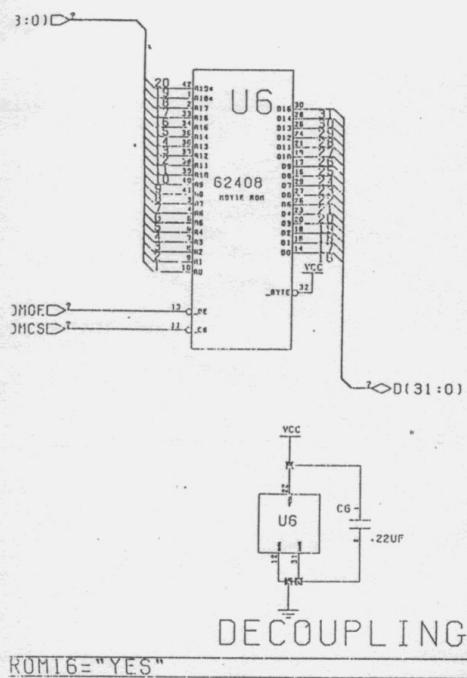
DECOUPLING

11200 REV 2 PCB

THE REST OF THE FLOPPY SYSTEM
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COMMODORE
11200 REV 2 PCB
11200 MAIN BOARD
CHINNELL 2
11200 WEST ROAD
COMMODORE COMPUTER SYSTEMS
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C 3651331



ROM16="YES"

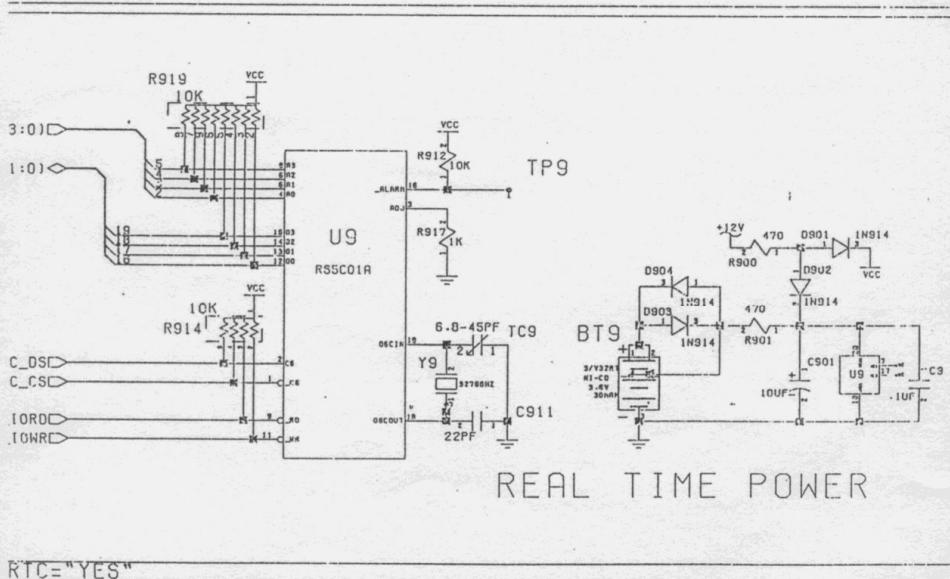
IF ROM32="YES"

DECOUPLING

DECOUPLING

16 AND 32-BIT SOCKETS MAY OVERLAP

OPTIONAL FLASH MEMORY

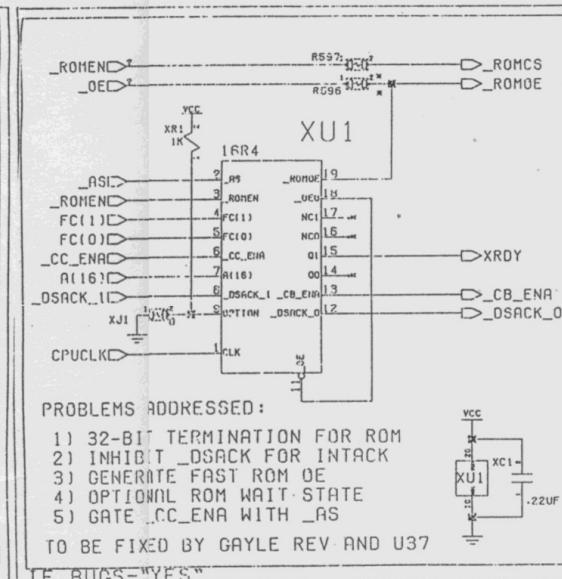


REAL TIME POWER

RTC="YES"

OPTIONAL REAL-TIME CLOCK/CALENDAR

1200 REV 2 PCB



PROBLEMS ADDRESSED

- 1) 32-BIT TERMINATION FOR ROM
 - 2) INHIBIT _DSACK FOR INTACK
 - 3) GENERATE FAST ROM OE
 - 4) OPTIONAL ROM WAIT STATE
 - 5) GATE _CC_ENA WITH _AS

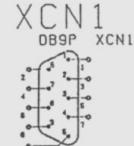
TO BE FIXED BY GAYLE REV AND U3

IF BUGS="YES"

TO BE FILMED BY
THE BIGS = "YES"

MORE JOY

HOLES & C.



THIS SECTION DEFINE AN ADDITIONAL DB9/ HEADER PAIR ON A BREAKAWAY PART OF THE SO THAT A SHORTER PCB CAN BE USED.

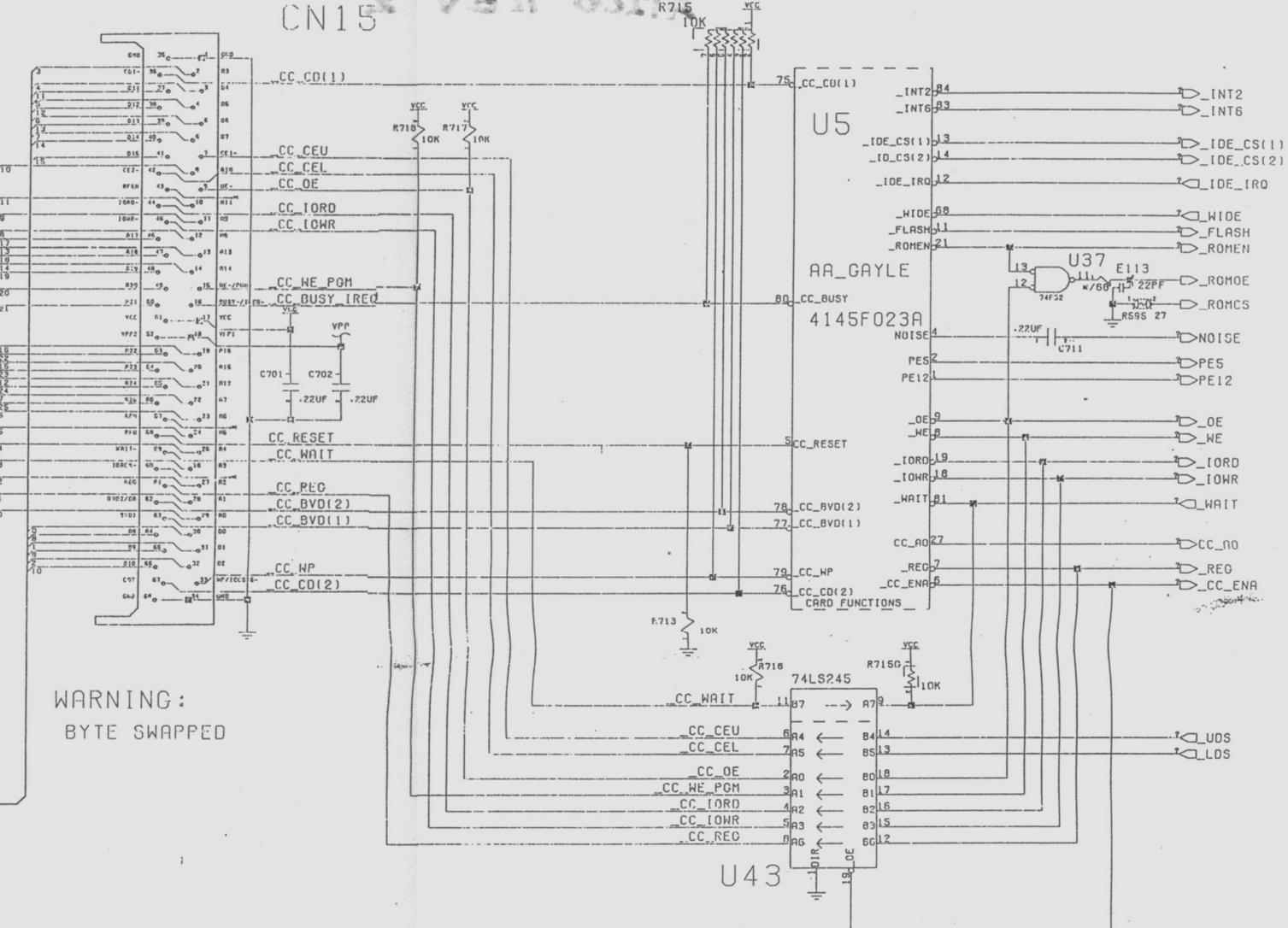
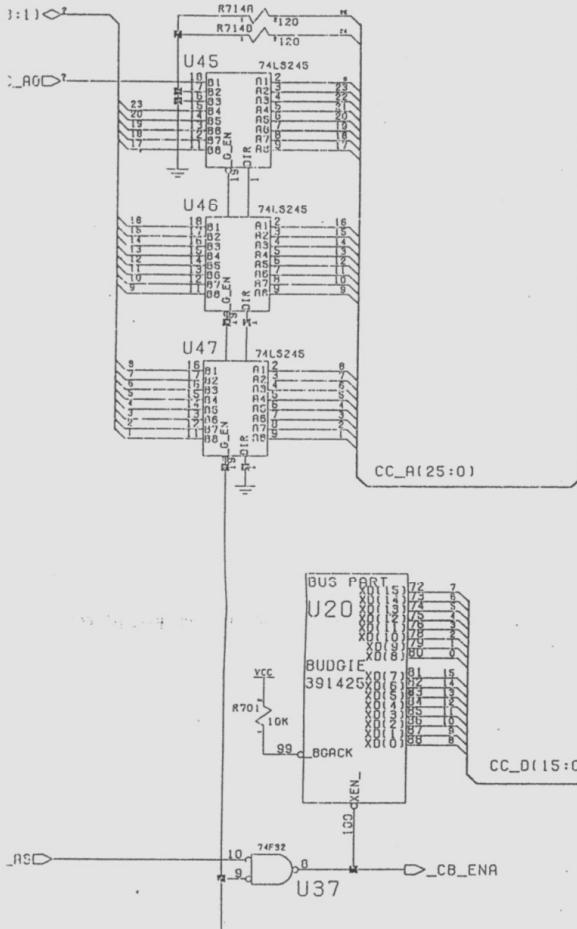
IF SHORT = "YES"

SHORT PCB, TRIX

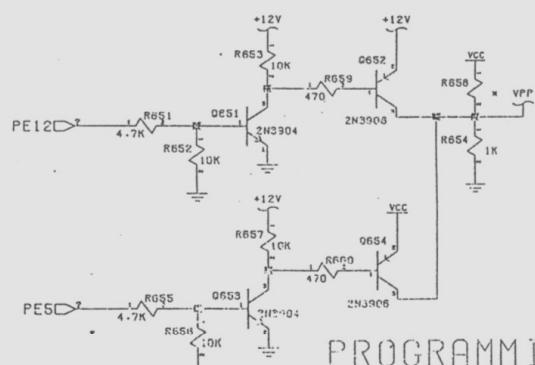
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MEMORY CARD

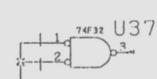
CN15



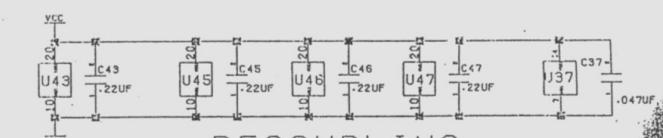
WARNING:
BYTE SWAPPED



PROGRAMMING VOLTAGE



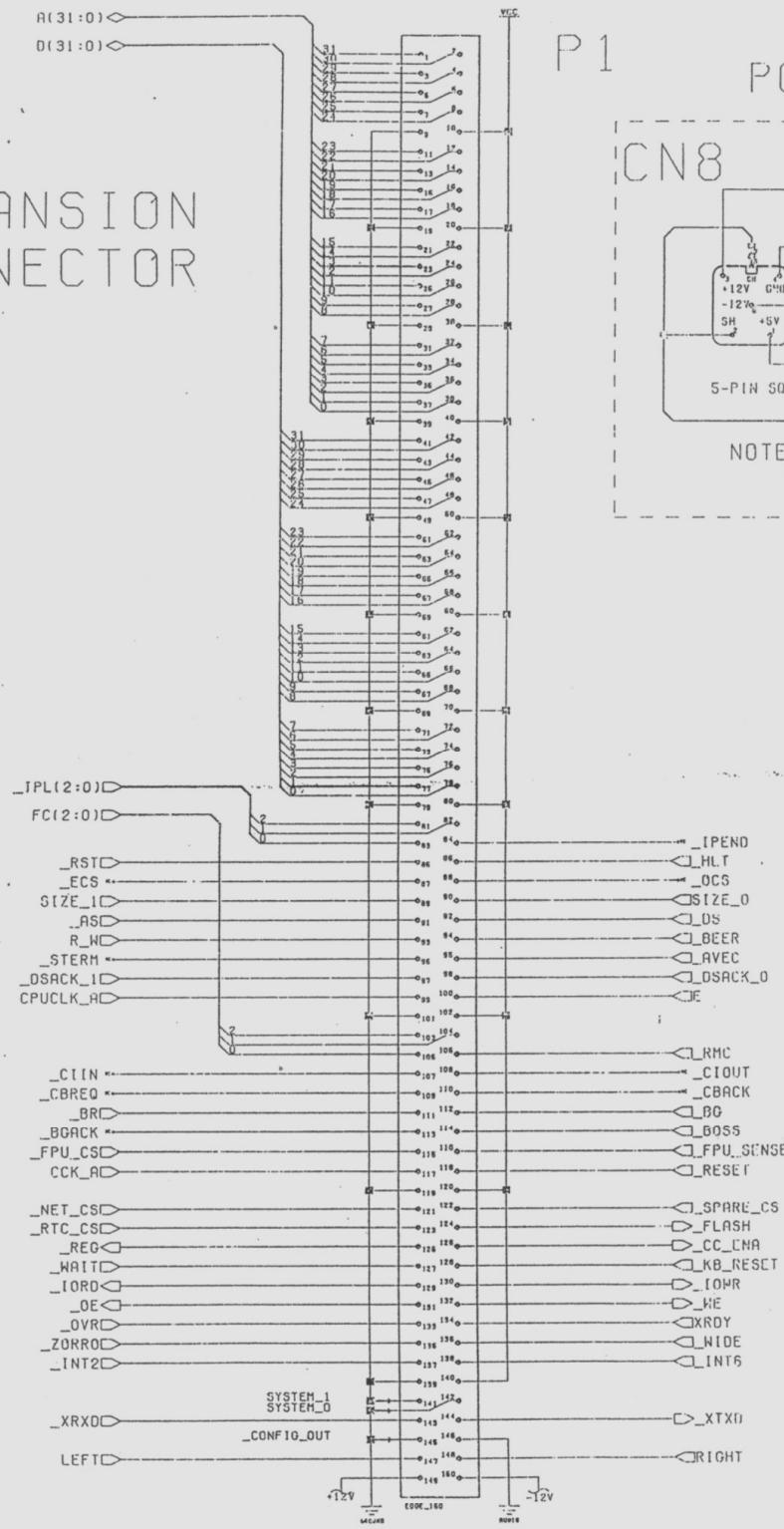
SPARE



DECOUPLING

200 REV 2 PCB

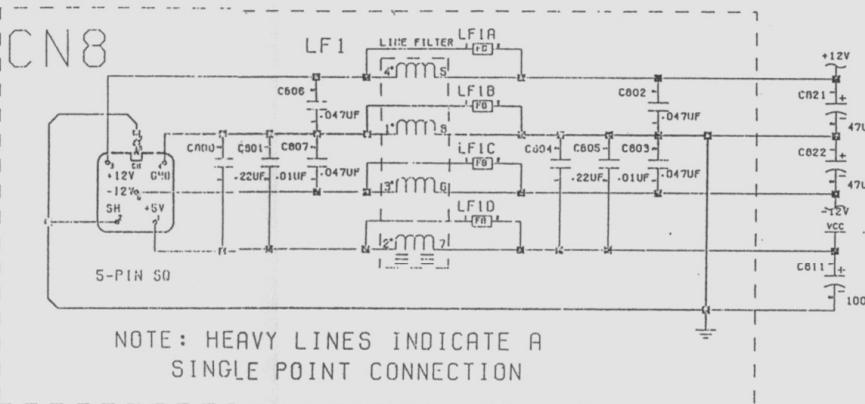
EXPANSION CONNECTOR



P 1

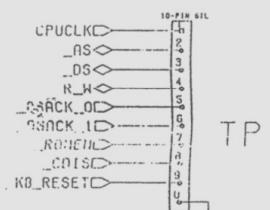
POWER INPUT FILTER

HOLMES & CO

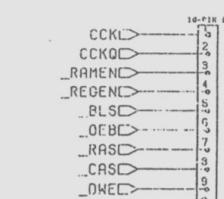


NOTE: HEAVY LINES INDICATE A
SINGLE POINT CONNECTION

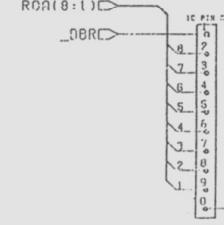
TEST ACCESS



TP



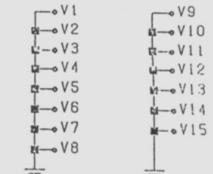
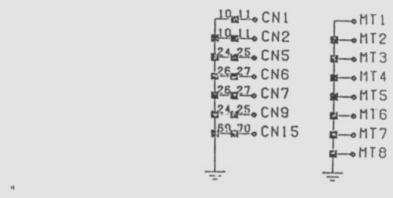
TP2



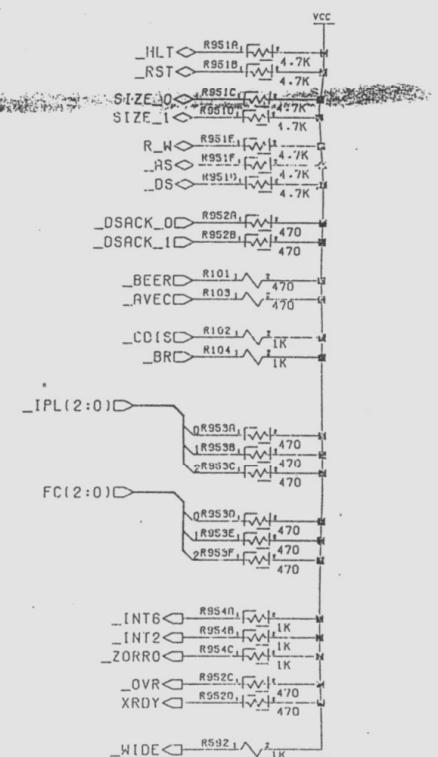
TP 2

SYSTEM CONFIGURATION BITS

SYSTEM 1 = 0 = CPU/CPUCLK
 0 0 ECO20/14MHz
 0 1 O20/14MHz
 1 0 O30/14MHz
 ↑ 1 O30/14MHz



TERMINATION



Gayle

/ /
D D
S S

G	/ /	A A
A A A A A A A A A A A A A A A A R H / C R C / /		
2 2 2 2 1 1 1 1 D 1 1 1 1 S L B K / K D A		
3 2 1 0 9 8 7 6 3 5 4 3 2 T T G O W I S S		

D15	54	32	/RAMEN
D14	55	31	/REGEN
D13	56	30	/BLS
D12	57	29	/DBR
D11	58	28	/OEB
D10	59	27	CC_A0
D9	60	26	/OVR
D8	61	25	XRDY
VCC2	62	24	GND2
/KBRESET	63	23	CCK
/SENSE	64	22	C14M
/FPU_CS	65	21	/ROMEN
GND4	66	20	VCC1
/MTRON	67	19	/IORD
/WIDE	68	18	/IOWR
FC1	69	17	/RTC_CS
FC0	70	16	/NET_CS
/MTR	71	15	/SPARE_CS
/SEL	72	14	/IDE_CS(2)
/ODD_CIA	73	13	/IDE_CS(1)
/EVEN_CIA	74	12	/IDE_IRQ
	75 76 77 78 79 80 81 82 83 84 1 2 3 4 5 6 7 8 9 10 11		

/ / / / / / / / / / / P P G N C / / / / E /		
C C C C C C W B I I E E N O C C R W O F		
C C C C C C A E N N 1 5 D I _ C E E E L		
— — — — — I R T T 2 1 S R _ G A		
C C B B W B T R 6 2 E E E S		
D D V V P U S N H		
I 2 D D S E A		
1 2 Y T		

Alice

/ /
 V D D D D D D D D G N C 7 C 4 S R
 N C R R R R R R R R N T C C M D M A C G
 C C A A A A A A A A A A D S C K H A H 2 L A
 1 2 8 7 6 5 4 3 2 1 0 2 C K Q z C z 0 K 1

	53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33		
/CAS	54	32	RGA2
VBB	55	31	RGA3
DRA9	56	30	RGA4
/RAS	57	29	RGA5
GND3	58	28	RGA6
A19	59	27	RGA7
A1	60	26	RGA8
A2	61	25	/RAMEN
A3	62	24	NC2
A4	63	23	/REGEN
A5	64	22	R_W
A6	65	21	/WE
A7	66	20	/DBR
A8	67	19	/BLS
A9	68	18	DMAL
A10	69	17	/INTR
A11	70	16	/RESET
A12	71	15	VCC1
A13	72	14	DRD0
A14	73	13	DRD1
A15	74	12	DRD2
	75 76 77 78 79 80 81 82 83 84 1 2 3 4 5 6 7 8 9 10 11		

A A A / / / G D D D D D D D D D D D D D D
 1 1 1 L V C H N R R R R R R R R R R R R R R R R
 6 7 8 P S S S D D D D D D D D D D D D D D D D D
 E Y Y Y 1 1 1 1 1 1 1 9 8 7 6 5 4 3
 N N N N 5 4 3 2 1 0
 C C C

Lisa

G		C		G
N		2		N
D R R R R R G G G G	8	G G G G B B B B B D		
3 4 3 2 1 0 7 6 5 4 0	3 2 1 0 7 6 5 4 3 2			

	53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33		
R5	54	32	B2
R6	55	31	B1
VCC2	56	30	VCC1
R7	57	29	BO
/BRST	58	28	ZD
D31	59	27	BLANK
D30	60	26	SOG
D29	61	25	C28M
D28	62	24	/RST
D27	63	23	C14O
D26	64	22	SCLK
D25	65	21	/MLD
D24	66	20	MDAT
D23	67	19	RGA1
D22	68	18	RGA2
D21	69	17	RGA3
D20	70	16	RGA4
D19	71	15	RGA5
D18	72	14	RGA6
D17	73	13	RGA7
D16	74	12	RGA8
	75 76 77 78 79 80 81 82 83 84 1 2 3 4 5 6 7 8 9 10 11		

D D D D D D D D V D G D D D D D D / C W
1 1 1 1 1 1 1 9 8 C 7 N 6 5 4 3 2 1 0 C C I
5 4 3 2 1 0 C D A K D
3 1 S E