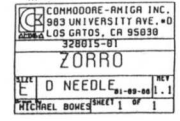
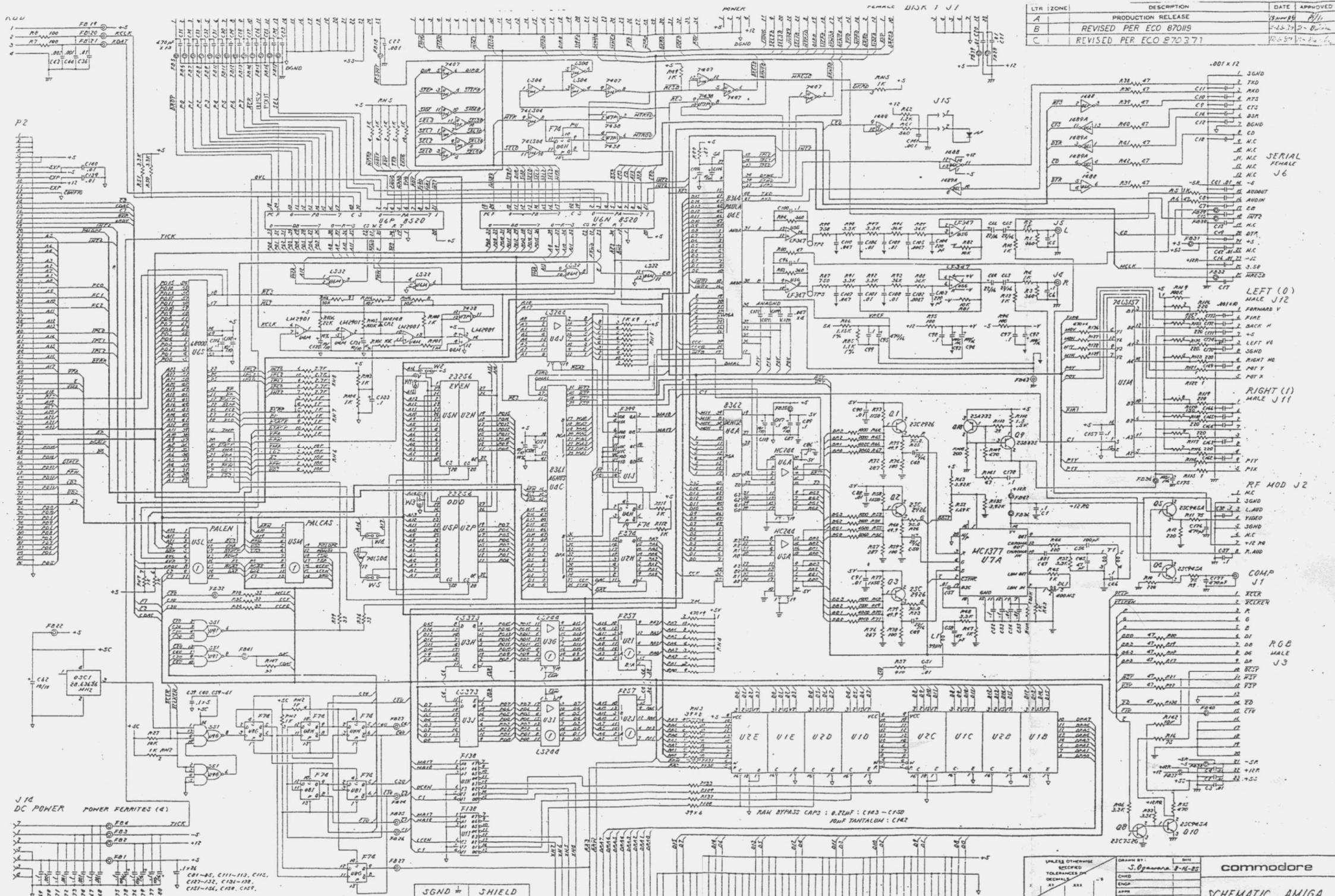


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 CORP. OF JAPAN. THE USER ASSUMES
 ALL LIABILITY FOR ANY DAMAGE TO
 HIS PROPERTY OR PERSONAL INJURY
 CAUSED BY THE USE OF THIS
 PRODUCT. THE USER AGREES TO
 HOLD SEIKO EPSON CORP. HARMLESS
 FROM ALL SUCH LIABILITY. THE USER
 AGREES TO HOLD SEIKO EPSON CORP.
 HARMLESS FROM ALL SUCH LIABILITY.
 NO WARRANTY IS EXPRESSED OR IMPLIED.

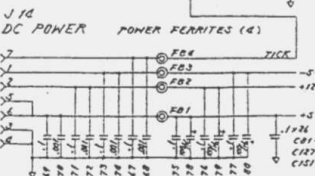


RAM EXPANSION P1

① - THIS IC MOVED UP TO RAM ROM BOARD



P2



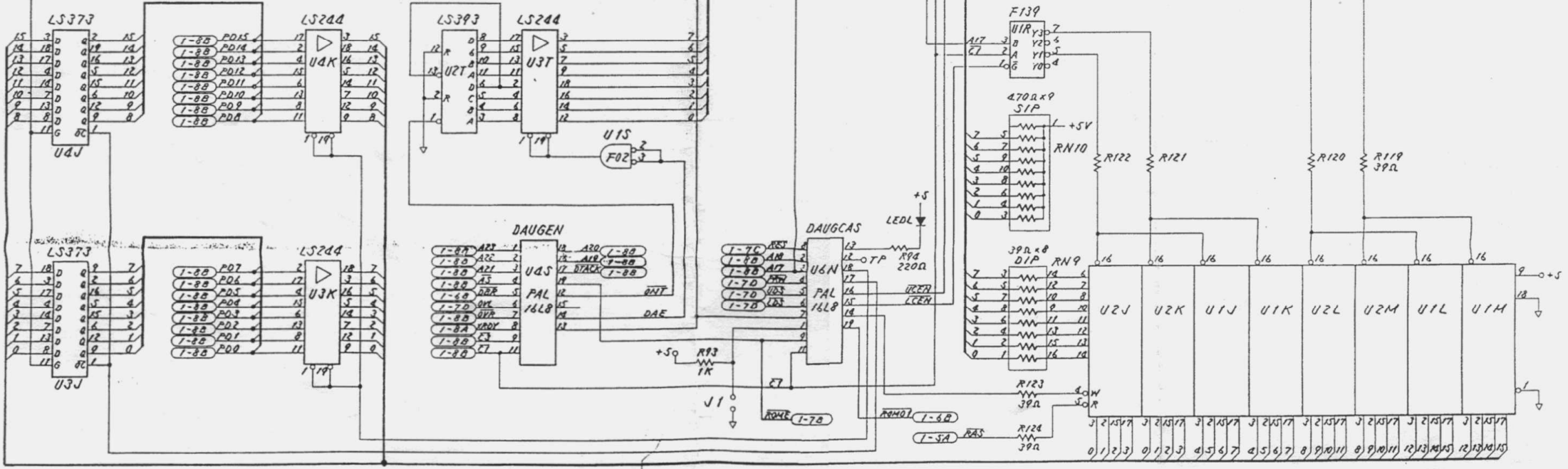
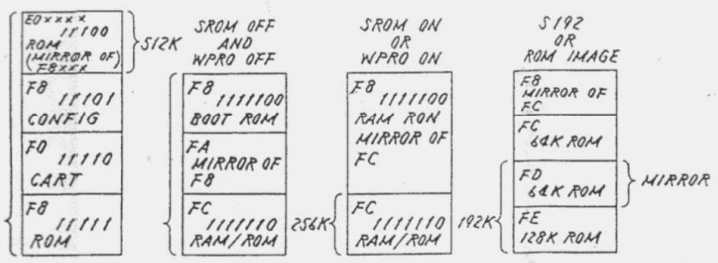
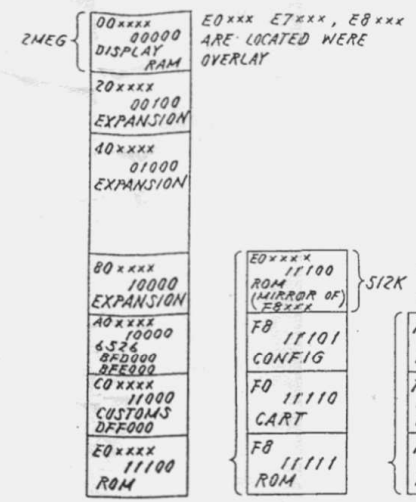
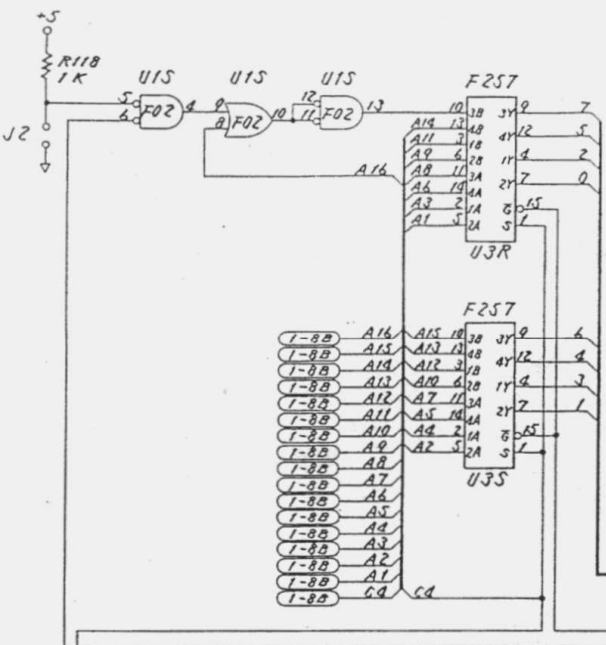
① = THIS IC MOVED UP TO RAM ROM BOARD.

SGND	SHIELD
DGND	DIGITAL
VGND	VIDEO
AGND	AUDIO

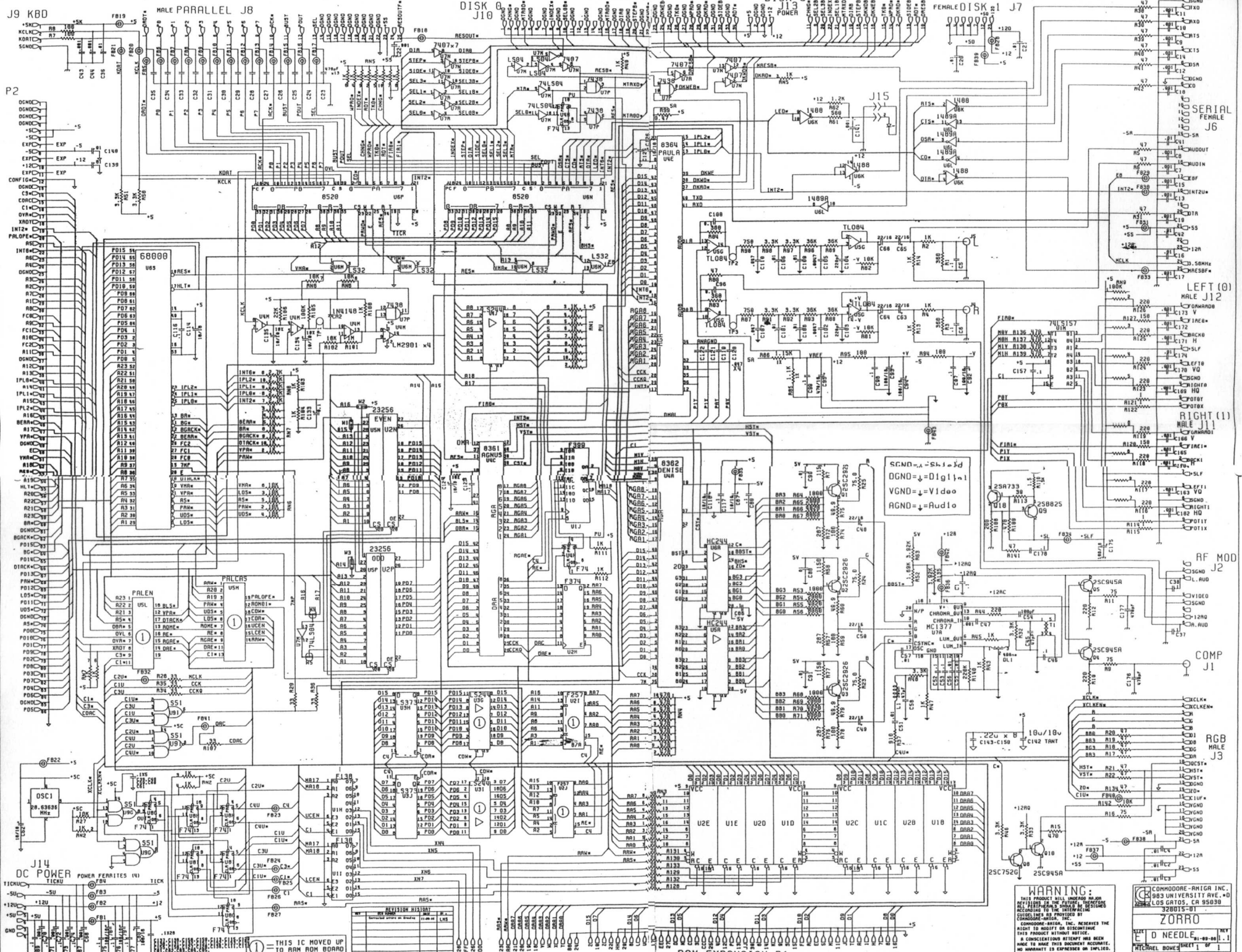
RAM EXPANSION P1

UNLESS OTHERWISE SPECIFIED TOLERANCES ON DECIMALS ARE:	RESISTORS 1% CAPS 1%	DATE 8-16-85	comodore
DRAWN BY J. O. PARRISH		DESIGNED BY J. O. PARRISH	
SCHEMATIC, AMIGA			SIZE 328015
SCALE NONE			

LTR	ZONE	DESCRIPTION	DATE	APPROVED
		SEE SHEET 1	11/5/84	T. T. Okada



UNLESS OTHERWISE SPECIFIED TOLERANCES ON: DECIMALS: .XX .XXX .CS MATERIAL: _____ FINISH: _____	DRAWN BY: S. Ogawara CHKD: H. Ochiai ENGR: T. Okada APPR: _____	DATE: 11-18-85 11-18-85 12/6/84	commodore SCHEMATIC, AMIGA 4 LAYER SIZE: C 252276 SCALE: NONE SHEET 2 OF 2
	USED ON: AMIGA 1000	NEXT ASSY:	
	REV: 1		
	SHEET 2 OF 2		



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 OTHER COMPANIES. THE USER
 ASSUMES ALL LIABILITY FOR
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 CONHOODRE-ARIGA INC. REQUESTS THE
 USER TO NOTIFY US IMMEDIATELY
 IF SUCH INFRINGEMENTS ARE
 DISCOVERED.
 THIS PRODUCT IS NOT TO BE
 REPRODUCED OR TRANSMITTED
 IN ANY FORM OR BY ANY MEANS
 WITHOUT PERMISSION IN WRITING
 FROM CONHOODRE-ARIGA INC.

CONHOODRE-ARIGA INC.
 983 UNIVERSITY AVENUE • D
 LOS ANGELES, CA 90033
 328015-01
ZORRO
 E D NEEDLE 81-89-11
 MICHAEL BOWEN 1 OF 1

J9 KBD

MALE PARALLEL J8

DISK J10

DISK J11

FEMALE DISK J17

SERIAL FEMALE J6

LEFT (0) MALE J12

RIGHT (1) MALE J11

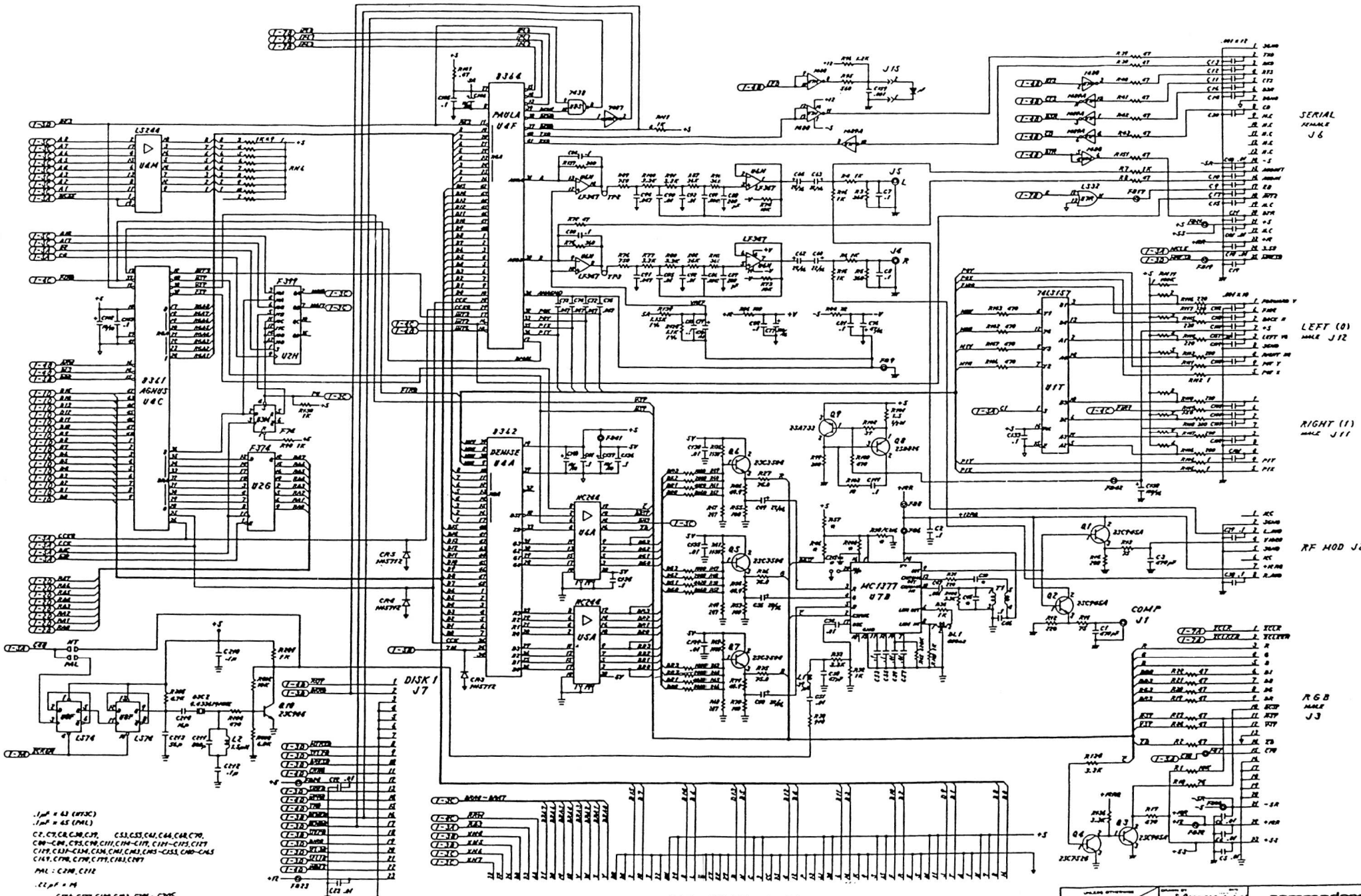
AF MOD J2

COMP J1

RGB MALE J3

RAM EXPANSION P1

1 - THIS IC MOVED UP TO RAM ROM BOARD



.1μF = 43 (PTSC)
.1μF = 45 (PAL)
C2, C3, C4, C10, C19, C53, C55, C41, C44, C46, C47, C48, C49
C80-C88, C93, C96, C111, C116-C119, C121-C123, C127
C129, C131-C134, C136, C141, C143, C145-C153, C160-C165
C167, C168, C170, C171, C181, C183
PAL: C160, C170
C127 = 100pF

SGND	↓	SHIELD
DGND	↓	DIGITAL
VGND	↓	VIDEO
AGND	↓	AUDIO

RAM EXPANSION P1

• HDSC OR PAL PARTS CHANGE LIST.

	R46	R47	R48	R49	C53	C55	U10	U11	U12
HDSC	1.49K	3.95K	3.95K	475K	100nF	100nF	100nF	100nF	100nF
PAL	100nF	100nF	100nF	100nF	100nF	100nF	100nF	100nF	100nF

SERIAL FEMALE J6

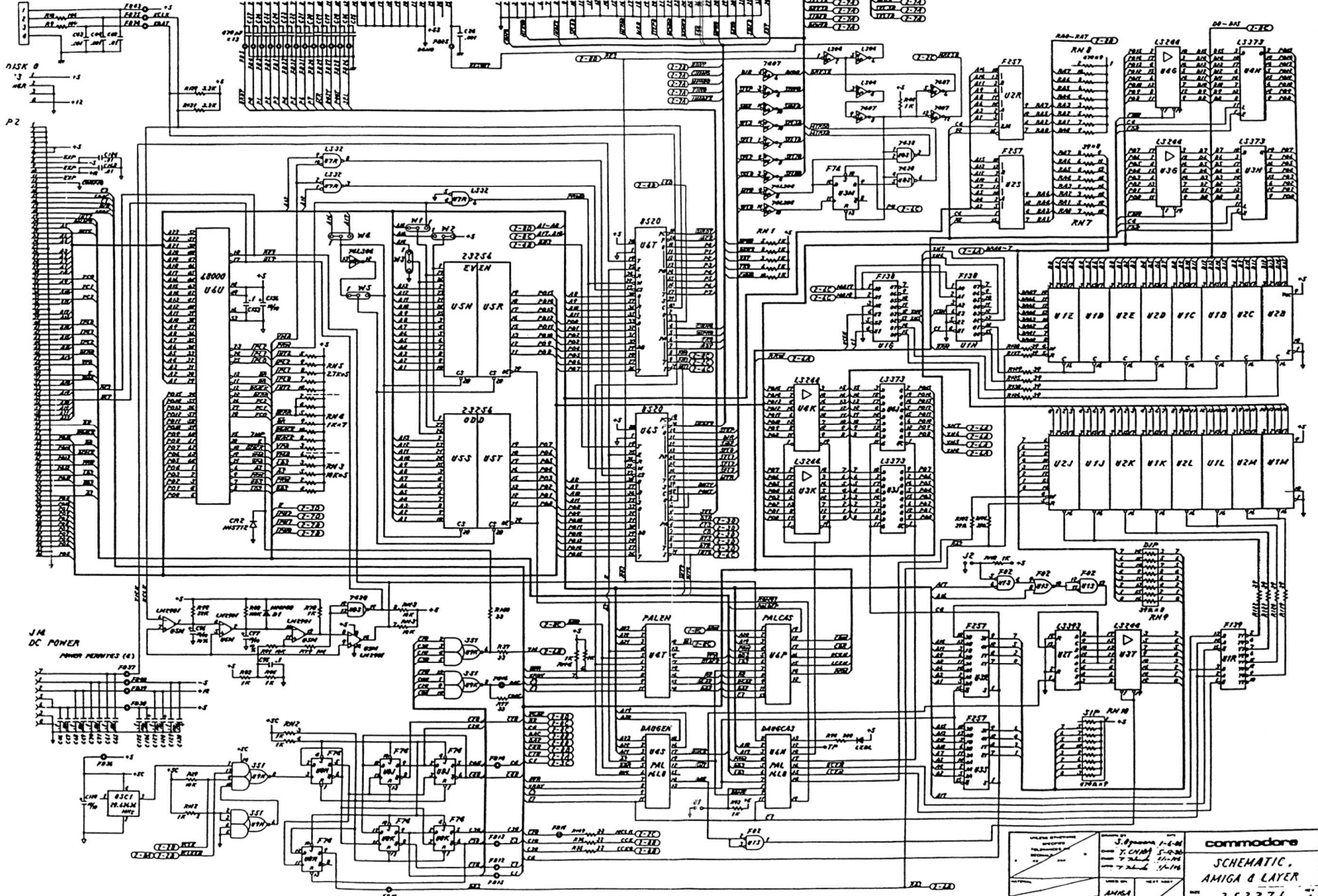
LEFT (0) MALE J12

RIGHT (1) MALE J11

RF MOD J2

R G B MALE J3

J. Opatowski 1-6-86 S. Opatowski 1-6-86 2.2.86, 11/1/86 2.2.86, 11/1/86		commodore
SCHEMATIC, AMIGA 4 LAYER		
D 252276 A SCALE 1/4X		



DESIGNED BY DRAWN BY CHECKED BY DATE	J. B.	commodore SCHEMATIC AMIGA 6 LAYER D 252276 A REV. 01
---	--------------------------------	---

PART NO.	APPROVED VENDOR	VENDOR PART NO.	LANGUAGE
327063-01	MITSUMI	R56 2144	ENGLISH
-02			BRITISH
-03		R56 2153	GERMAN
-04		R56 2152	FRENCH
327063-05	MITSUMI	R56 2154	ITALIAN

REVISIONS				
LTR	ZONE	DESCRIPTION	DATE	APPROVED
A		PRODUCTION RELEASE	18 Jun 85	WLL
B		REVISED PER ECO #60239	4/1/86	771/L

5: SHEET 2 IS D SIZE.

4-3.

	MIN	R	MAX	UNIT
V _F I _F = 10 mA	-	2.1	3.9	V
I _R V _R = 3V	-	-	10	mA
I _V I _F = 10 mA	3.4	12.0	-	msec (TA = 25°C)
ΔP I _F = 10 mA	-	635	-	nm
Δλ I _F = 10 mA	-	49	-	nm

4-2. P_D: 60 mW
 I_F: 20 mA
 V_R: 3V (TA = 25°C)
 T_{OPR}: -25°C TO +85°C
 T_{STG}: -30°C TO +100°C

4-1. COLOR:
 4. LED SPECIFICATION

3-3. STORAGE TEMPERATURE RANGE: -40°C TO +45°C
 3-2. OPERATING TEMPERATURE RANGE: -5°C TO +55°C
 3-1. OPERATION LIFE: 10,000,000 TIMES (12VDC, 5mA)

5. ENDURANCE SPECIFICATION

(1) KEY CAPS:

KEY TOP COLOR	BODY	LEGEND
ESC, DEL F1 - F10	CYCOLAC J3472	PANTONE 433C
OTHER KEY	CYCOLAC J3596	PANTONE 433C
SPACE KEY	CYCOLAC J3596	-
A . A	CYCOLAC J3596	PANTONE 200U

2-6. COLORS

2-5. TEXTURE: ALL EXTERIOR SURFACES TO BE TEXTURED
 BEALON BK-105B OR EQUIV.

(2) ARTWORK: TO BE PROVIDED BY COMMODORE.

(1) STYLE: SUBLIMATION PRINTED, STEPPED
 SCULPTURED KEYS.

2-4. KEY CAP

2-3. FULL TRAVEL: 4 ± 0.5 mm

2-2. OPERATING POINT:

FULL TRAVEL	OFF REGION
	INTERMEDIATE REGION
	ON REGION

(2) MAXIMUM FORCE: 60 ± 20 GR (EXCEPT SP KEY,
 RETURN KEY & SHIFT KEY)

(1) OPERATING FORCE: 50 GR TYPICAL

2-1. FORCE

2. MECHANICAL SPECIFICATION

1-4. CIRCUIT: MAKE CONTACT, 1 CIRCUIT

1-5. WITHSTAND VOLTAGE: 250V AC, 1 MINUTE

1-4. INSULATION RESISTANCE: 50 MΩ MIN. (AT 250V DC)

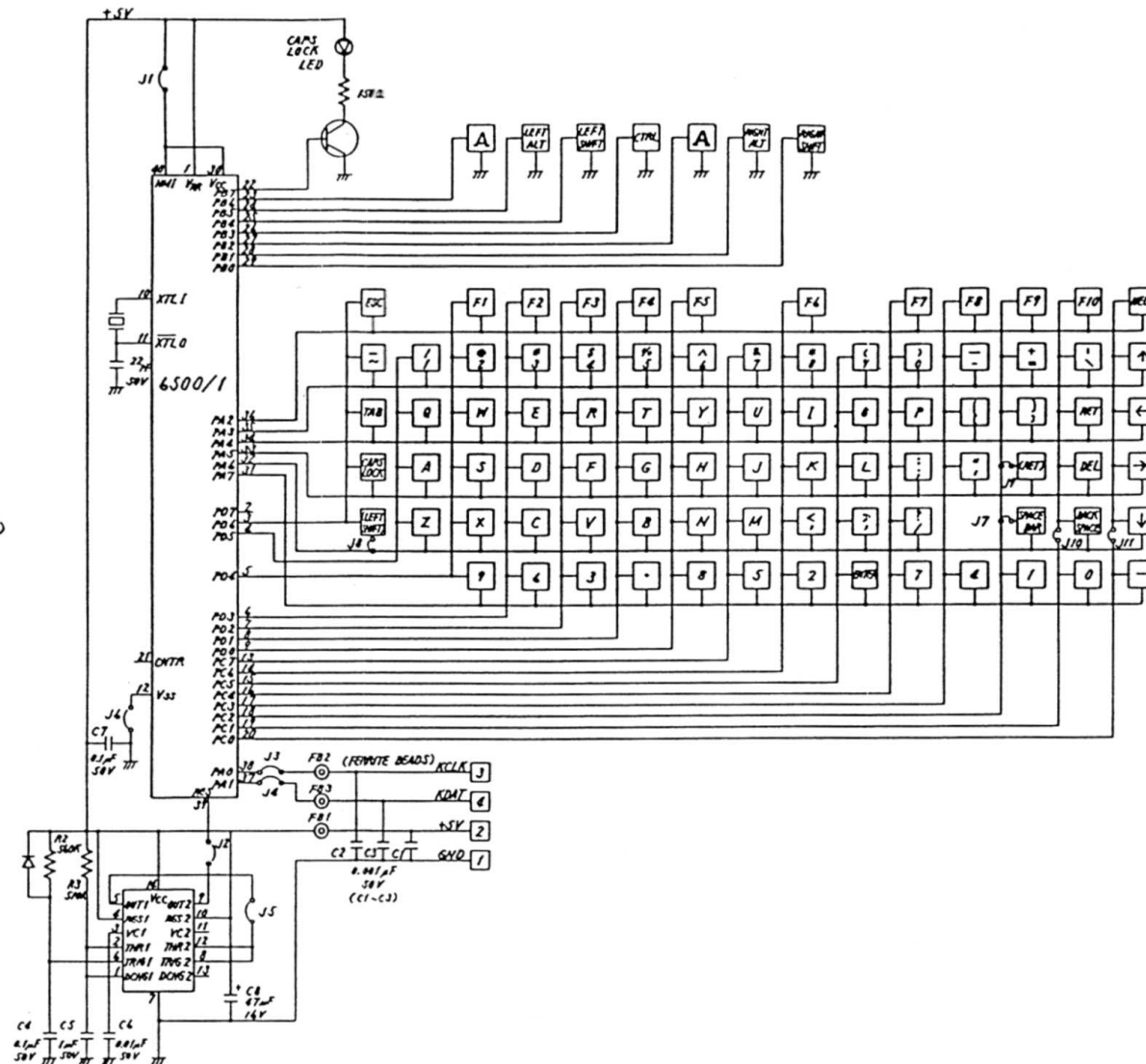
1-3. CONTACT RESISTANCE: 300 MΩ MAX. (AT 10 MILLION TIMES
 OPERATION, S.D. MAX.)

1-2. CONTACT BOUNCE: 5 m SEC. MAX. (AT NORMAL PUSHING)

1-1. MAXIMUM RATING: 12 V DC, 5 mA

1. ELECTRICAL SPECIFICATION

NOTES - UNLESS OTHERWISE SPECIFIED:



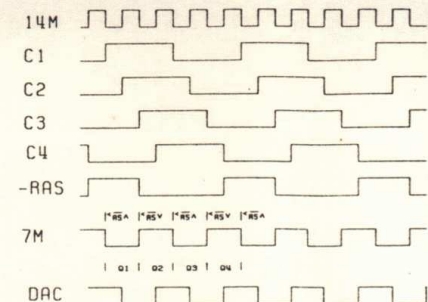
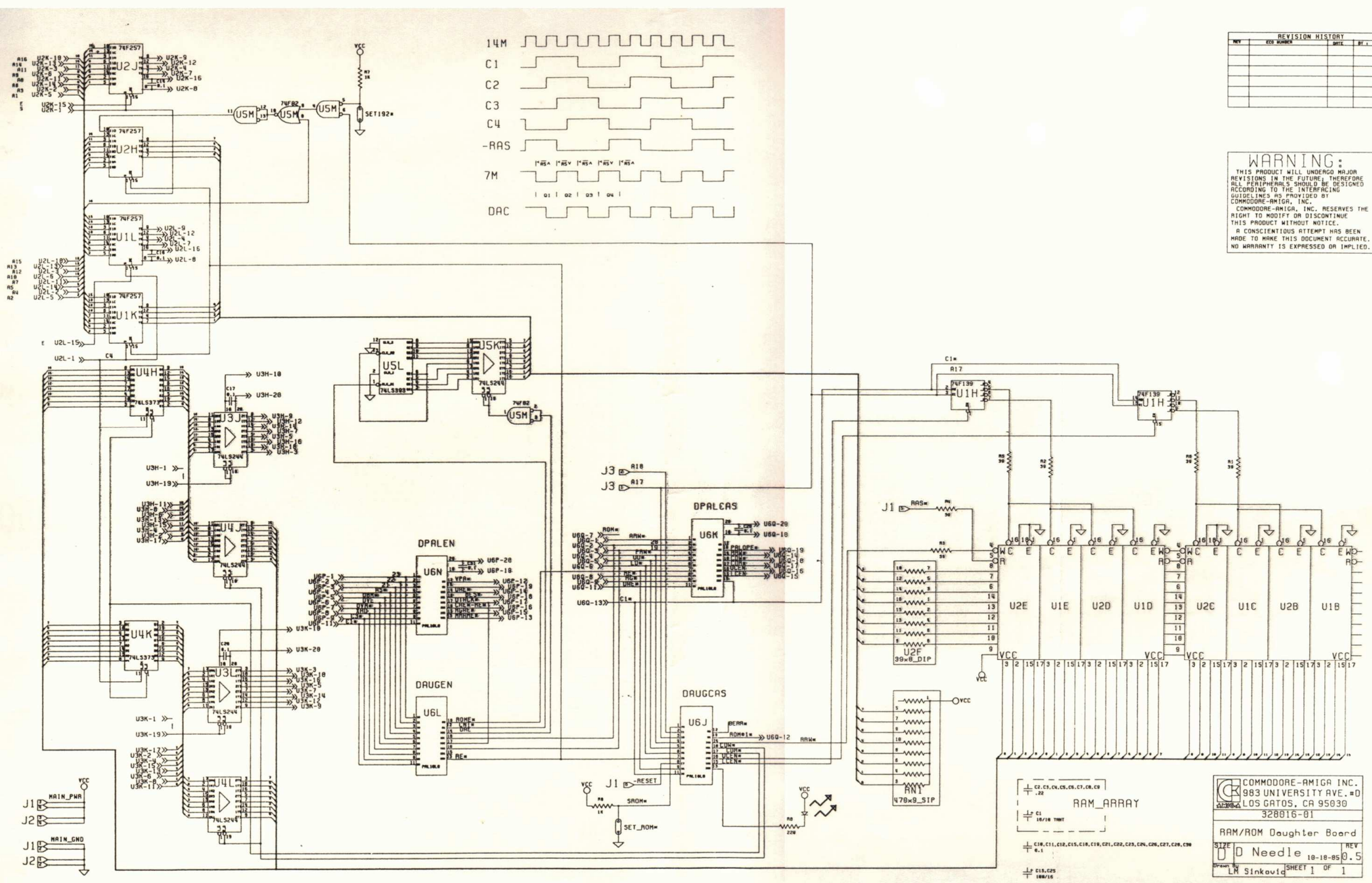
-01 SHOWN

UNLESS OTHERWISE SPECIFIED		DATE	COMMODORE
TOLERANCES ARE DECIMALS UNLESS OTHERWISE SPECIFIED	DRAWN BY R. J. da	6-28-85	
	CHKD BY VJ	6/28/85	KEYBOARD ASSY, AMIGA
	APP'D BY T. J. da	4/1/86	
	USED ON AMIGA 1000	NEXT ASSY 327158	SIZE C 327063
			SCALE NONE SHEET 1 OF 1

THIRD ANGLE SYSTEM DIMENSION

REVISION HISTORY			
REV	ECO NUMBER	DATE	BY

WARNING:
 THIS PRODUCT WILL UNDERGO MAJOR REVISIONS IN THE FUTURE. THEREFORE ALL PERIPHERALS SHOULD BE DESIGNED ACCORDING TO THE INTERFACING GUIDELINES AS PROVIDED BY COMMODORE-AMIGA, INC.
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RAM_ARRAY
 C2, C3, C4, C5, C6, C7, C8, C9
 C1 10/18 TRIT
 C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29
 C15, C25 100/10

COMMODORE-AMIGA INC.
 983 UNIVERSITY AVE., #0
 LOS GATOS, CA 95030
 328016-01
 RAM/ROM Daughter Board
 SIZE D Needle 18-18-85 0.5
 SHEET 1 OF 1