1.9.84

MAGICOM MAIN LOGIC SCHEMATIC REVISIONS

A. Original release.

B. R3: Was 1K; became 300.

D0 on U20 incorrectly shown as Pin 8. Changed to pin 18 on 6/23/83.

C. Addition of capacitor C63, 220pf disc between U24, Pin 3 and ground. 6/27/83.

D. C54: Was 0.001uf disc. Became 0.1uf disc on 6/29/83.

C63: Was 220pf disc. Became 0.001uf disc on 6/29/83.

74LS244 inserted between 4MHz signal and U1 (Z80), Pin 6. U17, Pins 13 and 7 used - these were formerly a spare gate. 6/29/83.

E. C40, 0.01 disc tied between U22, Pin 2 and ground is deleted.

74LS244 inserted between Q1 collector and U22, Pins 1 and 2. U17, Pins 11 and 9 used - these were formerly a spare gate.

U1(Z80), Pin 25 cut from U7 (MC68705P5), Pin 9. U1(Z80), Pin 25 tied to R48 (new addition) 4.7K $\frac{1}{4}$W 5% resistor. Other side of R48 tied to +5V.

U18(74LS245), Pin 19 cut from U7(68705, Pin 14. U18, Pin 19 tied to +5V.

U17(74LS244), Pin 17 cut from U7, Pin 19. U17, Pin 17 tied to +5V.

U23(74LS244), Pin 1 cut from U22(74LS00), Pin 11. U23, Pin 1 tied to ground.

All of "E" above were effective on 7/8/83.

F. Deletion of the following effective 7/8/83:

U5	74LS244
U6	74LS393
U12	74LS244
U13	74LS393
U17	74LS244
U18	74LS245

Subtitute U23 for U17 (74LS244) for clock signal into Z80 (U1, Pin 6 from U23, Pin 7) and reset signal into U22, Pins 1 and 2 from U23, Pin 9 effective 7/8/83.

G. C63: Was 0.001uf disc. Became 470pf effective 9/5/83.

H. Reset signal sent from U23, Pin 9 to U16, Pin 1 to cure false coin count on power up.

I. Reference letter not used.

J. Correct pin out for inputs on U20(74LS244) effective 9/16/83.

K. C63: Was 470pf disc; became 330pf disc.
C17: Was 330pf mica; became 330pf disc.

Addition of U31(74LS74) to divide clock.

Y1: Was 4.000MHz; became 16.000MHz.
U24: Was74LS04; became 74S04.

Addition of R29 between U29, Pin 4 and C24.
Addition of R50 between U30, Pin 4 and C50.

These two additions allow option for U29 and 30 with the following components:

		LM383	CA2002
R49, R50	=	0 ohm jumper	2.2 ohm, ¼W 5%
C24, C50	=	0.2 Disc	0.1 disc

Addition of Jumper W1, when installed,allows board to be used with Pioneer 7820 disc player with proper software.

Deleted: U7 MC68705

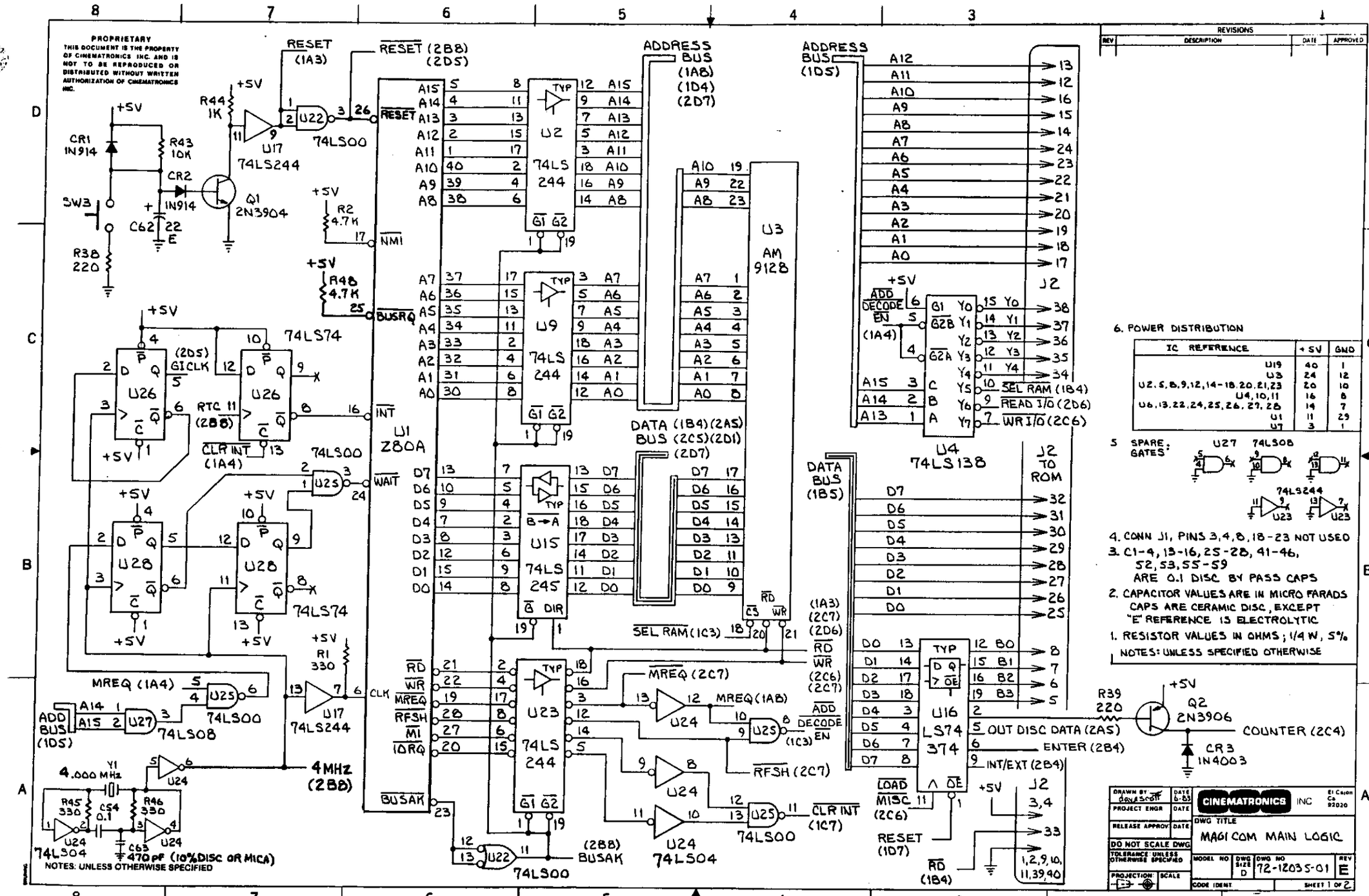
Addition (reinstallation) U6, 74LS393
U13, 74LS393
U6, Pins 2 and 12, and U13, Pins 2 and 12 all grounds.

U6, Pin 6 tied to U26, Pin 11 (RTC).

U13, Pin 13 tied to U26, Pin 5 (GI CLK)

All of "K" above effective 10/10/83.

"K" revision schematic is for "C" revision printed circuit board used with LDV-1000 laser disc player.


PROPRIETARY
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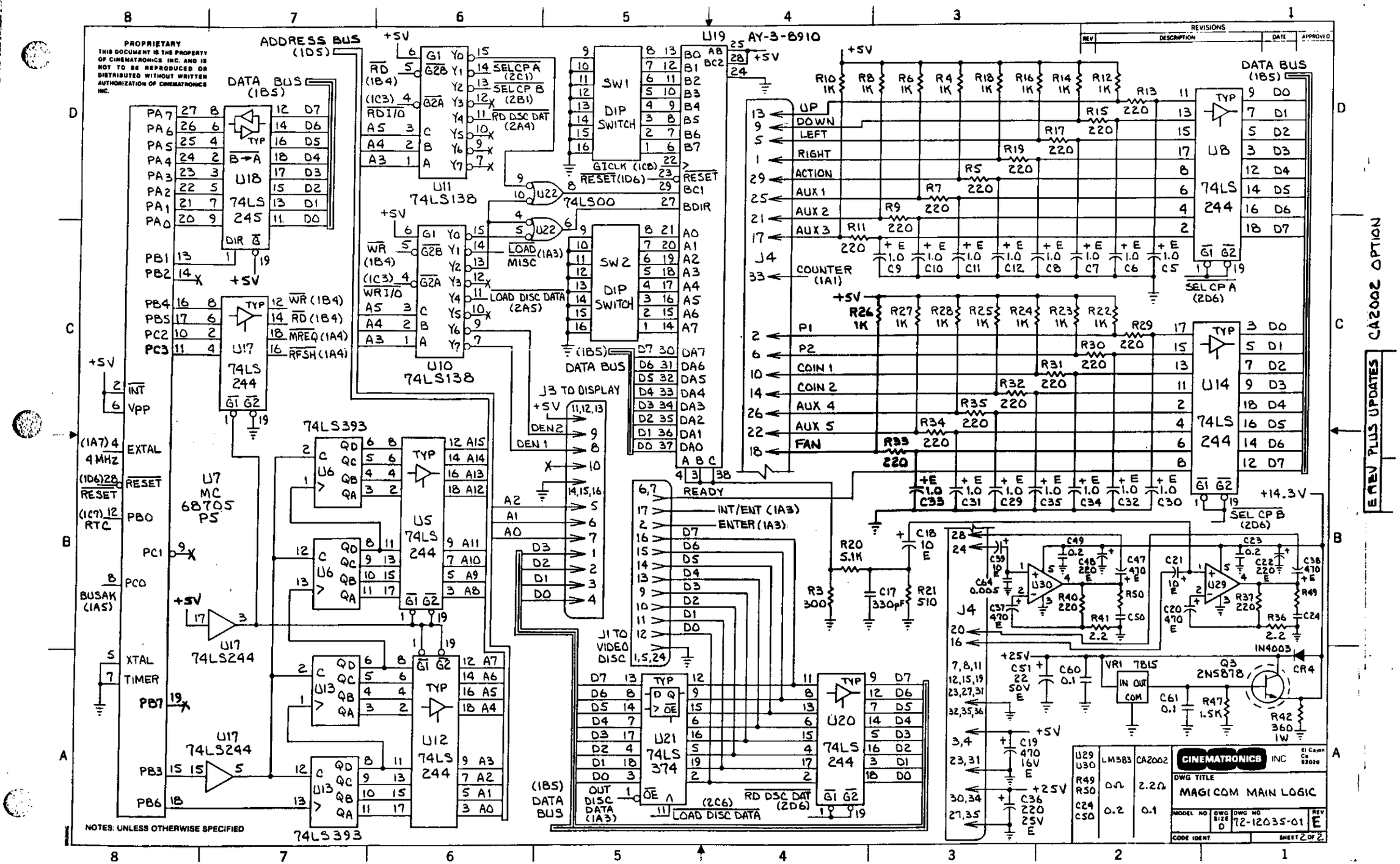
RESET (1A3)
RESET (2B8) (2D5)
+5V
R44 1K
U22 74LS00
U17 74LS244
CR1 IN914
R43 10K
CR2 IN914
Q1 2N3904
SW3
C62 22 E
R38 220
R2 4.7K
NMI
R48 4.7K
BUSRQ
ADDRESS BUS (1A8) (1D4) (2D7)
U2 74LS 244
U9 74LS 244
U3 AM 9128
DATA (1B4)(2A5) BUS (2C5)(2D1) (2D7)
U15 74LS 245
ADDRESS BUS (1D5)
U4 74LS138
J2
J2 TO ROM
DATA BUS (1B5)
U16 LS74 374
U1 Z80A
74LS74
U26
(2D5) GICLK
RTC 11 (2B8)
INT
CLR INT (1A4)
74LS00
U25
WAIT
U28
74LS74
MREQ (1A4)
ADD BUS (1D5)
A14
A15
U27 74LS08
RI 330
CLK
4MHz (2B8)
Y1 4.000 MHz
R45 330
R46 330
C54 0.1
C63 470 pF (10% DISC OR MICA)
U24 74LS04
RD
WR
MREQ
RFSH
MI
IORQ
BUSAK
(2B8) BUSAK
SEL RAM (1C3)
(1A3) (2C7) (2D6)
RD
WR
MREQ (2C7)
MREQ (1A8)
ADD DECODE EN (1C3)
RFSH (2C7)
CLR INT (1C7)
LOAD MISC (2C6)
RESET (1D7)
RD (1B4)
OUT DISC DATA (2A5)
ENTER (2B4)
INT/EXT (2B4)
R39 220
Q2 2N3906
CR3 IN4003
COUNTER (2C4)
ADD DECODE EN (1A4)
SEL RAM (1B4)
READ I/O (2D6)
WR I/O (2C6)
6. POWER DISTRIBUTION
IC REFERENCE | +5V | GND
U19 | 40 | 1
U3 | 24 | 12
U2,5,8,9,12,14-18,20,21,23 | 20 | 10
U4,10,11 | 16 | 8
U6,13,22,24,25,26,27,28 | 14 | 7
U1 | 11 | 29
U7 | 3 | 1
5 SPARE GATES: U27 74LS08
74LS244 U23
4. CONN J1, PINS 3,4,8,18-23 NOT USED
3. C1-4, 13-16, 25-28, 41-46, 52, 53, 55-59 ARE 0.1 DISC BY PASS CAPS
2. CAPACITOR VALUES ARE IN MICRO FARADS CAPS ARE CERAMIC DISC, EXCEPT "E" REFERENCE IS ELECTROLYTIC
1. RESISTOR VALUES IN OHMS; 1/4 W, 5%
NOTES: UNLESS SPECIFIED OTHERWISE
REVISIONS
REV | DESCRIPTION | DATE | APPROVED
E REV PLUS UPDATES
POWER UP CONN COUNT FIX CS4 : C63
DRAWN BY
PROJECT ENGR
RELEASE APPROV
DO NOT SCALE DWG
TOLERANCE UNLESS OTHERWISE SPECIFIED
PROJECTION
SCALE
CINEMATRONICS INC
El Cajon Ca 92020
DWG TITLE
MAGICOM MAIN LOGIC
MODEL NO
DWG SIZE D
DWG NO 72-12035-01
REV E
CODE IDENT
SHEET 1 OF 2


PROPRIETARY
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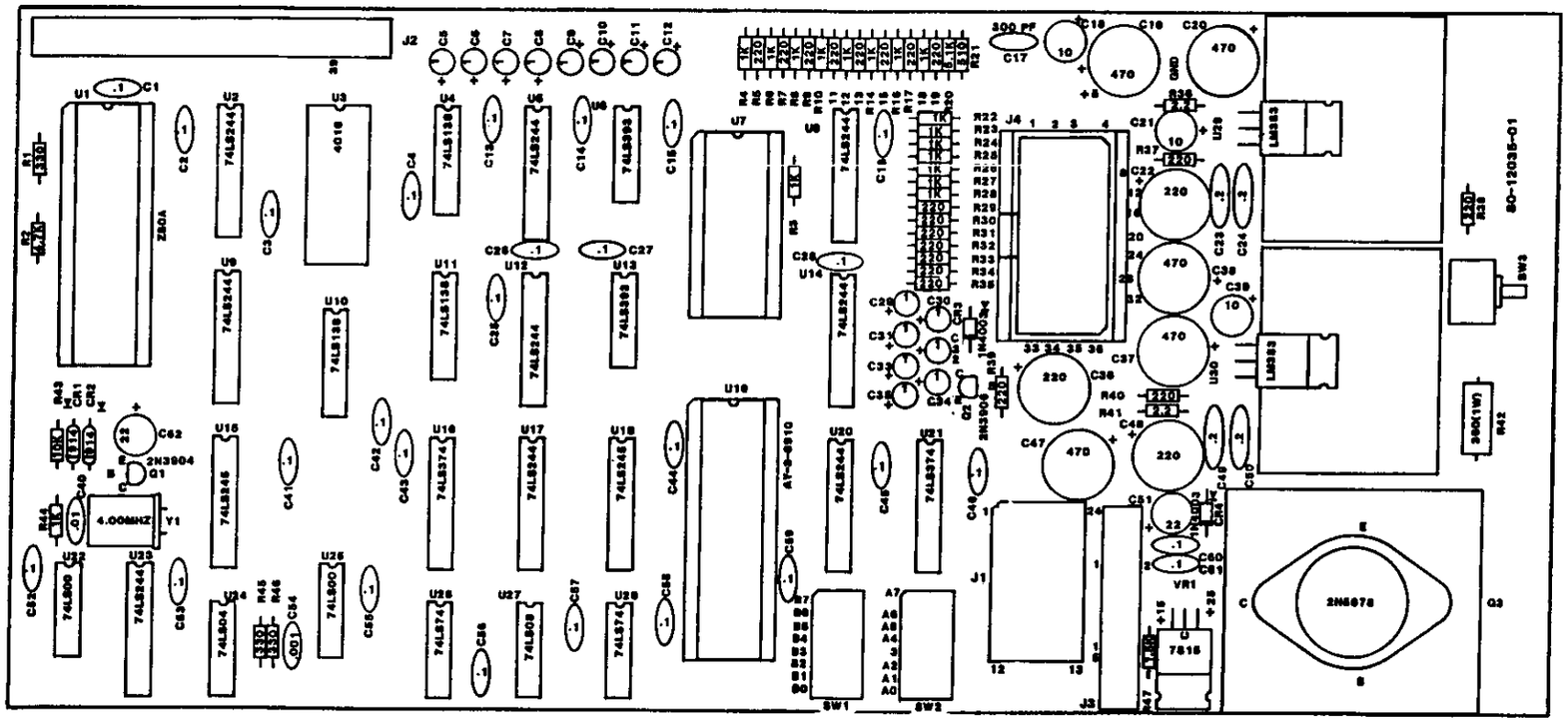
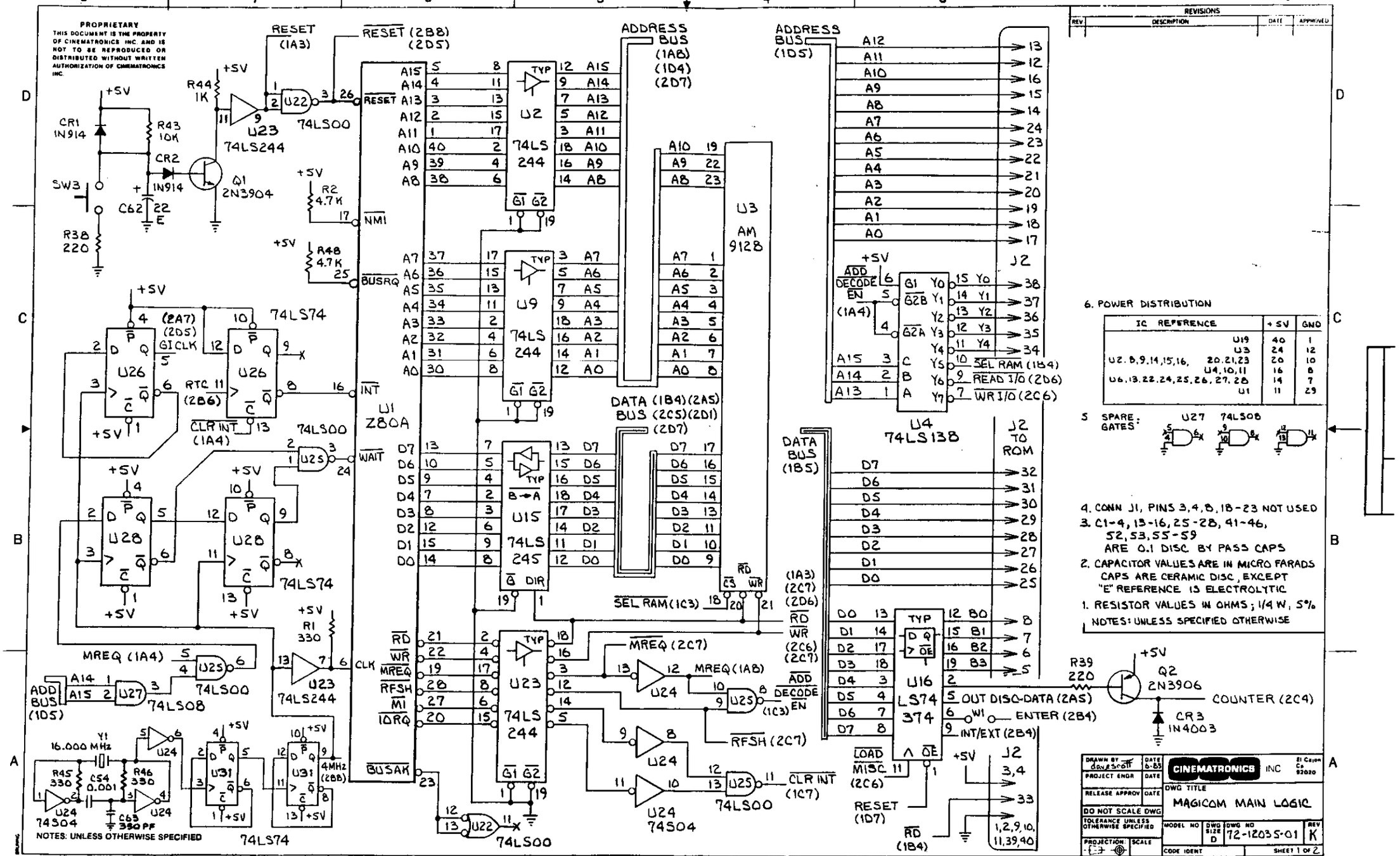
REVISIONS
REV DESCRIPTION DATE APPROVED
ADDRESS BUS (1D5)
DATA BUS (1B5)
U19 AY-3-8910
SW1 DIP SWITCH
SW2 DIP SWITCH
U11 74LS138
U10 74LS138
U18 74LS 245
U17 74LS 244
U8 74LS 244
U14 74LS 244
U7 MC 68705 P5
U5 74LS 244
U6 74LS393
U13 74LS393
U12 74LS 244
U21 74LS 374
U20 74LS 244
U22 74LS00
J3 TO DISPLAY
J1 TO VIDEO DISC
J4
UP
DOWN
LEFT
RIGHT
ACTION
AUX 1
AUX 2
AUX 3
COUNTER (1A1)
P1
P2
COIN 1
COIN 2
AUX 4
AUX 5
FAN
SEL CP A (2D6)
SEL CP B (2D6)
READY
INT/ENT (1A3)
ENTER (1A3)
LOAD DISC DATA
RD DSC DAT (2D6)
+14.3V
VR1 7815
Q3 2N5878
CR4 IN4003
CA2002 OPTION
E REV PLUS UPDATES
CINEMATRONICS INC
DWG TITLE
MAGICOM MAIN LOGIC
DWG NO 72-12035-01 REV E
SHEET 2 OF 2
NOTES: UNLESS OTHERWISE SPECIFIED

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



NOTES: UNLESS OTHERWISE SPECIFIED

MATERIAL:	DRAWN BY: Dawson	DATE: 6-83	CINEMATRONICS INC El Cajon Ca 92020
	PROJECT ENGR	DATE	DWG TITLE: STARCOM MAIN LOGIC
	RELEASE APPROV	DATE	
FINISH:	DO NOT SCALE DWG		MODEL NO / DWG SIZE D / DWG NO 81-12035-01 / REV A
	TOLERANCE UNLESS OTHERWISE SPECIFIED		CODE IDENT / SHEET 1 OF 1
	PROJECTION	SCALE	


PROPRIETARY
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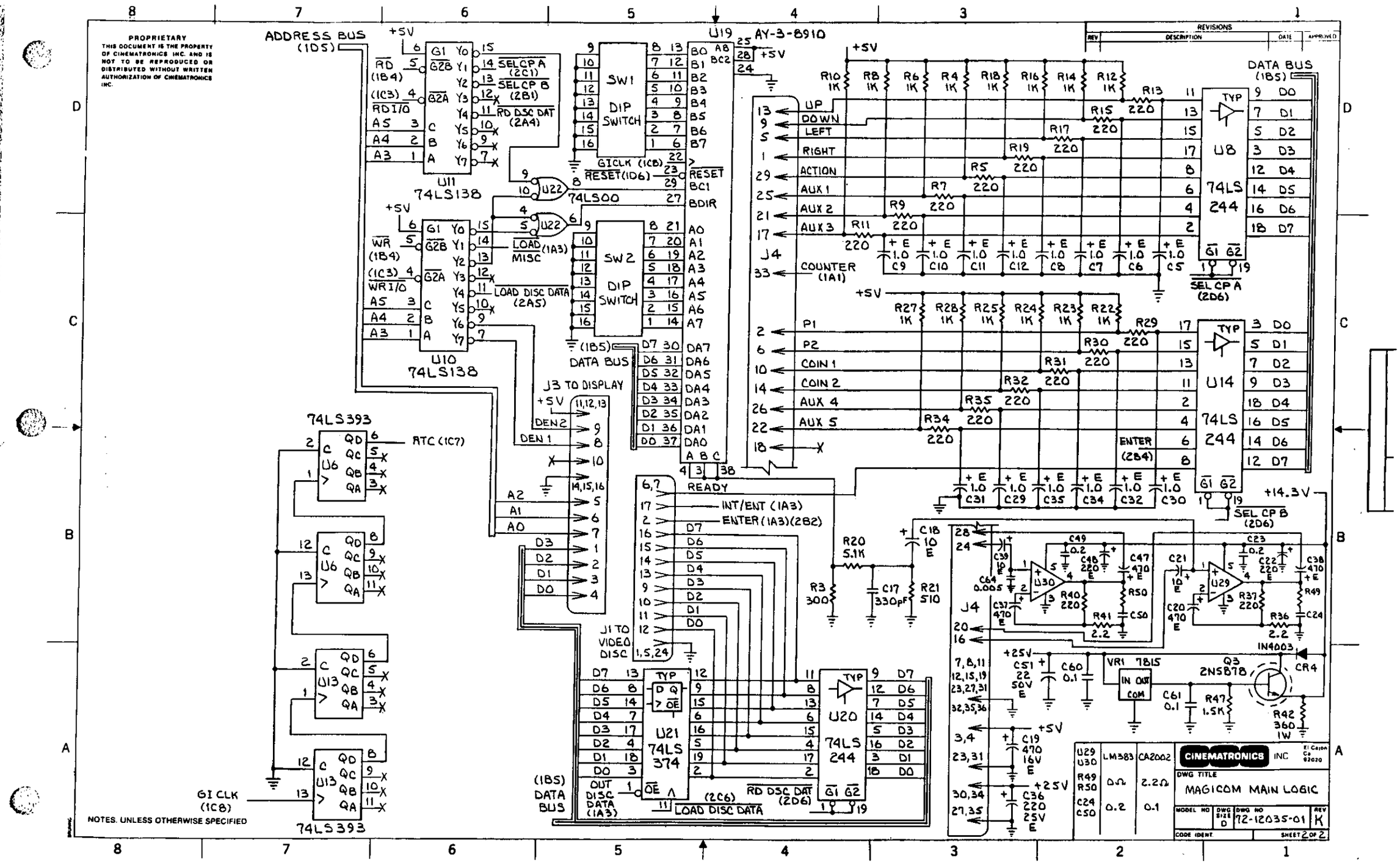
REVISIONS
REV DESCRIPTION DATE APPROVED
RESET (1A3)
RESET (2B8) (2D5)
+5V
R44 1K
U22 74LS00
U23 74LS244
CR1 IN914
R43 10K
CR2 IN914
Q1 2N3904
SW3
C62 22 E
R38 220
R2 4.7K
R48 4.7K
NMI
BUSRQ
INT
WAIT
CLK
BUSAK
U1 Z80A
74LS74
U26
(2A7) (2D5) GICLK
RTC 11 (2B6)
CLR INT (1A4)
74LS00
U25
U28
MREQ (1A4)
U27 74LS08
ADD BUS (1D5)
A14 A15
Y1 16.000 MHz
R45 330
C64 0.001
R46 330
C63 330 PF
U24 74S04
U31
4MHz (2B8)
NOTES: UNLESS OTHERWISE SPECIFIED
R1 330
U2 74LS 244
U9 74LS 244
U15 74LS 245
U23 74LS 244
A15 A14 A13 A12 A11 A10 A9 A8
A7 A6 A5 A4 A3 A2 A1 A0
D7 D6 D5 D4 D3 D2 D1 D0
G1 G2
B→A
G DIR
ADDRESS BUS (1A8) (1D4) (2D7)
ADDRESS BUS (1D5)
U3 AM 9128
DATA (1B4) (2A5) BUS (2C5) (2D1) (2D7)
SEL RAM (1C3)
RD
WR
MREQ
RFSH
M1
IORQ
MREQ (2C7)
MREQ (1A8)
U24
ADD DECODE EN (1C3)
RFSH (2C7)
CLR INT (1C7)
U24 74S04
74LS00
U4 74LS138
ADD DECODE EN (1A4)
G1 G2B G2A C B A
Y0 Y1 Y2 Y3 Y4 Y5 Y6 Y7
SEL RAM (1B4)
READ I/O (2D6)
WR I/O (2C6)
J2
J2 TO ROM
DATA BUS (1B5)
U16 LS374
OUT DISC-DATA (2A5)
WI
ENTER (2B4)
INT/EXT (2B4)
LOAD MISC (2C6)
RESET (1D7)
RD (1B4)
R39 220
Q2 2N3906
CR3 IN4003
COUNTER (2C4)
6. POWER DISTRIBUTION
IC REFERENCE | +5V | GND
U19 40 1
U3 24 12
U2, 5, 9, 14, 15, 16, 20, 21, 23 20 10
U4, 10, 11 16 8
U6, 13, 22, 24, 25, 26, 27, 28 14 7
U1 11 29
5 SPARE GATES: U27 74LS08
4. CONN J1, PINS 3, 4, 5, 18-23 NOT USED
3. C1-4, 13-16, 25-28, 41-46, 52, 53, 55-59 ARE 0.1 DISC BY PASS CAPS
2. CAPACITOR VALUES ARE IN MICRO FARADS CAPS ARE CERAMIC DISC, EXCEPT "E" REFERENCE IS ELECTROLYTIC
1. RESISTOR VALUES IN OHMS; 1/4 W, 5%
NOTES: UNLESS SPECIFIED OTHERWISE
DRAWN BY dougscott DATE 6-83
PROJECT ENGR DATE
RELEASE APPROV DATE
DO NOT SCALE DWG
TOLERANCE UNLESS OTHERWISE SPECIFIED
PROJECTION SCALE
CINEMATRONICS INC El Cajon Ca 92020
DWG TITLE MAGICOM MAIN LOGIC
MODEL NO DWG SIZE D DWG NO 72-1203 S-01 REV K
CODE IDENT SHEET 1 OF 2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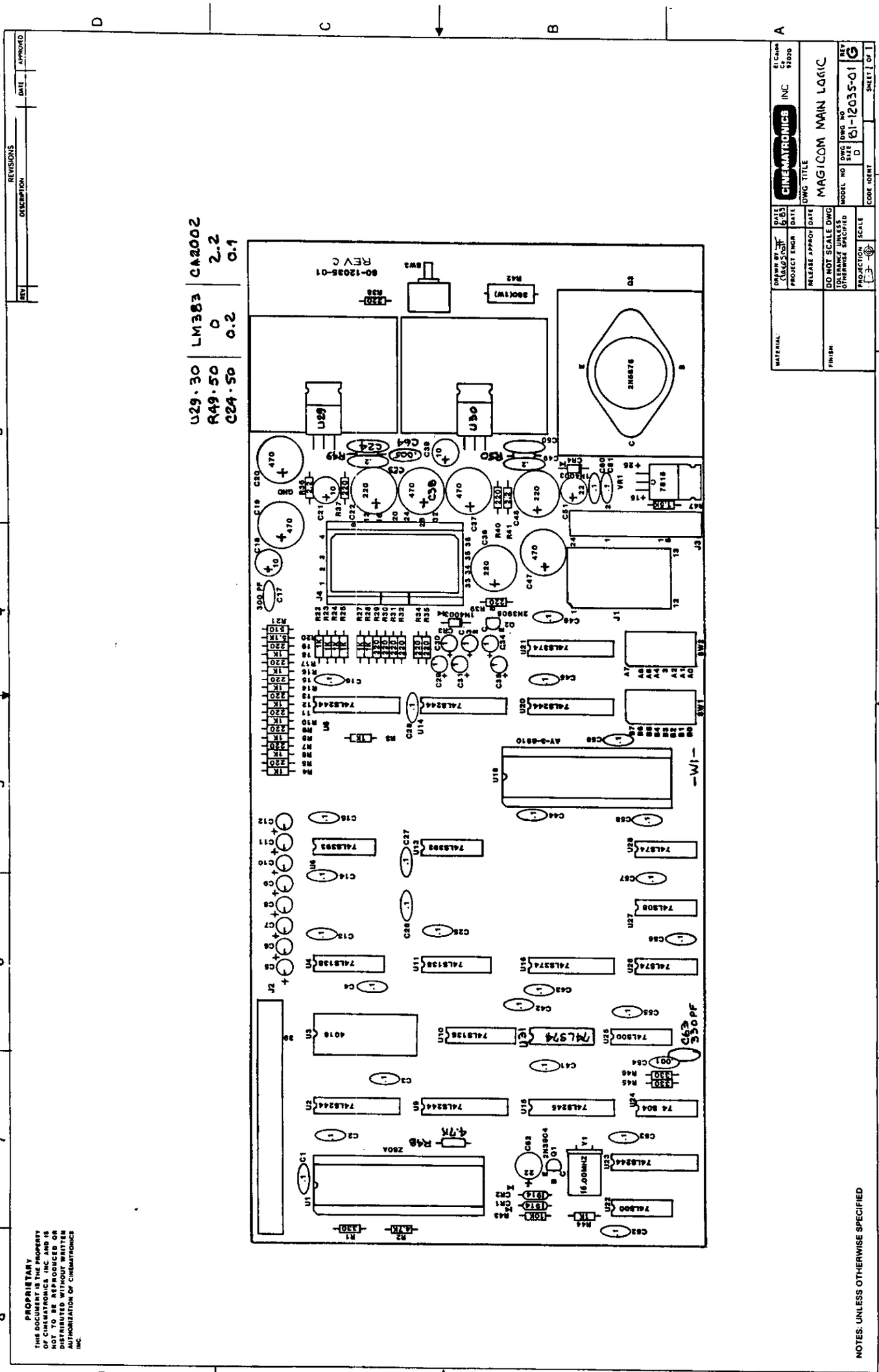
REVISIONS
REV DESCRIPTION DATE APPROVED
ADDRESS BUS (1D5)
+5V
U11 74LS138
U10 74LS138
U19 AY-3-8910
SW1 DIP SWITCH
SW2 DIP SWITCH
GICLK (1C8)
RESET (1D6)
LOAD MISC (1A3)
LOAD DISC DATA (2A5)
RD DSC DAT (2A4)
SEL CP A (2C1)
SEL CP B (2B1)
DATA BUS (1B5)
J3 TO DISPLAY
J1 TO VIDEO DISC
74LS393
RTC (1C7)
GI CLK (1C8)
U20 74LS 244
U21 74LS 374
U8 74LS 244
U14 74LS 244
UP
DOWN
LEFT
RIGHT
ACTION
AUX 1
AUX 2
AUX 3
COUNTER (1A1)
P1
P2
COIN 1
COIN 2
AUX 4
AUX 5
ENTER (2B4)
READY
INT/ENT (1A3)
ENTER (1A3)(2B2)
+14.3V
VR1 7815
Q3 2N5878
CR4
IN4003
CINEMATRONICS INC
DWG TITLE
MAGICOM MAIN LOGIC
DWG NO 72-12035-01
REV K
SHEET 2 OF 2
NOTES. UNLESS OTHERWISE SPECIFIED


U29·30 CA2002
R49·50 LM383 2.2
C24·50 0 0.2
0.1
80-12035-01 REV C
CINEMATRONICS INC
DWG TITLE
MAGICOM MAIN LOGIC
MODEL NO
DWG SIZE D
DWG NO 81-12035-01
REV G
SHEET 1 OF 1
CODE IDENT
SCALE
DO NOT SCALE DWG
TOLERANCE UNLESS OTHERWISE SPECIFIED
DRAWN BY
PROJECT ENGR
RELEASE APPROV
MATERIAL
FINISH
REVISIONS
REV
DESCRIPTION
DATE
APPROVED
PROPRIETARY
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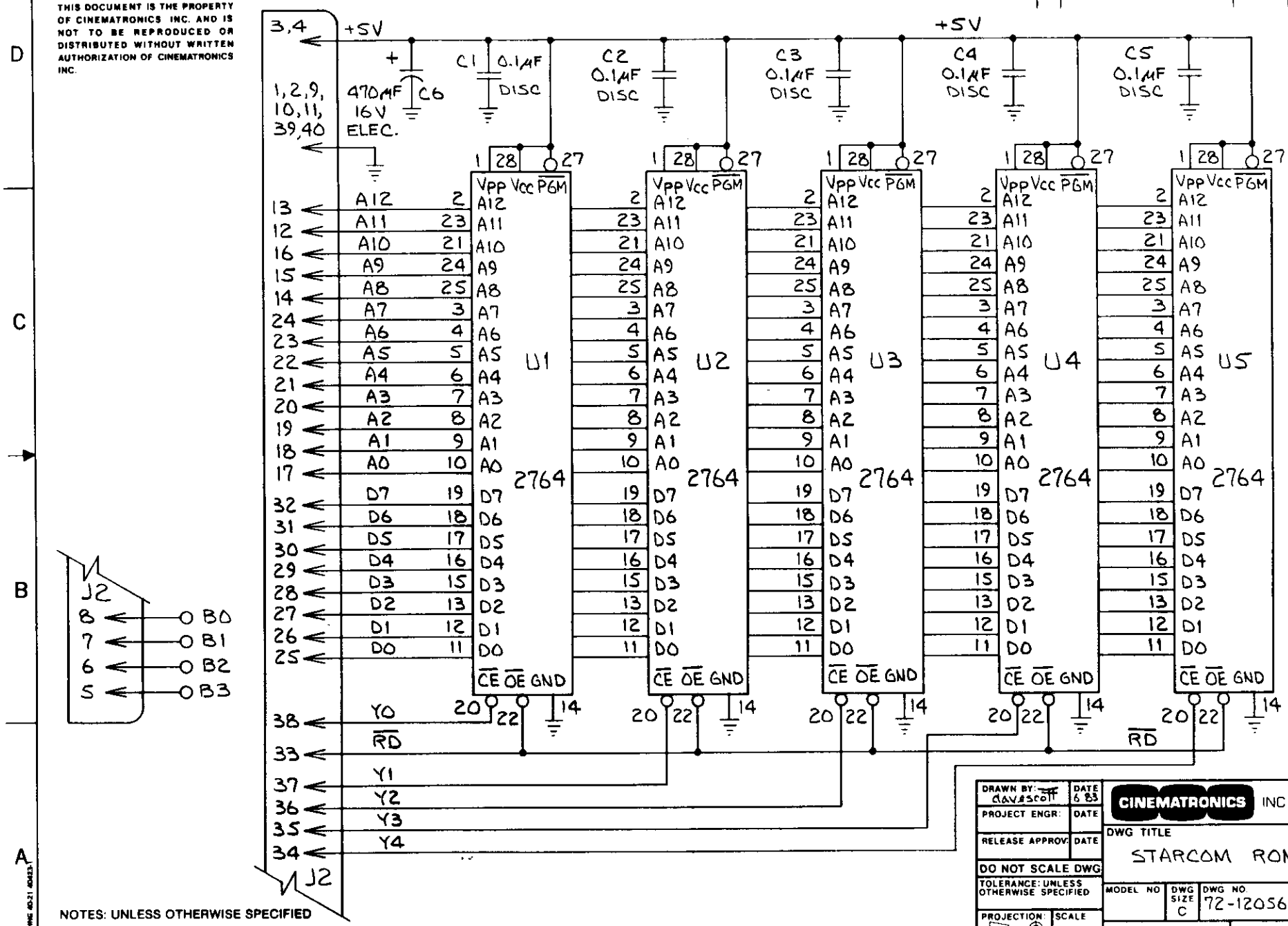
NOTES: UNLESS OTHERWISE SPECIFIED

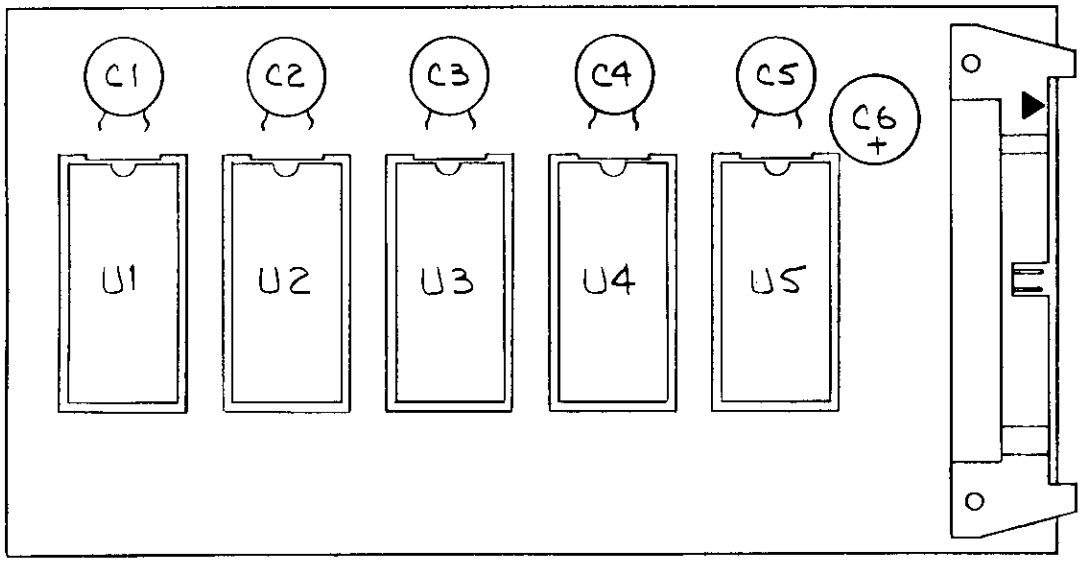
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



NOTES: UNLESS OTHERWISE SPECIFIED

DRAWN BY: davescott	DATE 6 83	CINEMATRONICS INC	El Cajon Ca. 92020
PROJECT ENGR:	DATE	DWG TITLE: STARCOM ROM	
RELEASE APPROV:	DATE		
DO NOT SCALE DWG			
TOLERANCE: UNLESS OTHERWISE SPECIFIED		MODEL NO	DWG SIZE C; DWG NO. 72-12056-01; REV A
PROJECTION:	SCALE	CODE IDENT	SHEET 1 OF 1

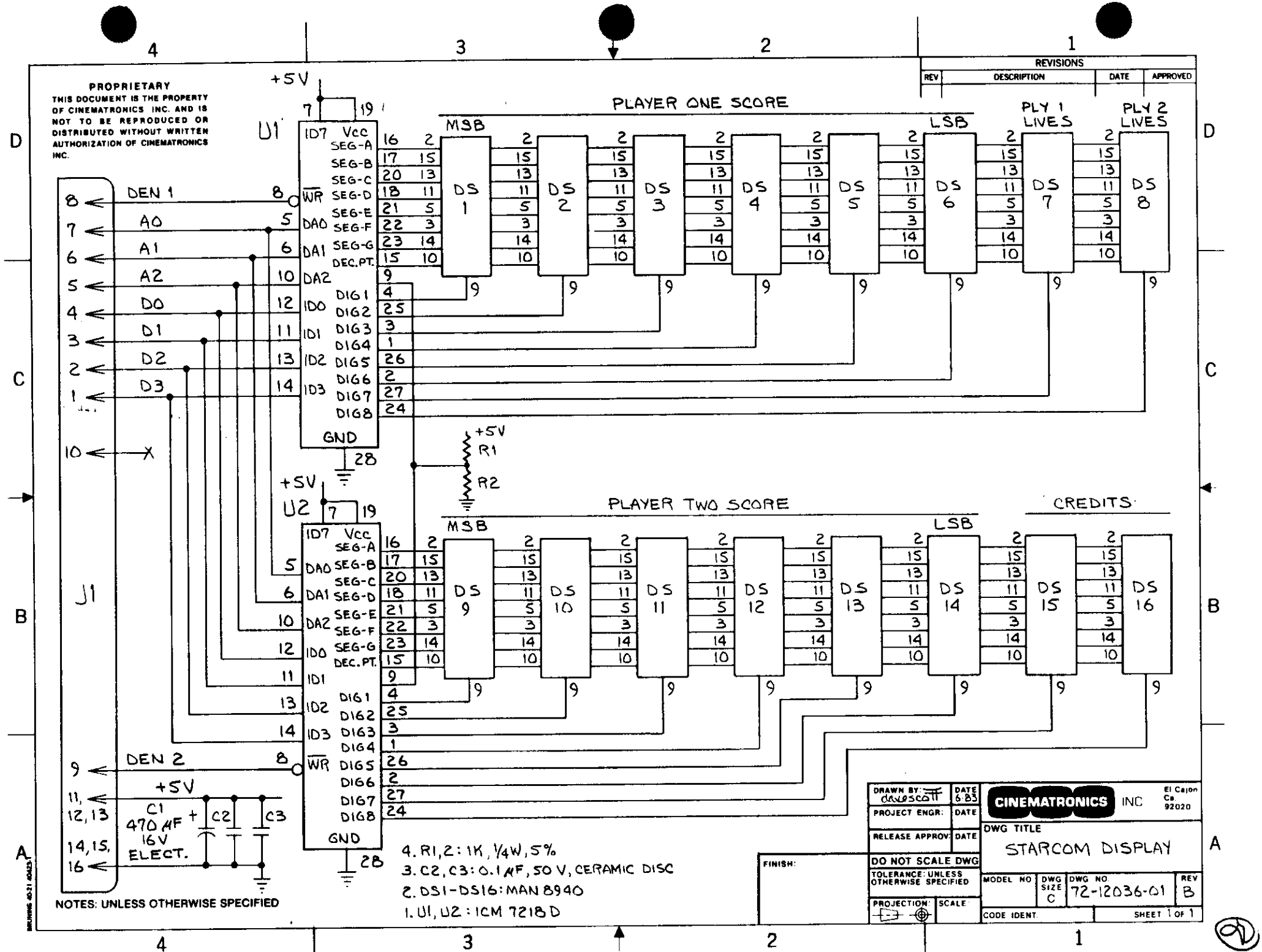
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



3. DRAGON'S LAIR (81-12056-01): U1-U5, 2764 WITH SOCKET
2. C6; 470 μF, 16 V MINIMUM, ELECTROLYTIC
1. C1-C5; 0.1 μF, 50V, DISC

NOTES: UNLESS OTHERWISE SPECIFIED

MATERIAL:	DRAWN BY: DAVE SCOTT	DATE 6-83	CINEMATRONICS INC El Cajon Ca 92020
	PROJECT ENGR:	DATE	DWG TITLE: STARCOM ROM
	RELEASE APPROV:	DATE	
FINISH:	DO NOT SCALE DWG		MODEL NO. / DWG SIZE C / DWG NO. 81-12056-XX / REV. A
	TOLERANCE: UNLESS OTHERWISE SPECIFIED		CODE IDENT / SHEET 1 OF 1
	PROJECTION:	SCALE: 2:1	


PROPRIETARY
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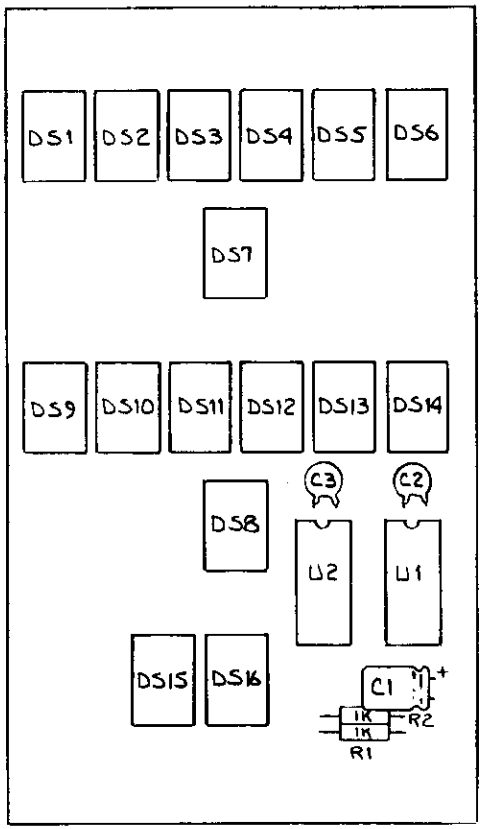
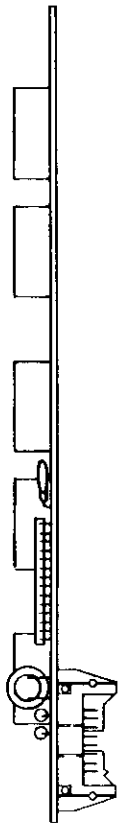
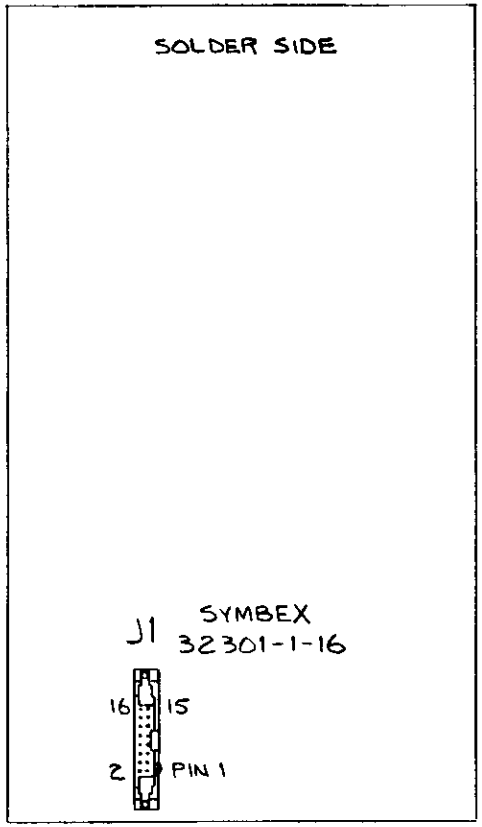
REVISIONS
REV
DESCRIPTION
DATE
APPROVED
PLAYER ONE SCORE
PLAYER TWO SCORE
CREDITS
MSB
LSB
PLY 1 LIVES
PLY 2 LIVES
DS 1
DS 2
DS 3
DS 4
DS 5
DS 6
DS 7
DS 8
DS 9
DS 10
DS 11
DS 12
DS 13
DS 14
DS 15
DS 16
U1
U2
J1
+5V
GND
DEN 1
DEN 2
A0
A1
A2
D0
D1
D2
D3
R1
R2
C1
470 MF
16V
ELECT.
C2
C3
SEG-A
SEG-B
SEG-C
SEG-D
SEG-E
SEG-F
SEG-G
DEC.PT.
DIG1
DIG2
DIG3
DIG4
DIG5
DIG6
DIG7
DIG8
4. R1,2: 1K, 1/4W, 5%
3. C2, C3: 0.1 MF, 50 V, CERAMIC DISC
2. DS1-DS16: MAN 8940
1. U1, U2: ICM 7218 D
NOTES: UNLESS OTHERWISE SPECIFIED
DRAWN BY:
DATE 6-83
PROJECT ENGR:
RELEASE APPROV:
DO NOT SCALE DWG
TOLERANCE: UNLESS OTHERWISE SPECIFIED
PROJECTION:
SCALE:
FINISH:
CINEMATRONICS INC
El Cajon Ca 92020
DWG TITLE
STARCOM DISPLAY
MODEL NO
DWG SIZE C
DWG NO. 72-12036-01
REV B
CODE IDENT
SHEET 1 OF 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
B	ADD R1, R2	9-29-83	





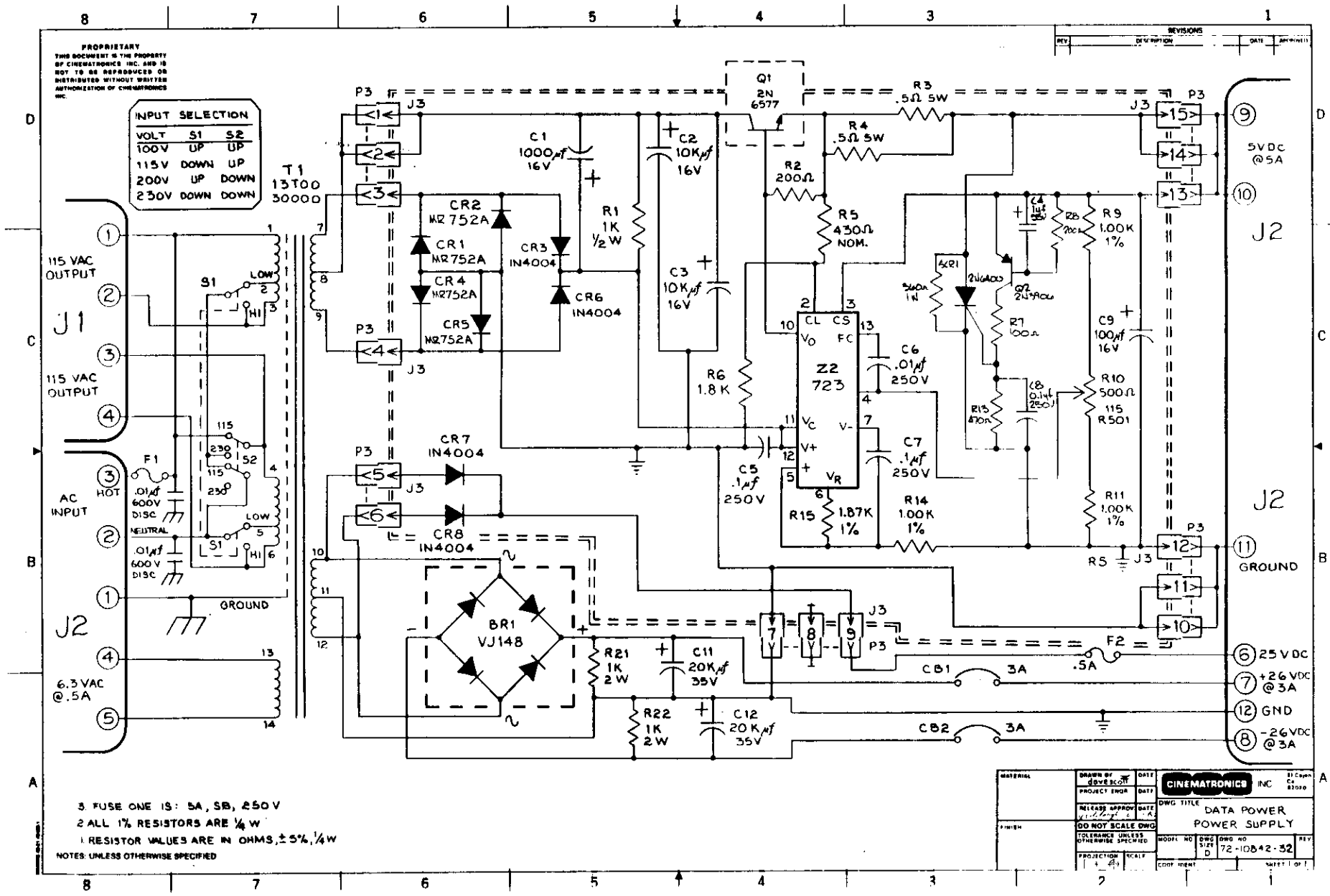


6. CONNECTOR INSTALLED ON SOLDER SIDE OF P.C.B.
5. ALL CAPACITORS TO BE LAYED DOWN
4. C2, C3 : 0.1 μF 50 V DISC 20%
3. C1 : 470 μF ELECTROLYTIC 16 V MINIMUM
2. U1, U2 : ICM 7218 D
1. DS1 - DS16 : L.E.D. MAN8940

NOTES: UNLESS OTHERWISE SPECIFIED

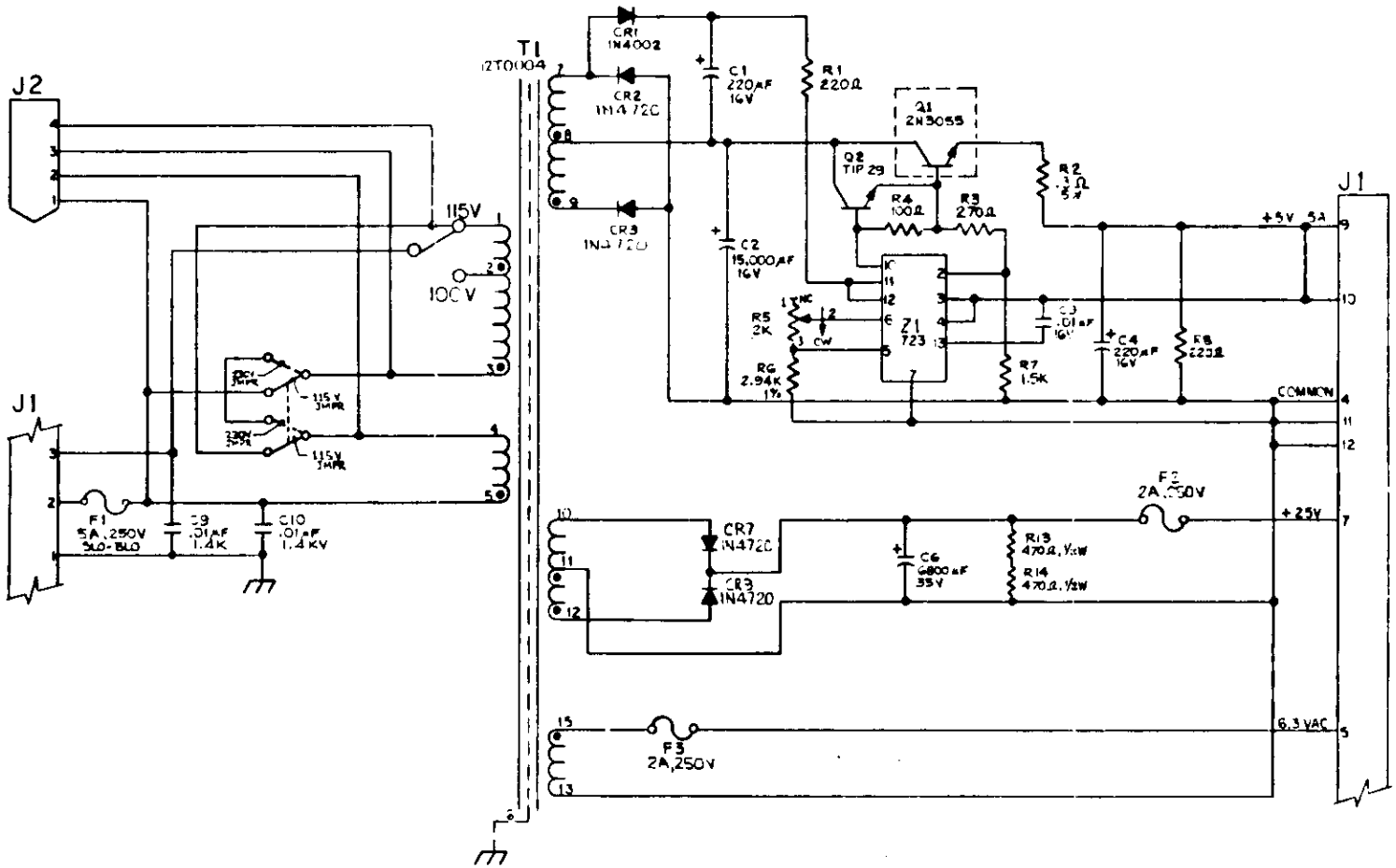
31 MAY 1983

MATERIAL:	DRAWN BY: Dawscott	DATE	CINEMATRONICS INC El Cajon Ca. 92020
	PROJECT ENGR:	DATE	DWG TITLE: STARCOM DISPLAY
	RELEASE APPROV:	DATE	
FINISH:	DO NOT SCALE DWG		
	TOLERANCE: UNLESS OTHERWISE SPECIFIED		MODEL NO. / DWG SIZE C / DWG NO. 81-12036-01 / REV. B
	PROJECTION:	SCALE: FULL	CODE IDENT. / SHEET 1 OF 1



DATA POWER
10842-32
DATA POWER P.S.

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	PRODUCTION RELEASE, ECO 0337	7/8/83	
	B	ADDED PER ECO 0420, CHG F1 TO SLO-BLO	9/13/83	



QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
		PARTS LIST	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE
FRACTIONS DECIMALS ANGLES
XX ± ±
XXX ±

CONTRACT NO

APPROVALS	DATE
DRAWN	
CHECKED	

MATERIAL

FINISH

DO NOT SCALE DRAWING

SCHEMATIC

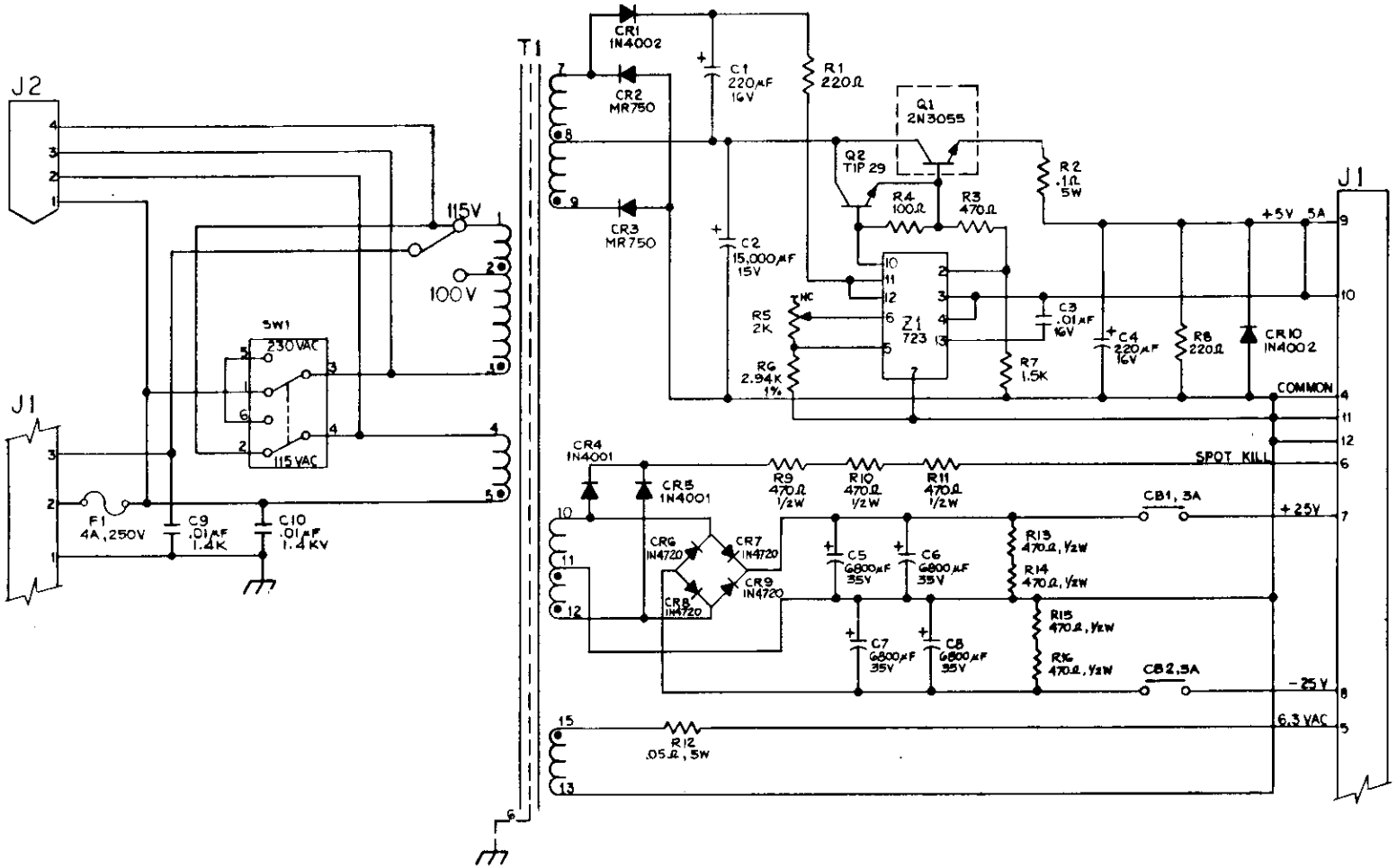
SIZE	CODE IDENT NO	DRAWING NO	REV
C		12A0100-00	B

SCALE SHEET 1 OF 1

NEXT ASSY	USED ON
02A0067-00	C100

APPLICATION

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	01	PROTOTYPE	4 DEC 80	RAL
	A	PRODUCTION RELEASE	13 JAN 81	
	B	ADD C9, 10.- SEE ECO 0028 "A" DWG NO. FROM 12A0028-00	29 JAN 81	RAL



QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION

PARTS LIST

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ± DECIMALS XX ± XXX ± ANGLES ±

MATERIAL

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN C. ESCALERAS	4 DEC 80
CHECKED R. Boehm	12/4/80

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION WHICH SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR MANUFACTURING OR OTHERWISE, EXCEPT WITH THE PRIOR WRITTEN PERMISSION OF NATIONAL POWER TECHNOLOGY.

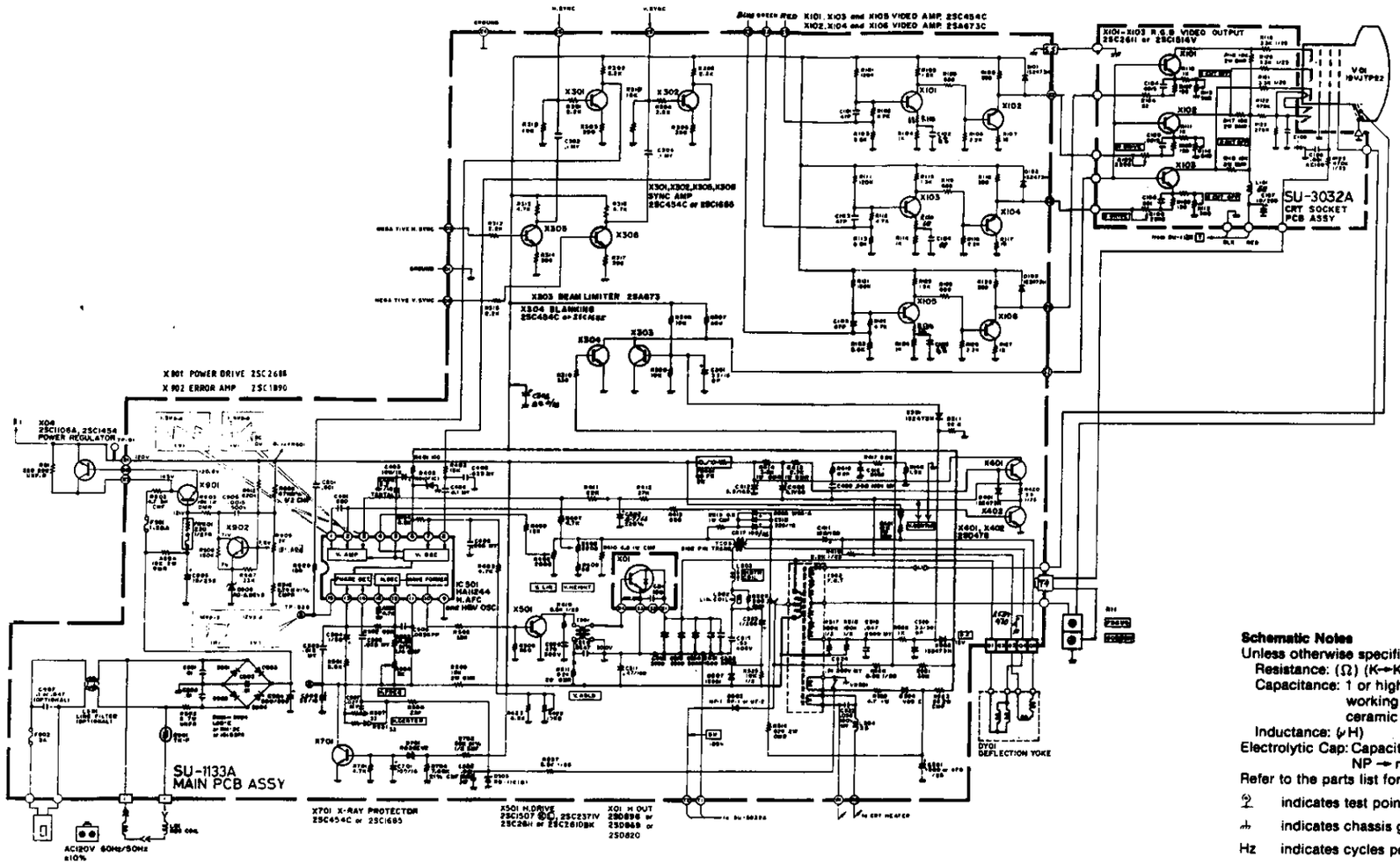
62A0013-00	0028
NEXT ASSY	USED ON
APPLICATION	

NATIONAL POWER TECHNOLOGY

POWER SUPPLY

SIZE	CODE IDENT NO	DRAWING NO.	REV
C		72-10842-40	B

SCALE NONE SHEET 1 OF 1



00-4147-04
G07-CB0

Schematic Notes

Unless otherwise specified

Resistance: (Ω) (K→KΩ, M→MΩ), 1/4 (W) carbon resistor

Capacitance: 1 or higher→ (pF), less than 1→ (μF)
working voltage→ 50 (V)
ceramic capacitor

Inductance: (μH)

Electrolytic Cap: Capacitance Value (μF)/working voltage (V),
NP→ non-polar (or bipolar) electrolytic cap.

Refer to the parts list for additional component information.

⏚ indicates test point connection

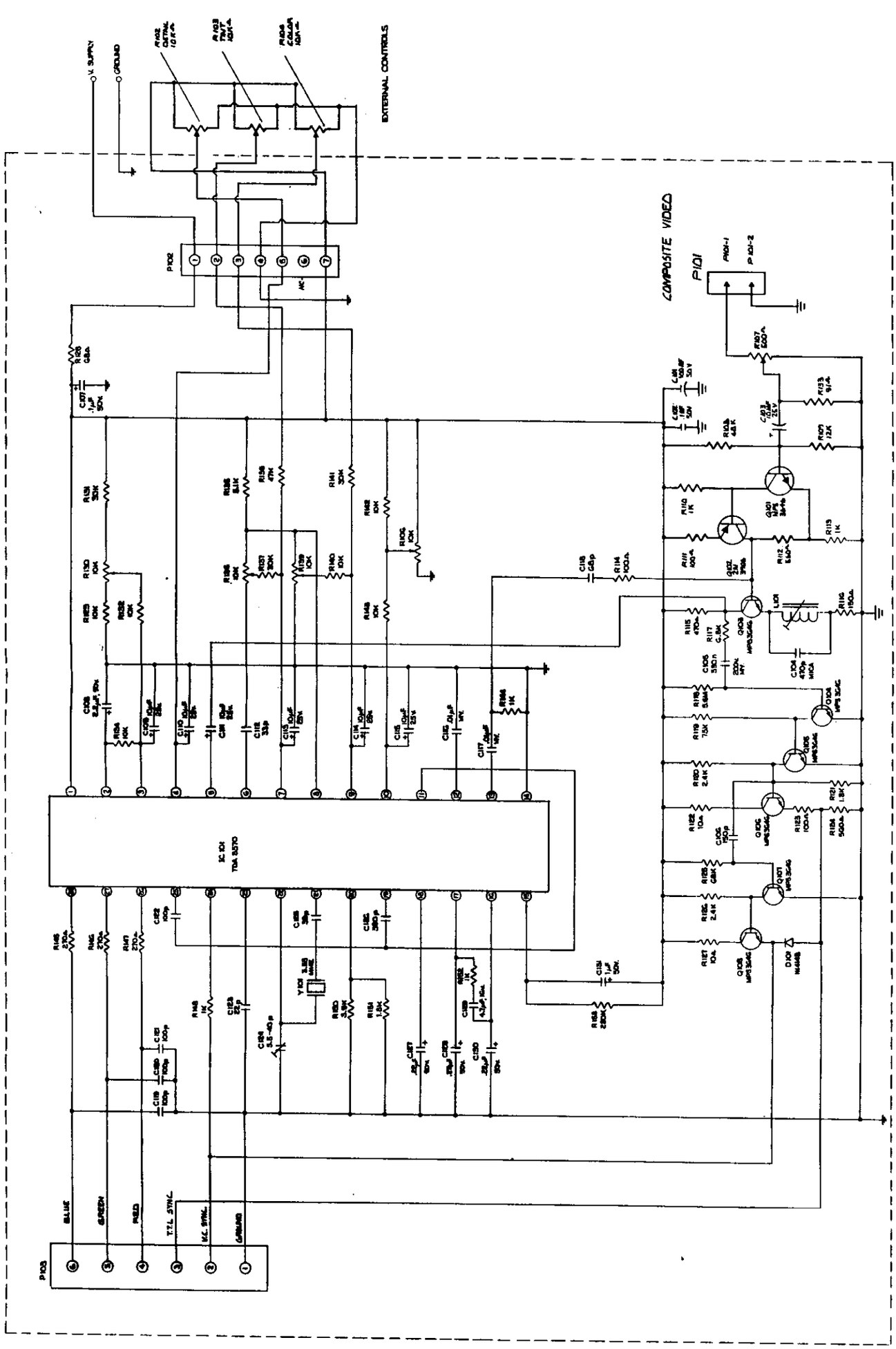
⏚ indicates chassis ground unless otherwise specified

Hz indicates cycles per second

For **safety** purposes (and continuing reliability)

⚠ replace all components marked with safety symbol with identical type.
NOTE: FR→ fusible resistor

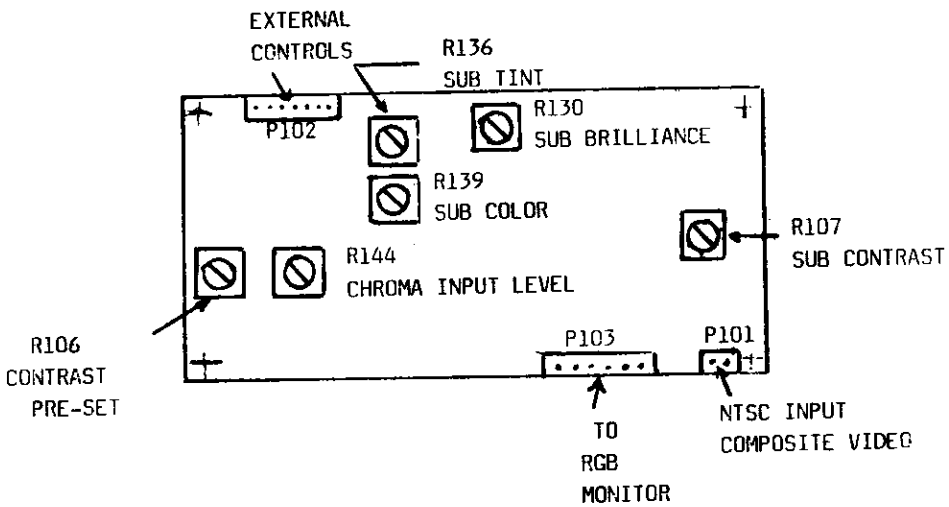
Parts identification on circuit boards:
e.g. SU1126A (R107 = R1107)
SU3030A (R113 = R3113)


EXTERNAL CONTROLS
COMPOSITE VIDEO
P101
P102
P103
IC 101
TBA 8370
BLUE
GREEN
RED
T.T.L. SYNC.
M.C. SYNC.
GROUND

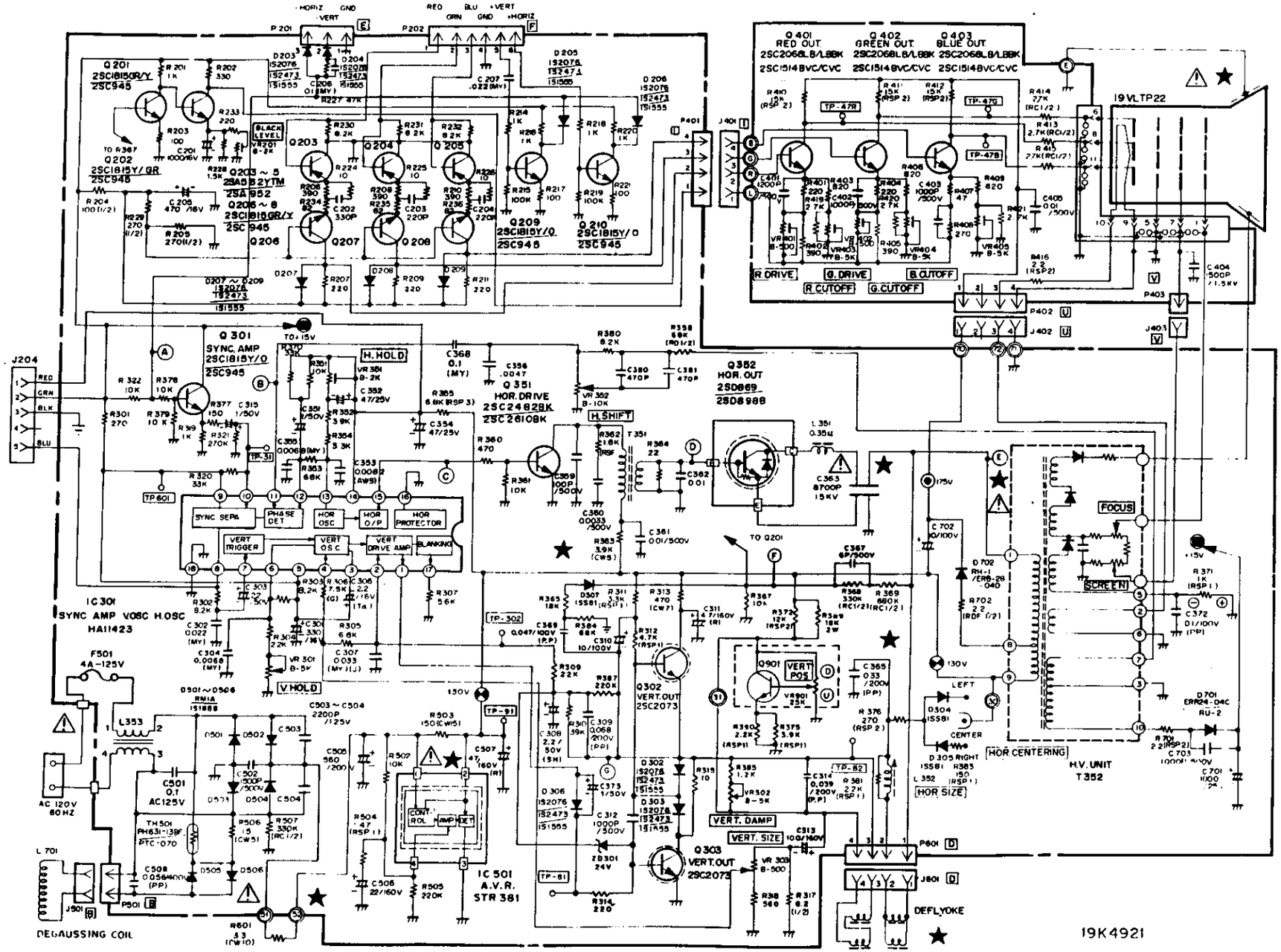
NTSC DECODER SPECIFICATIONS

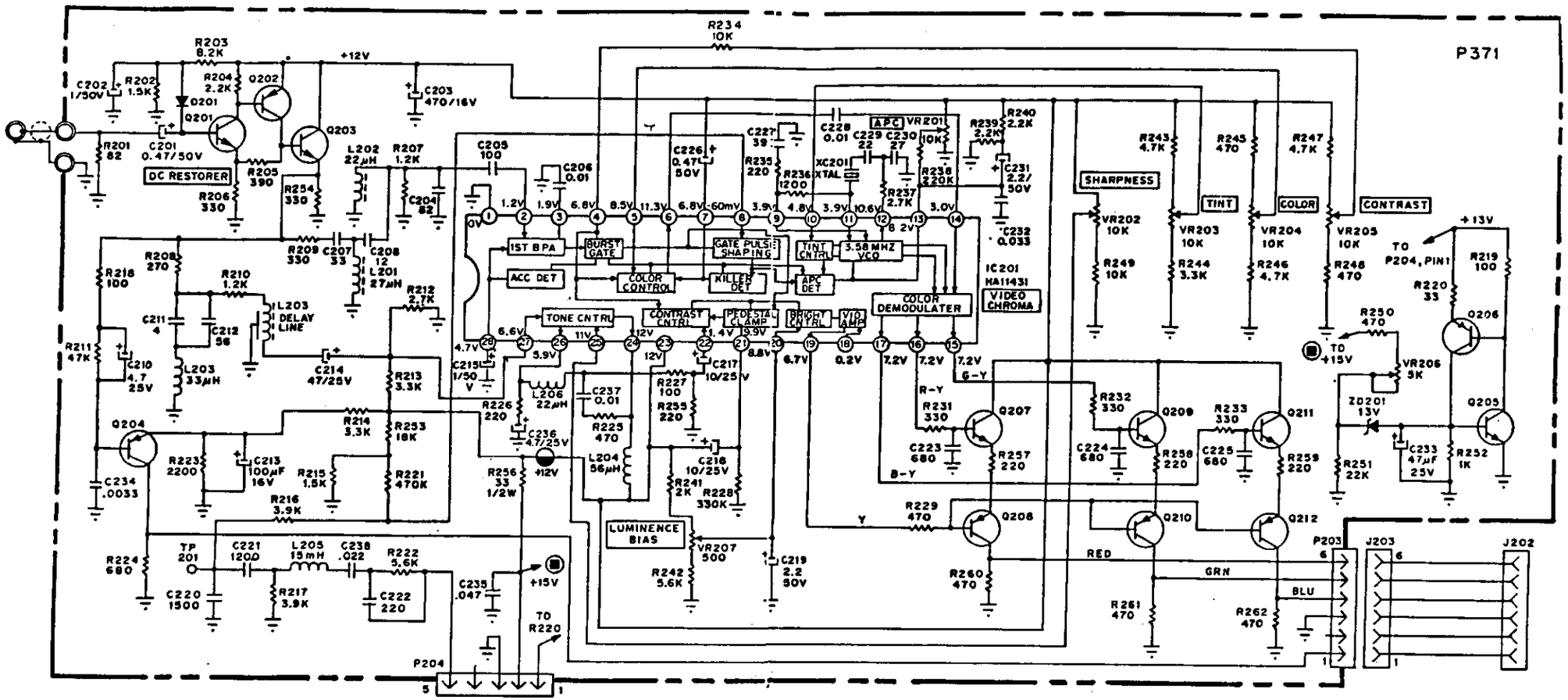
Pin Outs

P101-1 75 ohm Input
P101-2 Ground
P102-1 Vs Supply (16V)
P102-2 External Tint Wiper
P102-3 External Color Wiper
P102-4 Grount to Control
P102-5 External Detail Wiper
P102-6 Not Used
P102-7 Vcc to Control (12V)
P103-1 Ground
P103-2 Blanking Output
P103-3 Positive Composite Sync.
P103-4 Red Output
P103-5 Green Output
P103-6 Blue Output



19" COLOR GAME MONITOR SCHEMATIC DIAGRAM





WELLS GARDNER NTSC DECODER SCHEMATIC

1.9.84

MAGICOM WIRING HARNESS

FROM	PIN	TO	PIN	SIGNAL
LF	HOT	SW	COMMON	AC LINE HOT
SW	N/OPEN	PS1	3	AC LINE HOT
SW	N/OPEN	VDP	HOT	AC LINE HOT
LF	NEUTRAL	PS1	2	AC LINE NEUTRAL
LF	NEUTRAL	VDP	NEUTRAL	AC LINE NEUTRAL
PS2	1	ISO	PRI	115V AC #1 HOT
PS2	3	LAMP	HOT	115V AC #2 HOT
PS2	3	FAN	HOT	115V AC #2 HOT
PS2	2	ISO	PRI	115V AC #1 NEUTRAL
PS2	4	LAMP	NEUTRAL	115V AC #2 NEUTRAL
PS2	4	FAN	NEUTRAL	115V AC #2 NEUTRAL
MON	FRAME	LAMP	FRAME	FRAME GROUND
PS1	1	MON	FRAME	FRAME GROUND
LF	FRAME	PS1	1	FRAME GROUND
LF	FRAME	CPU	FRAME	FRAME GROUND
CPU	FRAME	COIN	3	FRAME GROUND
COIN	3	OCP	9	FRAME GROUND
OCP	9	CP	7	FRAME GROUND
PS1	9	CPU	3	+5V
PS1	10	CPU	4	+5V
PS1	11	CPU	7	+5V RETURN
PS1	7	CPU	30	+25V
PS1	12	CPU	8	+25V RETURN
PS1	5	COIN	8	6.3V AC LAMPS
PS1	4	COIN	9	6.3V AC LAMPS RETURN
COIN	1	CPU	10	COIN SLOT 0
COIN	2	CPU	14	COIN SLOT 1
COIN	7	CPU	11	COIN RETURN
CP	2	CPU	6	2 PLAYER START
CP	3	CPU	2	1 PLAYER START
CP	4	CPU	1	JOYSTICK RIGHT
CP	5	CPU	29	SWORD/ACTION
CP	6	CPU	5	JOYSTICK LEFT
CP	8	CPU	9	JOYSTICK DOWN
CP	9	CPU	13	JOYSTICK UP
CP	1	CPU	12	CONTROL PANEL RETURN
OCP	4	CPU	33	COIN COUNTER
OCP	8	CPU	32	COIN COUNTER RETURN
OCP	3	VDP	CENTER	DISC AUDIO (LEFT)
OCP	1	VDP	SHIELD	DISC AUDIO RETURN (LEFT)
OCP	5	VDP	CENTER	DISC AUDIO (RIGHT)

1.9.84

OCP	7	VDP	SHIELD	DISC AUDIO RETURN (RIGHT)
OCP	2	CPU	24	VOLUME OUT (LEFT)
OCP	1	CPU	23	VOLUME OUT RETURN (LEFT)
OCP	6	CPU	16	VOLUME OUT (RIGHT)
OCP	7	CPU	15	VOLUME OUT RETURN (RIGHT)
CPU	28	SPKR	L+	SPEAKER (LEFT)
CPU	27	SPKR	L-	SPEAKER RETURN (LEFT)
CPU	20	SPKR	R+	SPEAKER (RIGHT)
CPU	19	SPKR	R-	SPEAKER RETURN (RIGHT)

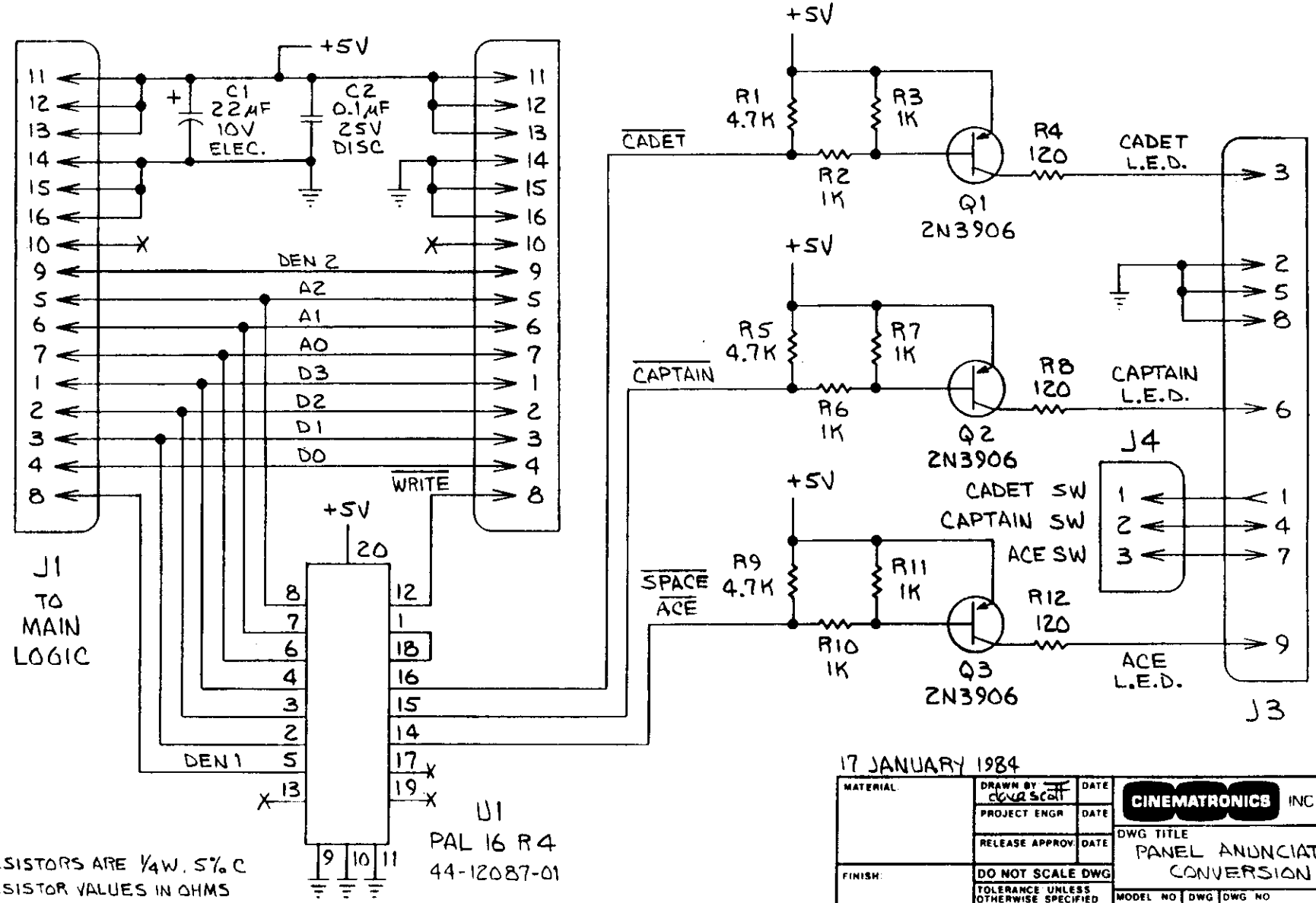
PS1 = POWER SUPPLY 12 PIN CONNECTOR
PS2 = POWER SUPPLY 4 PIN CONNECTOR
FAN = COOLING FAN
SW = POWER SWITCH
CPU = LOGIC BOARD
LAMP = FLORESCENT LAMP
CP = CONTROL PANEL
SPKR = SPEAKERS
COIN = COIN DOOR
MON = MONITOR
VDP = VIDEODISC PLAYER
LF = AC LINE FILTER
OCP = OPERATOR CONVENIENCE PANEL
ISO = MONITOR ISOLATION TRANSFORMER

NOTE: GAMES EQUIPPED WITH PR7820 DISC PLAYERS HAVE DISC PLAYER FRAME GROUND TIED TO LINE FILTER FRAME GROUND.

REVISIONS

REV	DESCRIPTION	DATE	APPROVED

J2 TO DISPLAY



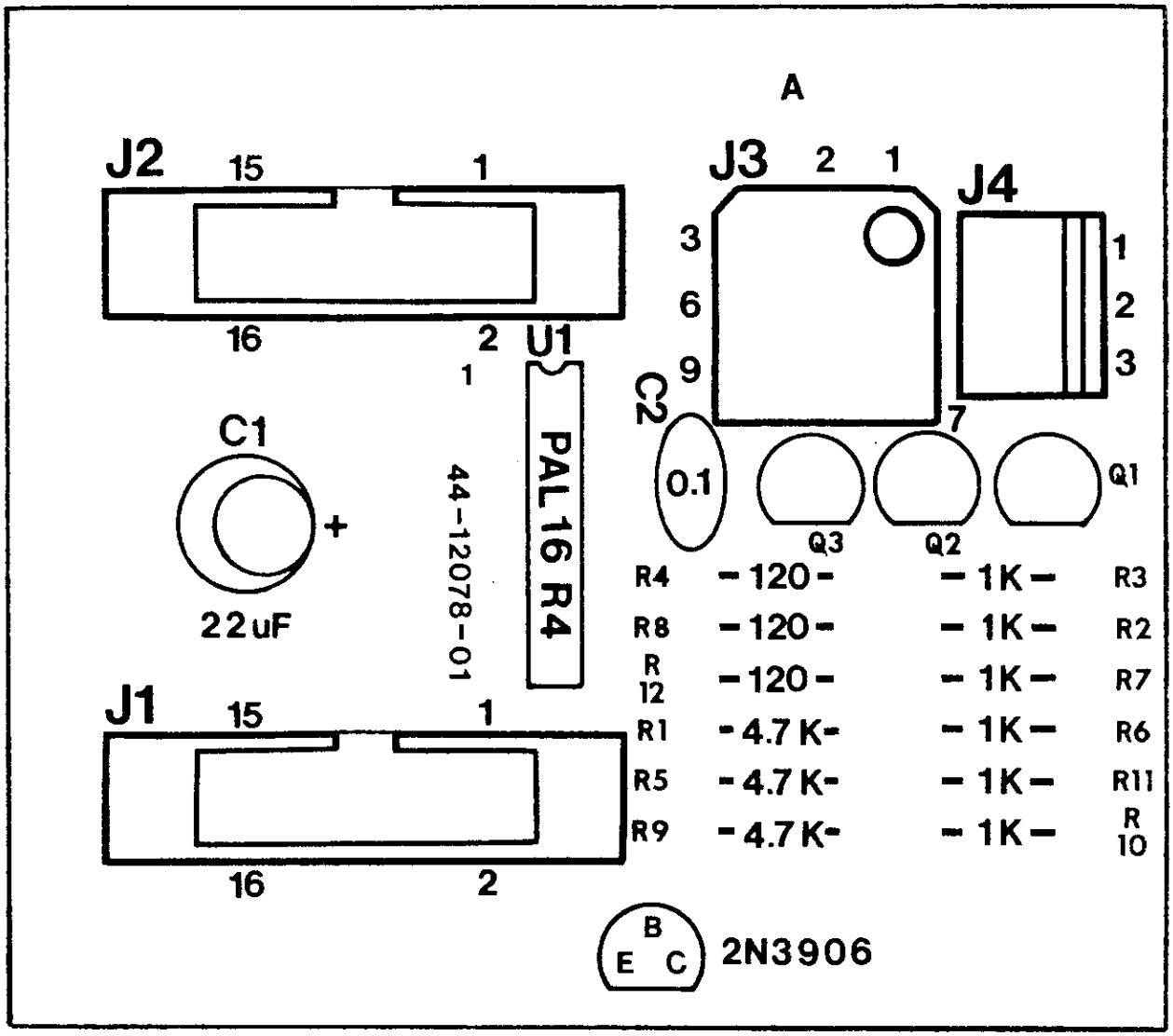
17 JANUARY 1984

MATERIAL	DRAWN BY dave scott	DATE	CINEMATRONICS INC El Cajon Ca 92020
	PROJECT ENGR	DATE	DWG TITLE: PANEL ANUNCIATOR CONVERSION
	RELEASE APPROV	DATE	
FINISH	DO NOT SCALE DWG		
	TOLERANCE UNLESS OTHERWISE SPECIFIED		MODEL NO / DWG SIZE C / DWG NO 72-12079-01 / REV A
	PROJECTION / SCALE		CODE IDENT / SHEET 1 OF 1

2. RESISTORS ARE 1/4W, 5% C
1. RESISTOR VALUES IN OHMS
*NOTES: UNLESS OTHERWISE SPECIFIED

BRUNING 40-21 4043

APPLICATION		REVISIONS			
NEXT ASSY	USED ON	APPROVED	DATE	DESCRIPTION	REV



UNLESS OTHERWISE SPECFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRAC. ± DEC. .XX± .XXX± ANGL. ±	APPROVALS	DATE
	BY davescott	1-28-84
	CHK	
	APPD	
	APPD	
	APPD	
MATERIAL		
FINISH		
DO NOT SCALE DWG		

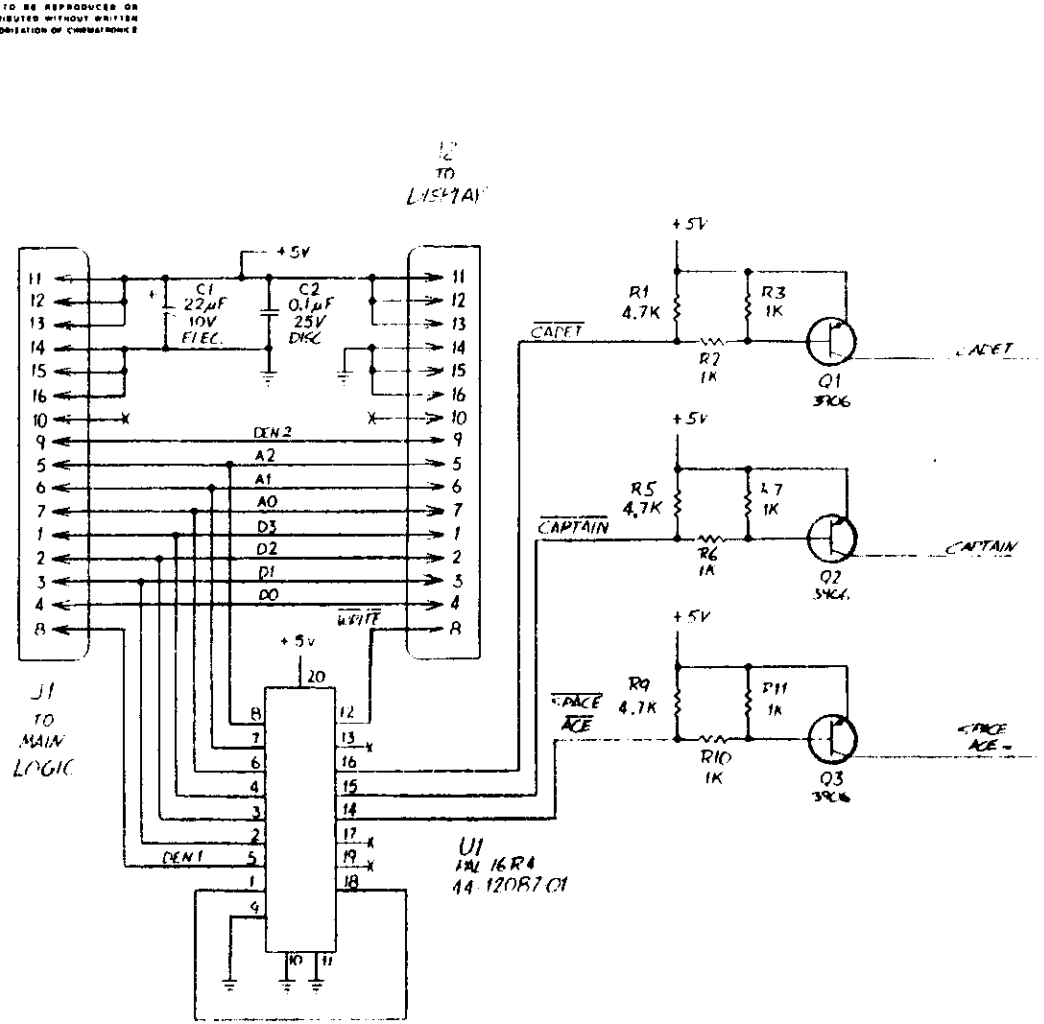
CINEMATRONICS INC. El Cajon Ca. 92020

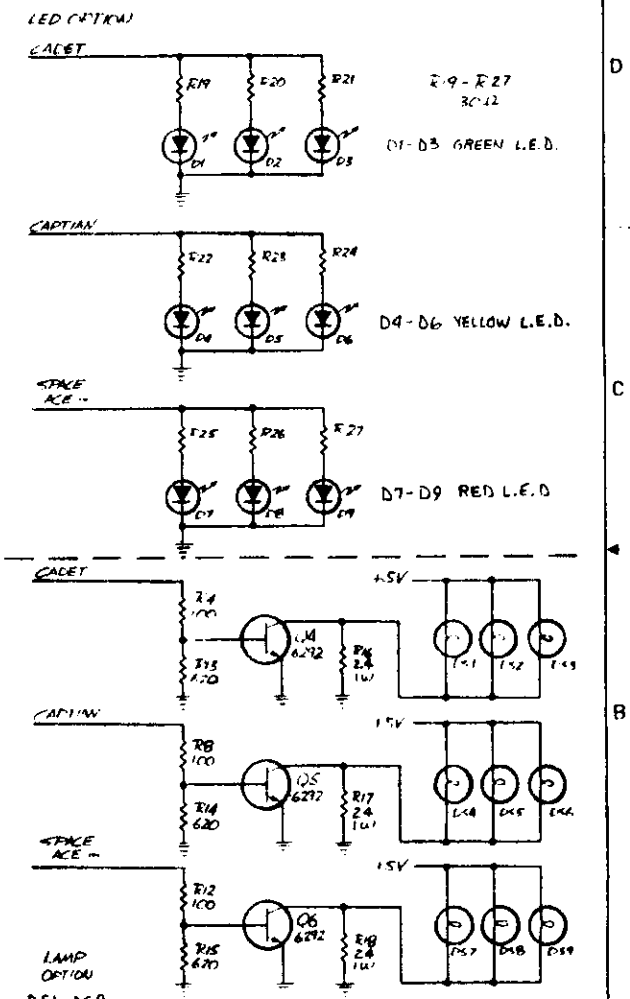
PANEL ANNUNCIATOR BOARD CONVERSION

SIZE	DRAWING NUMBER	
A	REV A	81-12079-01

SCALE 2:1 | SHEET 1 OF 1

REVISIONS





1. RESISTOR VALUES ARE IN OHMS, ¼W, 5%C.

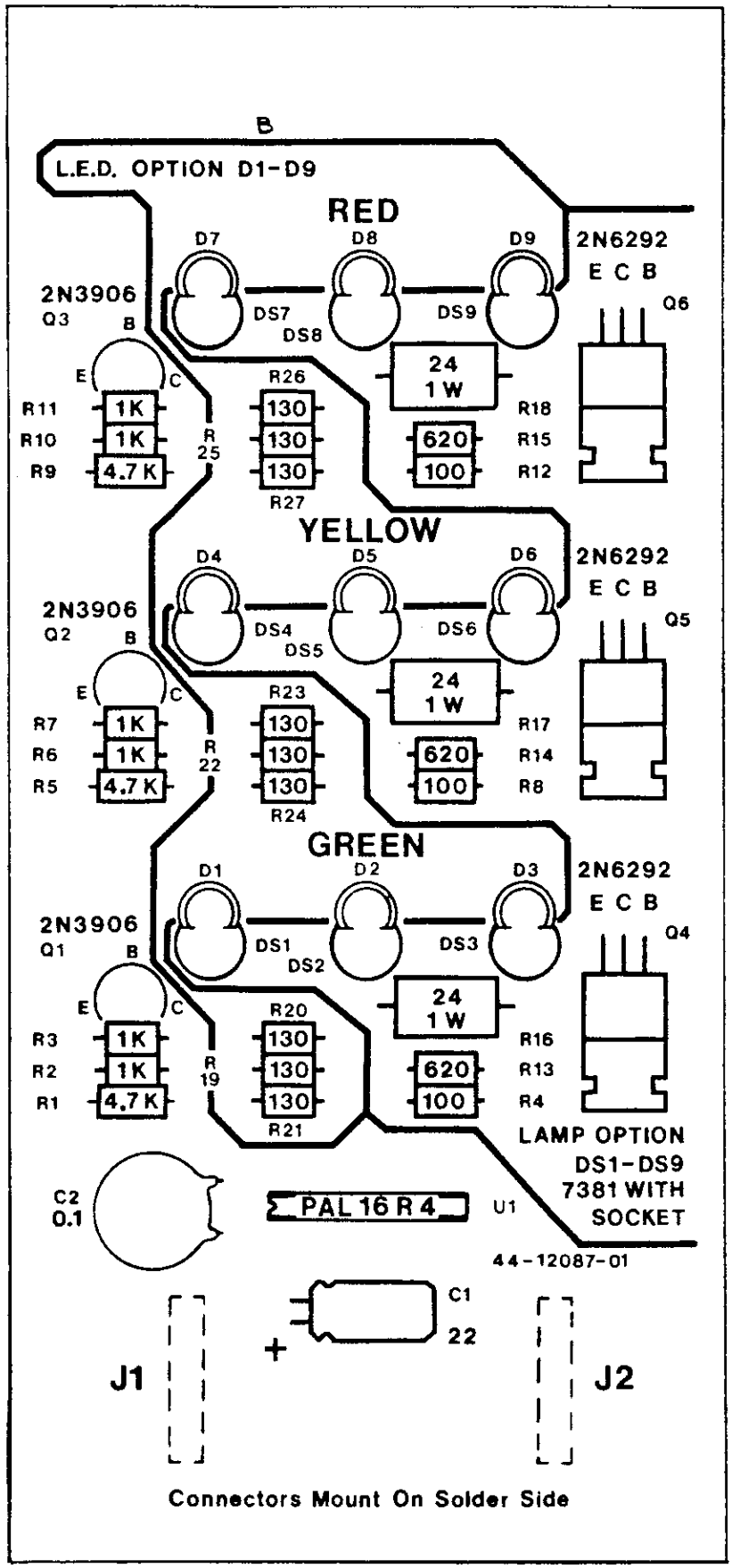
NOTES UNLESS OTHERWISE SPECIFIED

CINEMATRONICS INC.

DWG TITLE: PANEL ANNUNCIATOR WITH LAMPS

SIZE D | DWG NO 12-12079-02 | REV A

SHEET 1 OF 1



1 FEBRUARY 1984

CINEMATRONICS INC. El Cajon Ca. 92020

DWG TITLE: ANNUNCIATOR WITH LAMPS

MODEL NO. | DWG SIZE B | DWG NO. 81-12079-02 | REV. B | CODE IDENT. | SHEET 1 OF 1

DRAWN BY: dave scott | DATE | PROJECT ENGR: | DATE | RELEASE APPROV: | DATE

DO NOT SCALE DWG

TOLERANCE: UNLESS OTHERWISE SPECIFIED

PROJECTION: | SCALE: 2:1

MATERIAL:

FINISH: BREAK ALL SHARP EDGES AND DEBURR ALL HOLES.