

Engine Family Maintenance Print Manual

TYMNET[®]

**MCDONNELL DOUGLAS
NETWORK SYSTEMS COMPANY**

Network Products
Documentation

TYMNET Engine Family Maintenance Print Manual Volume One

Version 1

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Publication Number NPD-604

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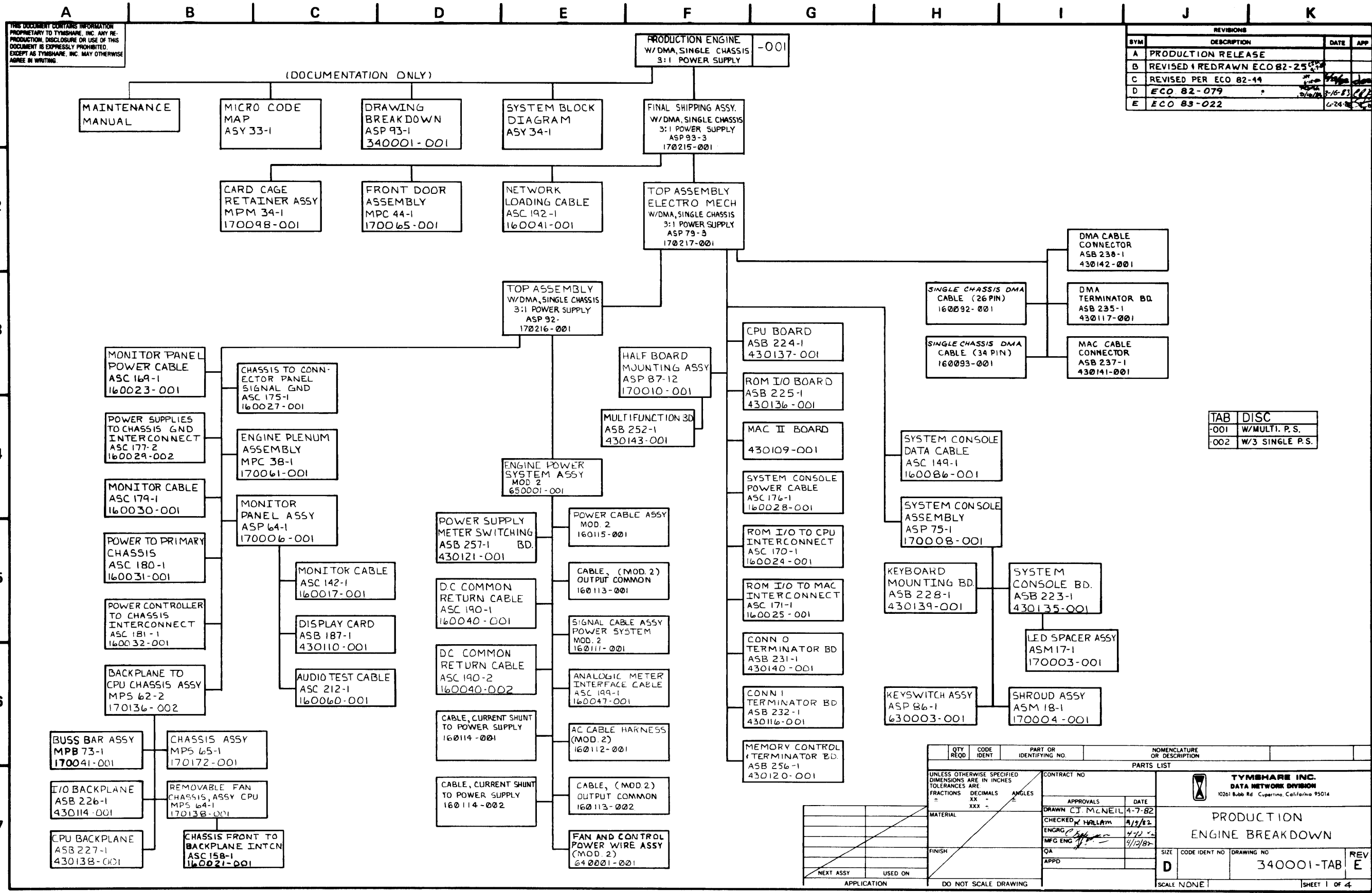
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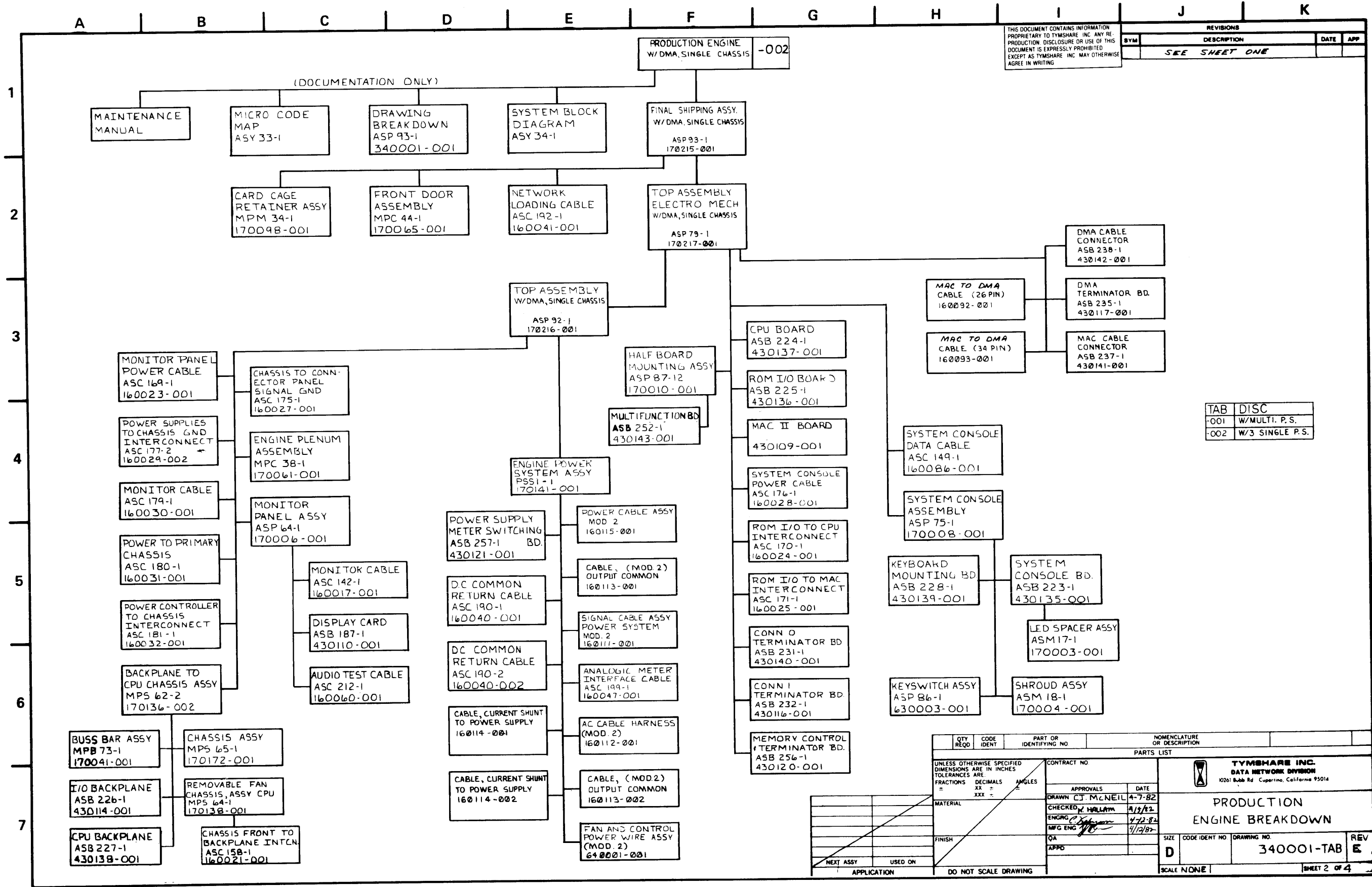
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REVISIONS			
SYM	DESCRIPTION	DATE	APP
A	PRODUCTION RELEASE		
B	REVISED & REDRAWN ECO 82-25		
C	REVISED PER ECO 82-14		
D	ECO 82-079	2/16/82	
E	ECO 83-022	4-24-82	

TAB	DISC
-001	W/MULTI. P.S.
-002	W/3 SINGLE P.S.

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 ± °			
MATERIAL		CONTRACT NO.	
FINISH		APPROVALS DATE	
NEXT ASSY USED ON APPLICATION		DRAWN C.J. McNEIL 4-7-82	
		CHECKED HALLAM 4/15/82	
		ENGRG [Signature] 4/21/82	
		MFG ENG [Signature] 4/22/82	
		QA	
		APPD	
		TYMSHARE INC. DATA NETWORK DIVISION 10261 Bubb Rd. Cupertino, California 95014	
		PRODUCTION ENGINE BREAKDOWN	
SIZE	CODE IDENT NO	DRAWING NO	REV
D		340001-TAB	E
SCALE NONE		SHEET 1 OF 4	



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REVISIONS			
BY	DESCRIPTION	DATE	APP
	SEE SHEET ONE		

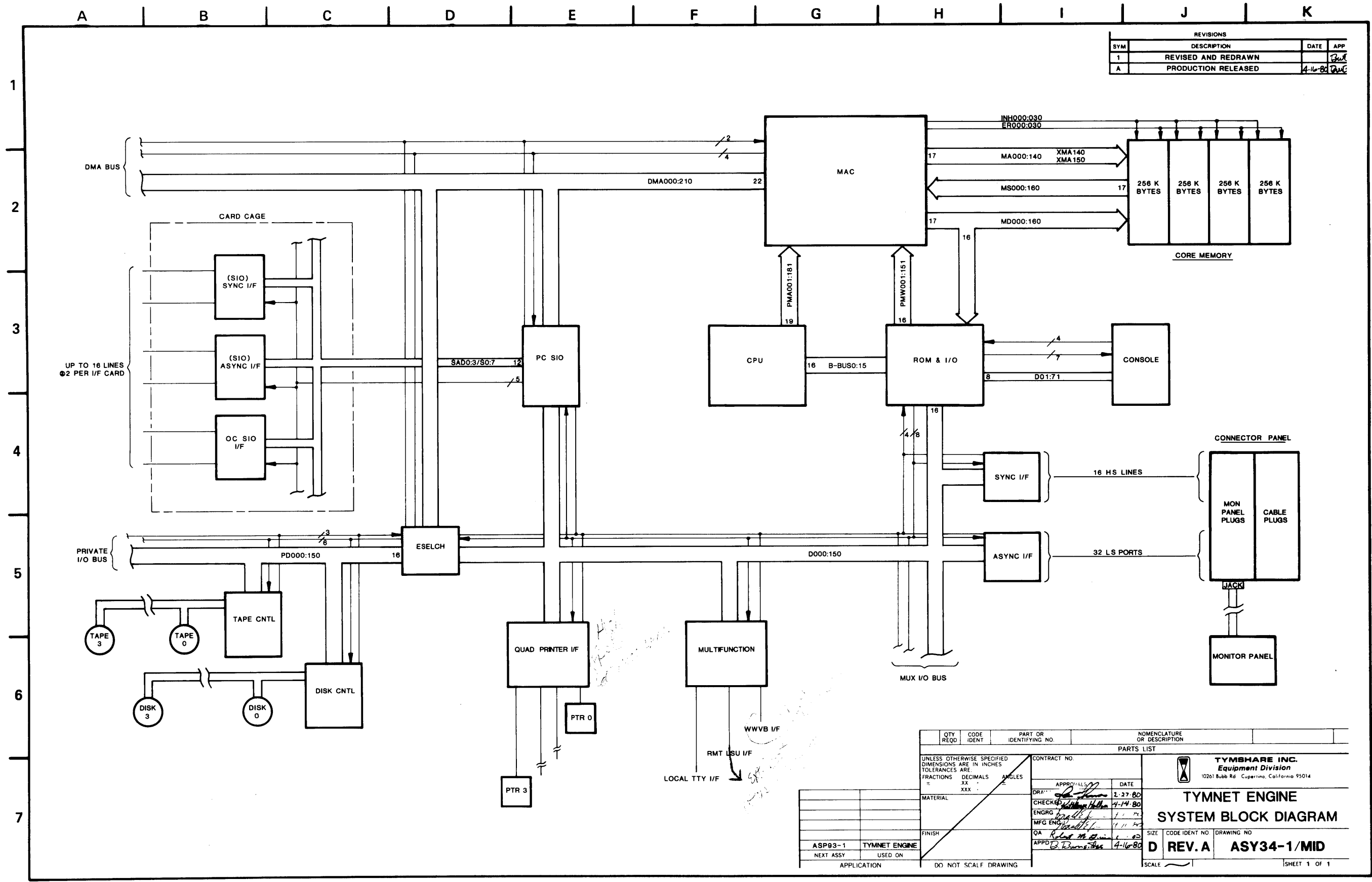
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-001	W/MULTI. P.S.
-002	W/3 SINGLE P.S.

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PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES		CONTRACT NO.	
DRAWN <i>CJ McNEIL</i>		DATE 4-7-82	
CHECKED <i>HULLAM</i>		DATE 4/1/82	
ENGRG <i>[Signature]</i>		DATE 4/12/82	
MFG ENG <i>[Signature]</i>		DATE 4/12/82	
QA			
APPD			
NEXT ASSY		USED ON	
APPLICATION		DO NOT SCALE DRAWING	
SCALE NONE		SHEET 2 OF 4	

TYMSHARE INC.
DATA NETWORK DIVISION
10261 Robb Rd. Cupertino, California 95014

PRODUCTION ENGINE BREAKDOWN

SIZE: D CODE IDENT NO: 340001-TAB REV: E



REVISIONS			
SYM	DESCRIPTION	DATE	APP
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A	PRODUCTION RELEASED	4-16-80	<i>[Signature]</i>

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TYMNET ENGINE		MFG ENG <i>[Signature]</i>	4-11-80
DO NOT SCALE DRAWING		QA <i>[Signature]</i>	4-11-80
		APPD <i>[Signature]</i>	4-16-80
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		SIZE	CODE IDENT NO
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		DRAWING NO	
		ASY34-1/MID	
		SCALE	SHEET 1 OF 1

A B C D E F G H I J K

1
2
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4
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6
7

ROW #	U	1	2	3	4	5	6	7	
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LR0	WR0	LR0	WR0	LR0	WR0	LR0	WR0	LR0	WR0
ER00	INHO	ER00	INHO	ER00	INHO	ER00	INHO	ER00	INHO
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GND	P5	GND	P5	GND	P5	GND	P5	GND	P5

SYM	DESCRIPTION	DATE	APP
E	CORRECTED PER ECO # 79-80 J. SINN 9-28-79		
F	REV PER ECO # 81-03		
G	REV PER ECO 81-116		
H	ECO 82-13B	L. HERRICKS 6-4-82	

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APPLICATION			DO NOT SCALE DRAWING		
DRAWN: PATRICK THOMAS 5:31:79		CHECKED: Kathy Johnson 11-2-79		ENGRG	
MFG ENG		QA		APPD	
SIZE		CODE IDENT NO		DRAWING NO	
D		REV. H		440138-001	
SCALE		NONE		SHEET 1 OF 1	

TYMSHARE INC.
Equipment Division
220 S. Bas Rd. Cupertino, California 95014

C P U BACKPLANE
VIEWED FROM REAR

	A	B	C	D	E	F	G	H	I	J	K					
	ROW 2 0	ROW 1	ROW 2 1	ROW 1	ROW 2 2	ROW 1	ROW 2 3	ROW 1	ROW 2 4	ROW 1	ROW 2 5	ROW 1	ROW 2 6	ROW 1	ROW 2 7	ROW 1
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2																
3																
4																
5																
6																
7																

REVISIONS			
SYM	DESCRIPTION	DATE	APP
I	REV PER ECO 73-15	JPT	8-8-79
D	PRODUCTION RELEASED		1-24-80
E	REV PER E.C.O. 80-117#81-04		1-22-81
F	REV PER ECO 81-116		

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PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES		CONTRACT NO.	
MATERIAL		APPROVALS	
FINISH		DATE	
NEXT ASSY USED ON		DRAWN JAN THOMAS 8-7-79	
APPLICATION		CHECKED BY [Signature] 4-8-80	
		ENGRG [Signature] 4-8-80	
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		QA [Signature] 9-12-80	
		APPD [Signature] 4-24-80	
		TYMESHARE INC. Equipment Division 1021 8th St. Cupertino California 95014	
		I/O BACKPLANE (CBB185) VIEWED FROM REAR	
		SIZE CODE IDENT NO DRAWING NO	
		D REV. F. 41011-001	
		SCALE NONE SHEET 1 OF 1	

1
2
3
4
5
6
7

GND	P5	GND	P5	GND	P5	GND	P5	GND	P5	GND	P5	GND	P5	GND	P5	GND	P5
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D030	D020	D030	D020	D030	D020	D030	D020	D030	D020	D030	D020	D030	D020	D030	D020	D030	D020
D050	D040	D050	D040	D050	D040	D050	D040	D050	D040	D050	D040	D050	D040	D050	D040	D050	D040
D070	D060	D070	D060	D070	D060	D070	D060	D070	D060	D070	D060	D070	D060	D070	D060	D070	D060
D090	D080	D090	D080	D090	D080	D090	D080	D090	D080	D090	D080	D090	D080	D090	D080	D090	D080
D110	D100	D110	D100	D110	D100	D110	D100	D110	D100	D110	D100	D110	D100	D110	D100	D110	D100
D130	D120	D130	D120	D130	D120	D130	D120	D130	D120	D130	D120	D130	D120	D130	D120	D130	D120
D150	D140	D150	D140	D150	D140	D150	D140	D150	D140	D150	D140	D150	D140	D150	D140	D150	D140
ADRS0	SR0	ADRS0	SR0	ADRS0	SR0	ADRS0	SR0	ADRS0	SR0	ADRS0	SR0	ADRS0	SR0	ADRS0	SR0	ADRS0	SR0
CMDO	DR0	CMDO	DR0	CMDO	DR0	CMDO	DR0	CMDO	DR0	CMDO	DR0	CMDO	DR0	CMDO	DR0	CMDO	DR0
DA0	CLO70	DA0	CLO70	DA0	CLO70	DA0	CLO70	DA0	CLO70	DA0	CLO70	DA0	CLO70	DA0	CLO70	DA0	CLO70
TACK20	RACK20	TACK20	RACK20	TACK20	RACK20	TACK20	RACK20	TACK20	RACK20	TACK20	RACK20	TACK20	RACK20	TACK20	RACK20	TACK20	RACK20
ATN20	SYNO	ATN20	SYNO	ATN20	SYNO	ATN20	SYNO	ATN20	SYNO	ATN20	SYNO	ATN20	SYNO	ATN20	SYNO	ATN20	SYNO
PFDT0	UVDET	PFDT0	UVDET	PFDT0	UVDET	PFDT0	UVDET	PFDT0	UVDET	PFDT0	UVDET	PFDT0	UVDET	PFDT0	UVDET	PFDT0	UVDET
3800	3800	3800	3800	3800	3800	3800	3800	3800	3800	3800	3800	3800	3800	3800	3800	3800	3800
ATN10	SCLR0	ATN10	SCLR0	ATN10	SCLR0	ATN10	SCLR0	ATN10	SCLR0	ATN10	SCLR0	ATN10	SCLR0	ATN10	SCLR0	ATN10	SCLR0
TACK10	RACK10	TACK10	RACK10	TACK10	RACK10	TACK10	RACK10	TACK10	RACK10	TACK10	RACK10	TACK10	RACK10	TACK10	RACK10	TACK10	RACK10
TDACK0	RDACK0	TDACK0	RDACK0	TDACK0	RDACK0	TDACK0	RDACK0	TDACK0	RDACK0	TDACK0	RDACK0	TDACK0	RDACK0	TDACK0	RDACK0	TDACK0	RDACK0
MA060	MA050	MA060	MA050	MA060	MA050	MA060	MA050	MA060	MA050	MA060	MA050	MA060	MA050	MA060	MA050	MA060	MA050
MA080	MA070	MA080	MA070	MA080	MA070	MA080	MA070	MA080	MA070	MA080	MA070	MA080	MA070	MA080	MA070	MA080	MA070
MA100	MA090	MA100	MA090	MA100	MA090	MA100	MA090	MA100	MA090	MA100	MA090	MA100	MA090	MA100	MA090	MA100	MA090
MA120	MA110	MA120	MA110	MA120	MA110	MA120	MA110	MA120	MA110	MA120	MA110	MA120	MA110	MA120	MA110	MA120	MA110
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MBZ0	DUA0	MBZ0	DUA0	MBZ0	DUA0	MBZ0	DUA0	MBZ0	DUA0	MBZ0	DUA0	MBZ0	DUA0	MBZ0	DUA0	MBZ0	DUA0
BHO	DGND	BHO	DGND	BHO	DGND	BHO	DGND	BHO	DGND	BHO	DGND	BHO	DGND	BHO	DGND	BHO	DGND
TPCO	RPC0	TPCO	RPC0	TPCO	RPC0	TPCO	RPC0	TPCO	RPC0	TPCO	RPC0	TPCO	RPC0	TPCO	RPC0	TPCO	RPC0
ATN00	N15	ATN00	N15	ATN00	N15	ATN00	N15	ATN00	N15	ATN00	N15	ATN00	N15	ATN00	N15	ATN00	N15
REQ0	P15	REQ0	P15	REQ0	P15	REQ0	P15	REQ0	P15	REQ0	P15	REQ0	P15	REQ0	P15	REQ0	P15
GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
GND	P5	GND	P5	GND	P5	GND	P5	GND	P5	GND	P5	GND	P5	GND	P5	GND	P5

REVISIONS			
SYM	DESCRIPTION	DATE	APP
A	PRODUCTION RELEASE	5-21-80	[Signature]
B	REV PER ECO 81-116		

CONNECTOR 0

CONNECTOR 1

* - SIGNAL PRESENT WHEN USING ESELCH
 * - NOT USED BY TYMSHARE

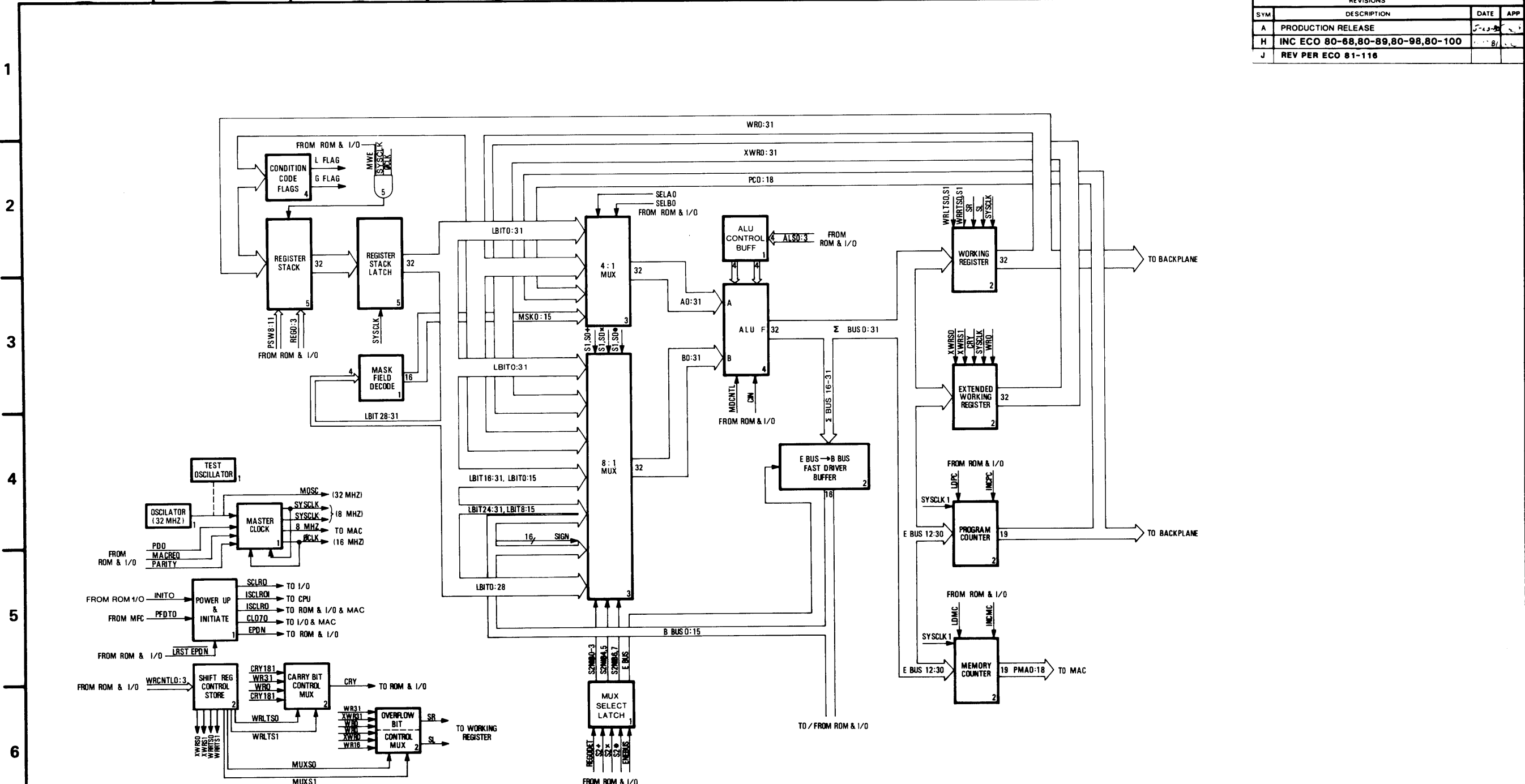
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QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES xxx			
MATERIAL		CONTRACT NO	
FINISH		APPROVAL	
NEXT ASSY USED ON		DRAWN [Signature] DATE 5-19-80	
APPLICATION		CHECKED [Signature] DATE 5-21-80	
DO NOT SCALE DRAWING		ENGRG [Signature]	
SCALE		MFG ENG [Signature]	
SCALE		QA [Signature] DATE 5-21-80	
SCALE		SIZE CODE IDENT NO DRAWING NO	
SCALE		D REV.B 630007-001	
SCALE		SHEET 1 OF 1	

TYMSHARE INC. Equipment Division 10201 Bubb Rd Cupertino, California 95014

BACKPLANE DMA CONFIGURATION

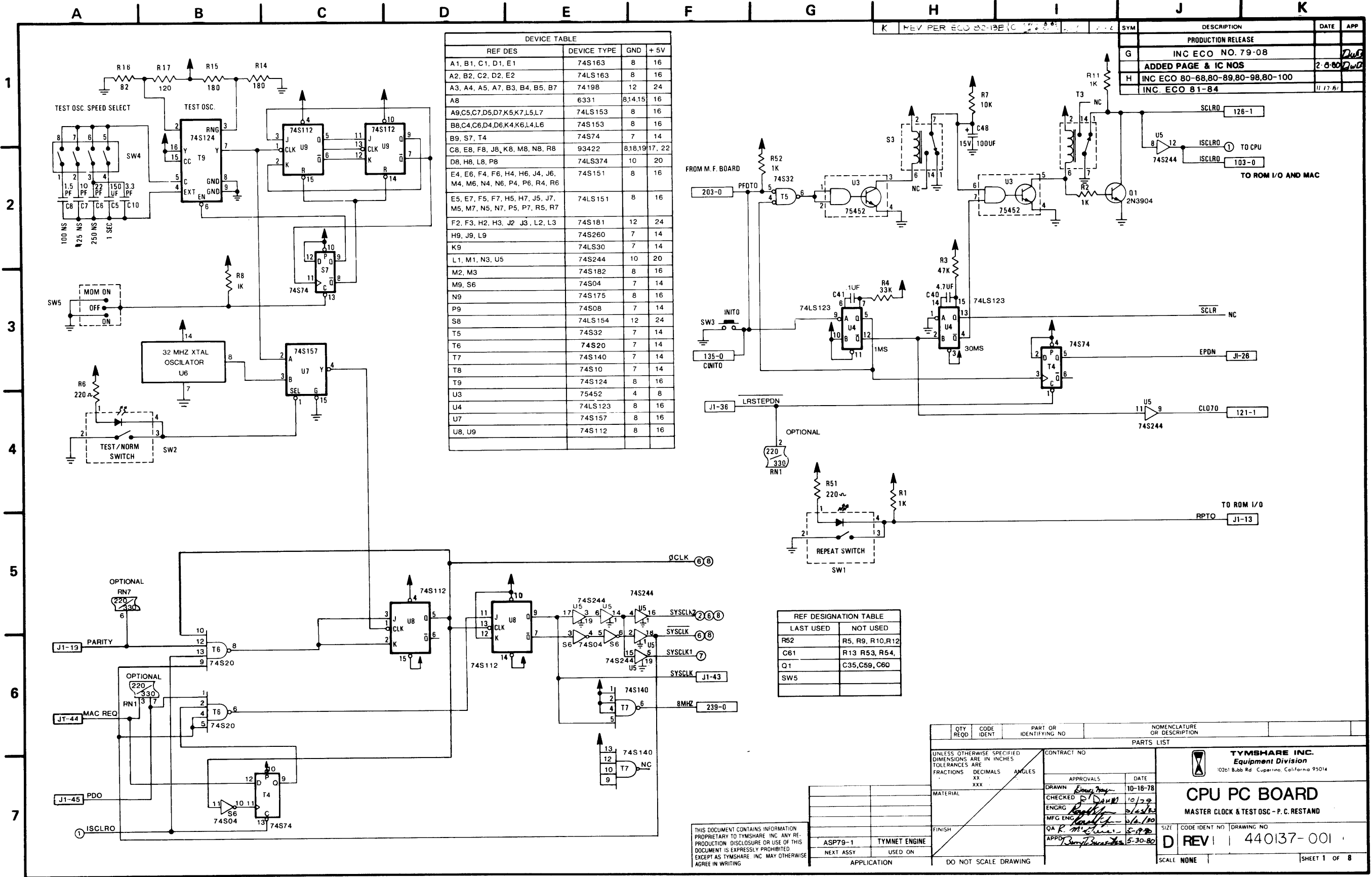
REVISIONS			
SYM	DESCRIPTION	DATE	APP
A	PRODUCTION RELEASE	5-23-80	
H	INC ECO 80-68,80-89,80-98,80-100		
J	REV PER ECO 81-116		



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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 XXX			
CONTRACT NO		APPROVALS	
		DRAWN DOUG HAYES	DATE 8-23-78
MATERIAL		CHECKED BY Hobb.com	DATE 11-80
FINISH		MFG ENG	DATE 1/21/80
ASP79-1/ASD TYMNET ENGINE		QA	DATE 1/21/80
NEXT ASSY USED ON		APPD	DATE 1/21/80
APPLICATION		DO NOT SCALE DRAWING	

TYMSHARE INC. Equipment Division 10261 Rabb Rd. Cupertino, California 95014	
TYMNET ENGINE CPU BLOCK DIAGRAM	
SIZE D	CODE IDENT NO REV J
DRAWING NO 490137-001	
SCALE	SHEET 1 OF 1



DEVICE TABLE				
REF DES	DEVICE TYPE	GND	+5V	
A1, B1, C1, D1, E1	74S163	8	16	
A2, B2, C2, D2, E2	74LS163	8	16	
A3, A4, A5, A7, B3, B4, B5, B7	74198	12	24	
A8	6331	8,14,15	16	
A9,C5,C7,D5,D7,K5,K7,L5,L7	74LS153	8	16	
B8,C4,C6,D4,D6,K4,K6,L4,L6	74S153	8	16	
B9, S7, T4	74S74	7	14	
C8, E8, F8, J8, K8, M8, N8, R8	93422	8,16,19	17, 22	
D8, H8, L8, P8	74LS374	10	20	
E4, E6, F4, F6, H4, H6, J4, J6, M4, M6, N4, N6, P4, P6, R4, R6	74S151	8	16	
E5, E7, F5, F7, H5, H7, J5, J7, M5, M7, N5, N7, P5, P7, R5, R7	74LS151	8	16	
F2, F3, H2, H3, J2, J3, L2, L3	74S181	12	24	
H9, J9, L9	74S260	7	14	
K9	74LS330	7	14	
L1, M1, N3, U5	74S244	10	20	
M2, M3	74S182	8	16	
M9, S6	74S04	7	14	
N9	74S175	8	16	
P9	74S08	7	14	
S8	74LS154	12	24	
T5	74S32	7	14	
T6	74S20	7	14	
T7	74S140	7	14	
T8	74S10	7	14	
T9	74S124	8	16	
U3	75452	4	8	
U4	74LS123	8	16	
U7	74S157	8	16	
U8, U9	74S112	8	16	

REF DESIGNATION TABLE	
LAST USED	NOT USED
R52	R5, R9, R10, R12
C61	R13, R53, R54
Q1	C35, C59, C60
SW5	

SYM	DESCRIPTION	DATE	APP
	PRODUCTION RELEASE		
G	INC ECO NO. 79-08		Dub
	ADDED PAGE & IC NOS	2-8-80	Dub
H	INC ECO 80-68,80-89,80-98,80-100		
	INC. ECO 81-84	11/17/81	

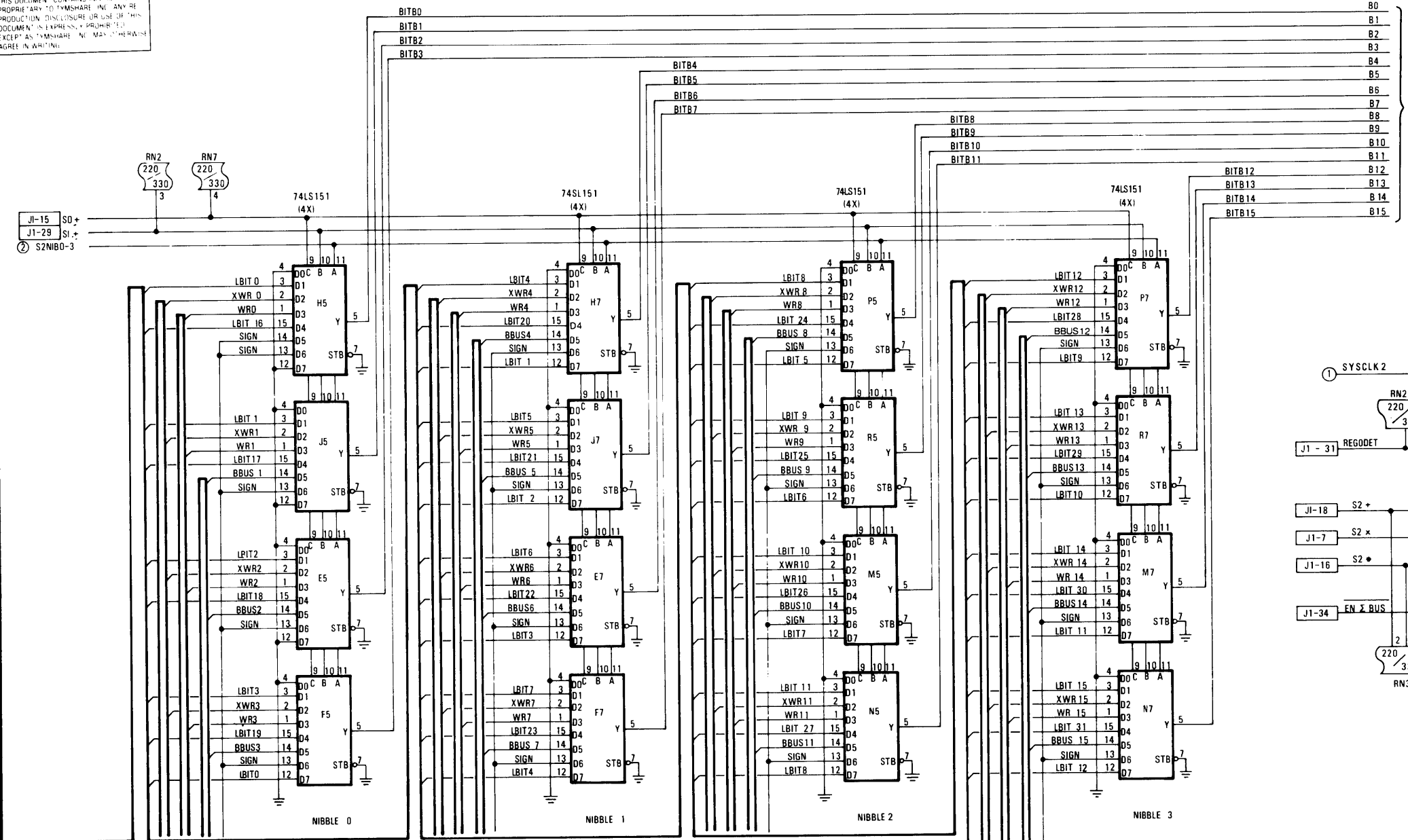
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PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX			
MATERIAL		CONTRACT NO	
FINISH		APPROVALS	
APPLICATION		DATE	
DO NOT SCALE DRAWING		DRAWN: [Signature] 10-18-78	
		CHECKED: [Signature] 10/29	
		ENGRG: [Signature] 5/25/80	
		MFG ENG: [Signature] 5/16/80	
		QA R. [Signature] 5-19-80	
		APPD: [Signature] 5-30-80	
ASP79-1 TYMNET ENGINE		SIZE CODE IDENT NO DRAWING NO	
NEXT ASSY USED ON		D REV! 440137-001	
SCALE NONE		SHEET 1 OF 8	

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REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE PAGE 1		

1
2
3
4
5
6
7



TO ALU B INPUTS PAGE 5

- B0
- B1
- B2
- B3
- B4
- B5
- B6
- B7
- B8
- B9
- B10
- B11
- B12
- B13
- B14
- B15

LATCHED OUTPUTS (32 LINES)

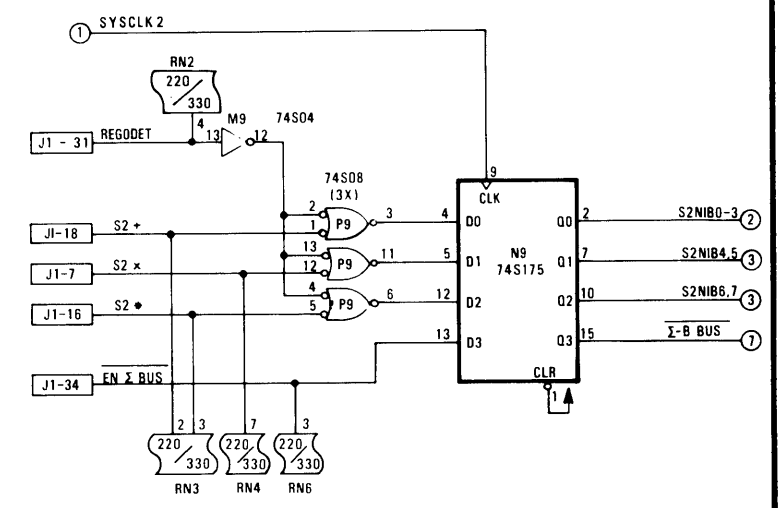
FROM REGISTER STACKS PAGE 8

OUTPUT FROM XWR BUS 0-15 (16 LINES)
PG 6

OUTPUT FROM WR BUS 0-15 (16 LINES)
PG 6

FROM B-BUS (16 LINES)
PG 7

B BUSQ 13 7 74S244

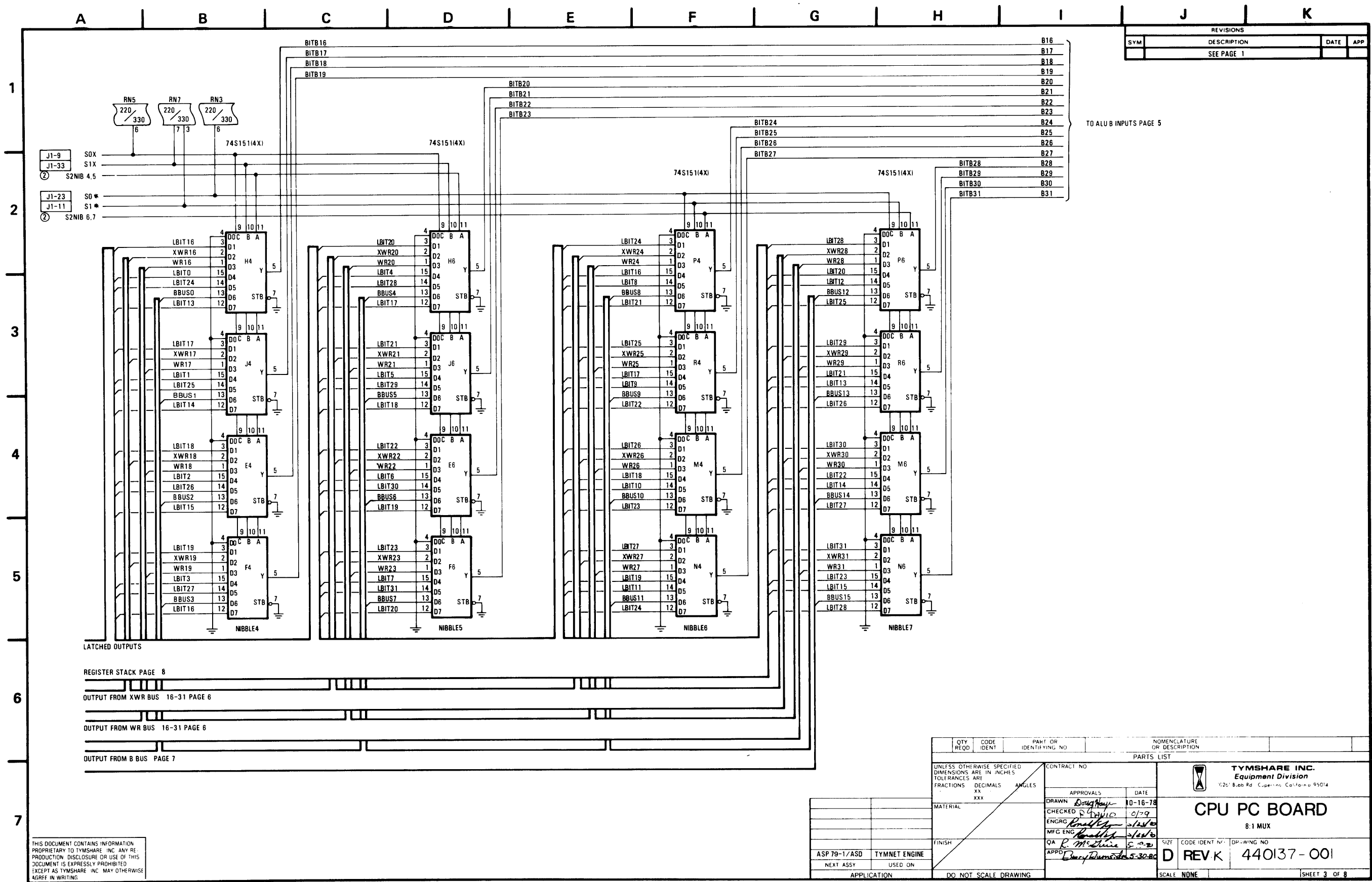


QTY	CODE	PART OR	NOMENCLATURE
REQD	IDENT	IDENTIFYING NO	OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES		CONTRACT NO	
MATERIAL		APPROVALS DATE	
FINISH		DRAWN [Signature] 10-16-78	
NEXT ASSY USED ON		CHECKED [Signature] 10/20/78	
APPLICATION		ENGRG [Signature] 10/20/78	
DO NOT SCALE DRAWING		MFG ENG [Signature] 10/20/78	
SCALE NONE		QA [Signature] 10/20/78	
SHEET 2 OF 8		APPD [Signature] 10/20/78	

TYMSHARE INC.
Equipment Division
1201 Blue Rd., Cupertino, California 95014

CPU PC BOARD
8:1 MUX

REV 440137-001



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE PAGE 1		

TO ALU B INPUTS PAGE 5

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QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE		CONTRACT NO	
FRACTIONS	DECIMALS	ANGLES	DATE
XX	XXX	XXX	10-16-78
MATERIAL		APPROVALS	DATE
		DRAWN <i>Doug Hay</i>	10-16-78
		CHECKED <i>R. D. H. 10</i>	01/79
		ENGRG <i>R. D. H. 10</i>	01/79
		MFG ENG <i>R. D. H. 10</i>	01/79
FINISH		QA <i>R. M. D. 10</i>	01/79
APPD <i>D. J. P. 10</i>		5-30-80	
ASP 79-1/ASD	TYMNET ENGINE	SIZE	CODE IDENT N°
NEXT ASSY	USED ON	D	REV K
APPLICATION	DO NOT SCALE DRAWING	DP-WING NO	440137-001
		SCALE	NONE
		SHEET 3 OF 8	

TYMSHARE INC.
Equipment Division
1201 Blue Rd. Cupertino, California 95014

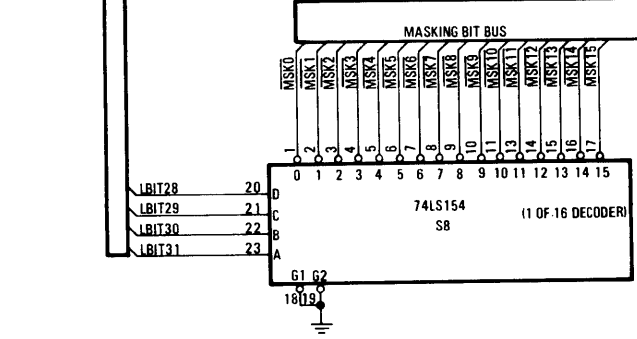
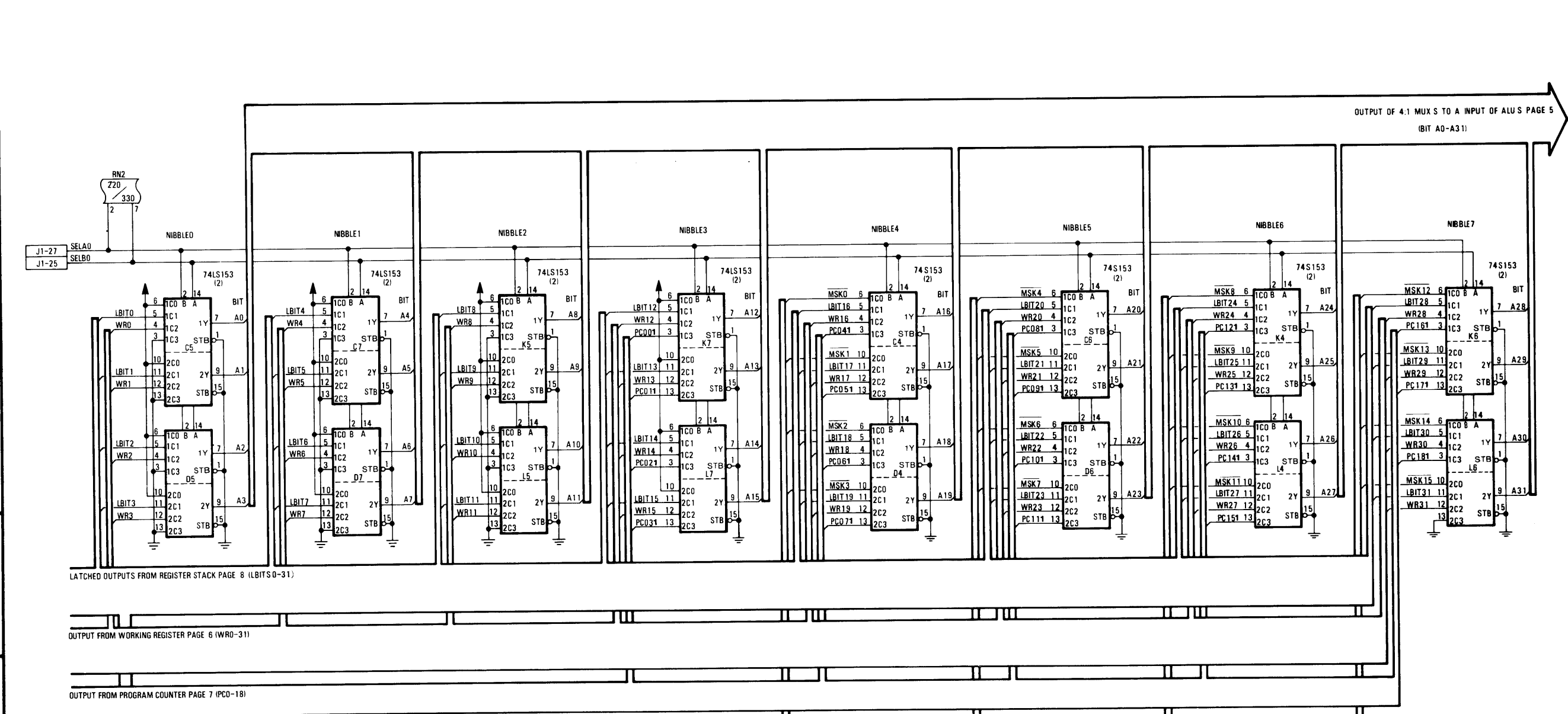
CPU PC BOARD
8:1 MUX

SIZE CODE IDENT N° DP-WING NO
D REV K 440137-001

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REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE PAGE 1		

1
2
3
4
5
6
7



OUTPUT OF 4:1 MUX S TO A INPUT OF ALUS PAGE 5
(BIT A0-A31)

LATCHED OUTPUTS FROM REGISTER STACK PAGE 8 (LBITS 0-31)
OUTPUT FROM WORKING REGISTER PAGE 6 (WR0-31)
OUTPUT FROM PROGRAM COUNTER PAGE 7 (PC0-18)

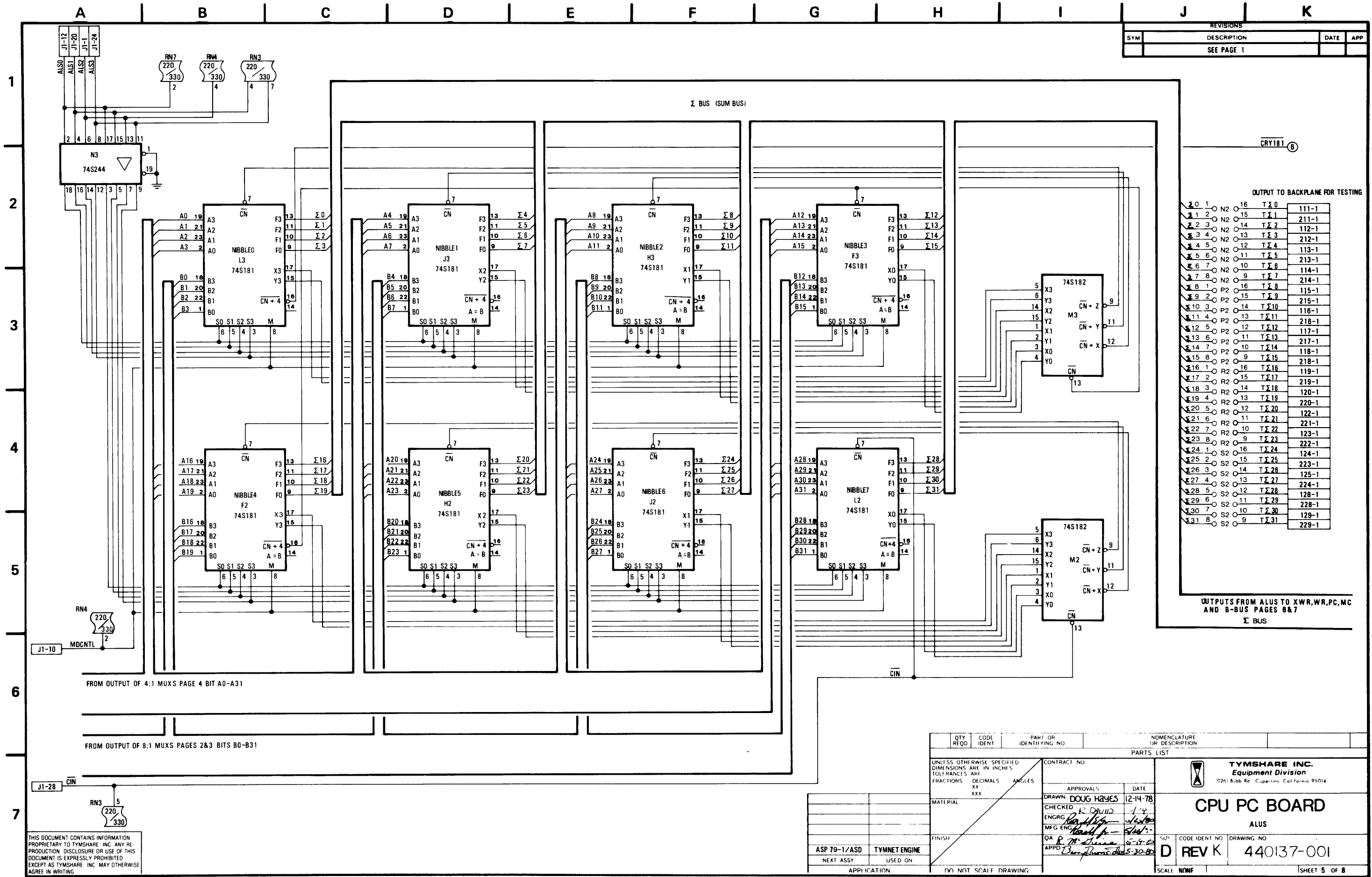
QTY	CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
REQD	IDENT		
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES		CONTRACT NO	
MATERIAL		APPROVALS DATE	
FINISH		DRAWN <i>Kevin Mann</i> 10-16-78	
NEXT ASSY		CHECKED <i>R. David</i> 10/29	
APPLICATION		ENGRG <i>Kevin Mann</i> 5/20/80	
TYMNET ENGINE		MFG ENG <i>Kevin Mann</i> 5/20/80	
USED ON		QA <i>P. McQuinn</i> 5-19-80	
DO NOT SCALE DRAWING		APPD <i>Benny Burrows</i> 5-30-80	
SCALE NONE		SIZE CODE IDENT DRAWING NO	
SHEET 4 OF 8		D REV K 440137-001	

TYMSHARE INC. Equipment Division
10201 Burb Rd. Cupertino California 95014

CPU PC BOARD

4:1MUX

D REV K 440137-001



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE PAGE 1		

CRY181

OUTPUT TO BACKPLANE FOR TESTING

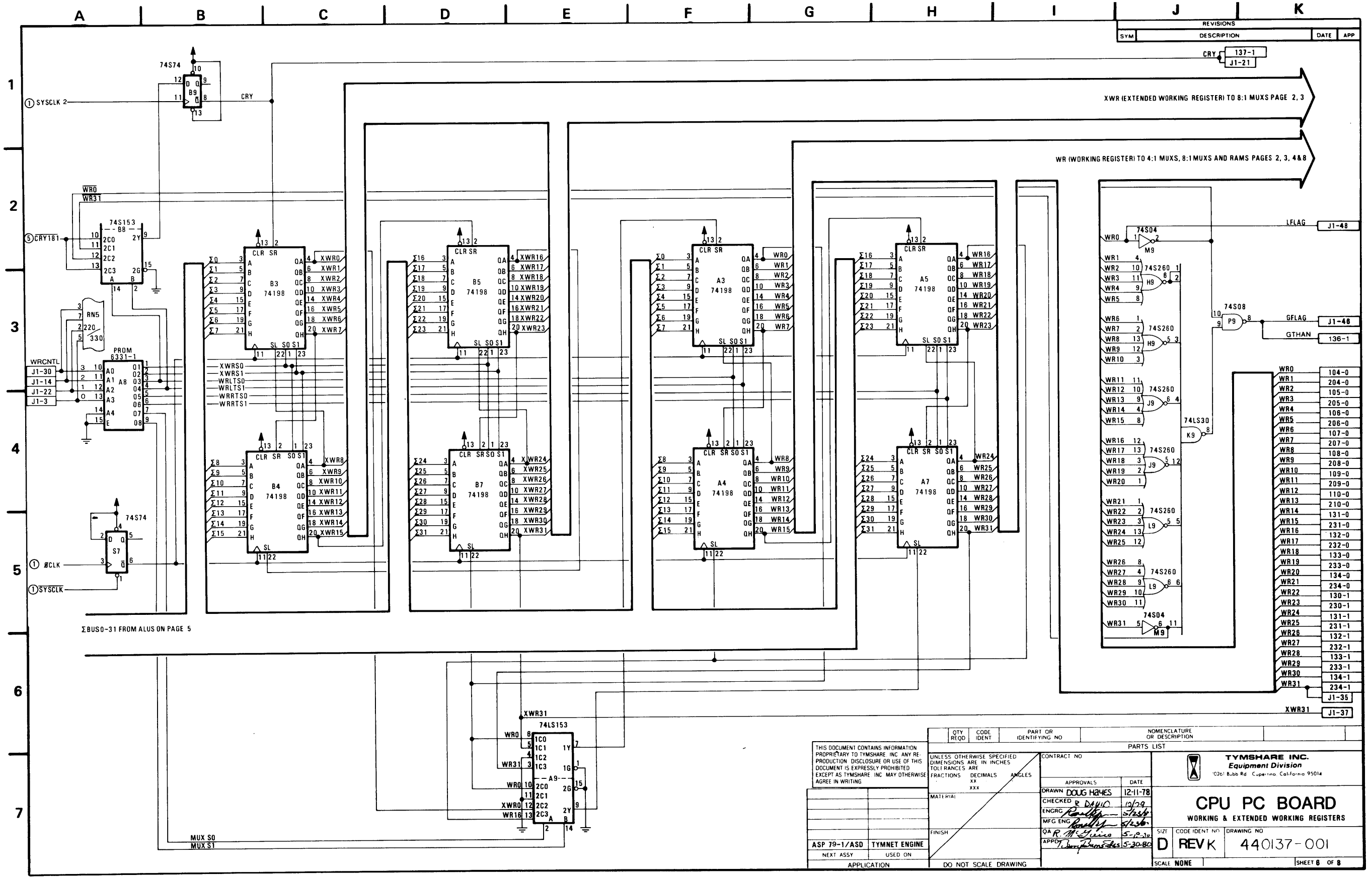
Σ0 1	N2	16	TΣ0	111-1
Σ1 2	N2	15	TΣ1	211-1
Σ2 3	N2	14	TΣ2	112-1
Σ3 4	N2	13	TΣ3	212-1
Σ4 5	N2	12	TΣ4	113-1
Σ5 6	N2	11	TΣ5	213-1
Σ6 7	N2	10	TΣ6	114-1
Σ7 8	N2	9	TΣ7	214-1
Σ8 1	P2	16	TΣ8	115-1
Σ9 2	P2	15	TΣ9	215-1
Σ10 3	P2	14	TΣ10	116-1
Σ11 4	P2	13	TΣ11	216-1
Σ12 5	P2	12	TΣ12	117-1
Σ13 6	P2	11	TΣ13	217-1
Σ14 7	P2	10	TΣ14	118-1
Σ15 8	P2	9	TΣ15	218-1
Σ16 1	R2	16	TΣ16	119-1
Σ17 2	R2	15	TΣ17	219-1
Σ18 3	R2	14	TΣ18	120-1
Σ19 4	R2	13	TΣ19	220-1
Σ20 5	R2	12	TΣ20	121-1
Σ21 6	R2	11	TΣ21	221-1
Σ22 7	R2	10	TΣ22	122-1
Σ23 8	R2	9	TΣ23	222-1
Σ24 1	S2	16	TΣ24	124-1
Σ25 2	S2	15	TΣ25	223-1
Σ26 3	S2	14	TΣ26	125-1
Σ27 4	S2	13	TΣ27	224-1
Σ28 5	S2	12	TΣ28	128-1
Σ29 6	S2	11	TΣ29	228-1
Σ30 7	S2	10	TΣ30	129-1
Σ31 8	S2	9	TΣ31	229-1

OUTPUTS FROM ALUS TO XWR,WR,PC,MC AND B-BUS PAGES 6&7

Σ BUS

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 XXX		CONTRACT NO	
MATERIAL		APPROVALS	DATE
FINISH		DRAWN DOUG HAYES	12-14-78
NEXT ASSY USED ON		CHECKED R. DAVIS	1/8
APPLICATION		ENGRG R. HAYES	
DO NOT SCALE DRAWING		MFG ENG R. HAYES	
		QA R. HAYES	
		APPD R. HAYES	
		TYMSHARE INC. Equipment Division 10261 Burb Rd. Cupertino California 95014	
		CPU PC BOARD	
		ALUS	
		CODE IDENT NO	DRAWING NO
		D REV K	440137-001
		SCALE NMMF	SHEET 5 OF 8

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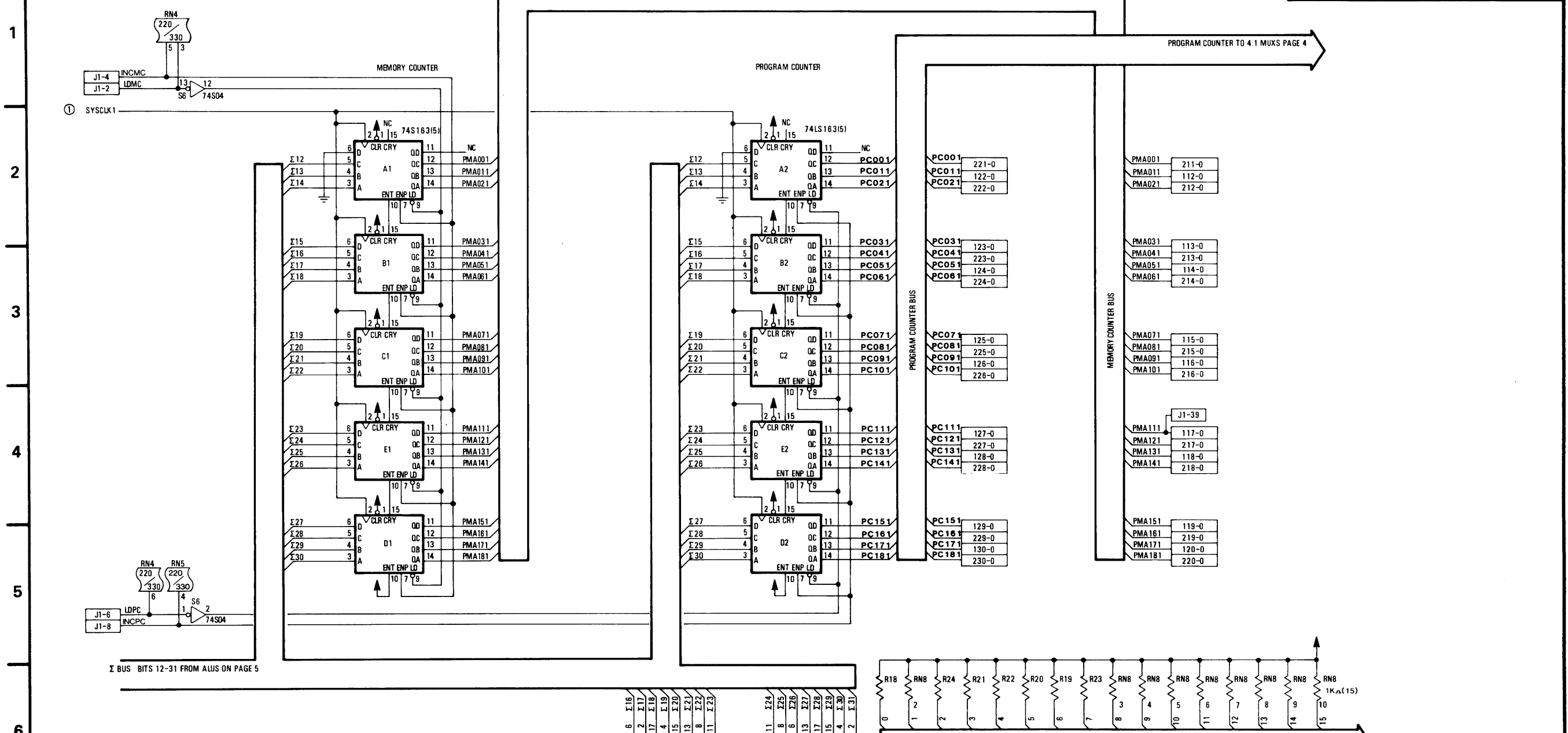
REVISIONS			
SYM	DESCRIPTION	DATE	APP
CRY	137-1 J1-21		

XWR (EXTENDED WORKING REGISTER) TO 8:1 MUXS PAGE 2, 3

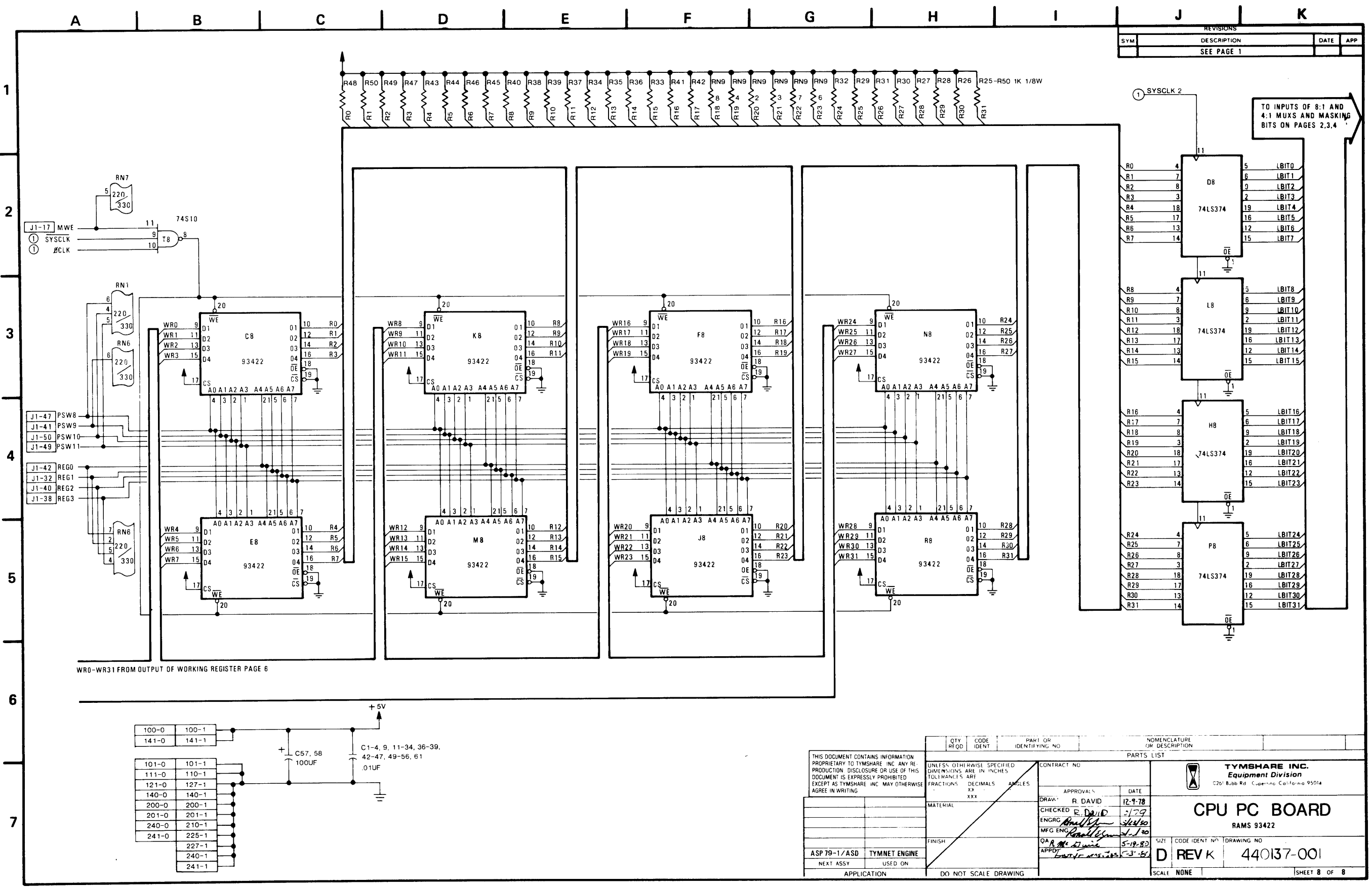
WR (WORKING REGISTER) TO 4:1 MUXS, 8:1 MUXS AND RAMS PAGES 2, 3, 4 & 8

ΣBUS0-31 FROM ALUS ON PAGE 5

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ASP 79-1/ASD TYMNET ENGINE		FINISH		APPROVALS DATE DRAWN DOUG HAYES 12-11-78 CHECKED R. DAVIS 12/29 ENGRG R. DAVIS 1/2/79 MFG ENG R. DAVIS 5/1/79 QA R. M. [Signature] 5-12-79 APP'D [Signature] 5-20-80	
NEXT ASSY USED ON		APPLICATION DO NOT SCALE DRAWING		NOMENCLATURE OR DESCRIPTION TYMSHARE INC. Equipment Division 1201 Bubb Rd. Cupertino, California 95014	
PARTS LIST		SIZE CODE IDENT NO DRAWING NO D REV K 440137-001		SCALE NONE SHEET 8 OF 8	



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	CONTRACT NO.		APPROVALS:		DATE: 12-11-78
	DRAWN: DOUG HAYES		CHECKED: R. D. WILCOX		DATE: 9-7-79
	ENGRG: [Signature]		MFG ENG: [Signature]		DATE: 5-14-80
PARTS LIST			NOMENCLATURE OR DESCRIPTION		
QTY REQD			PART OR IDENTIFYING NO		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS XX DECIMALS ANGLES XXX			TYMSHARE INC. Equipment Division 2501 Babb Rd. Cupertino, California 95014		
CPU PC BOARD			MEMORY & PROGRAM COUNTERS, B-BUSS INTERFACE		
SIZE: CODE IDENT: DRAWING NO:			D REV K 440137-001		
SCALE: NONE			SHEET 7 OF 8		



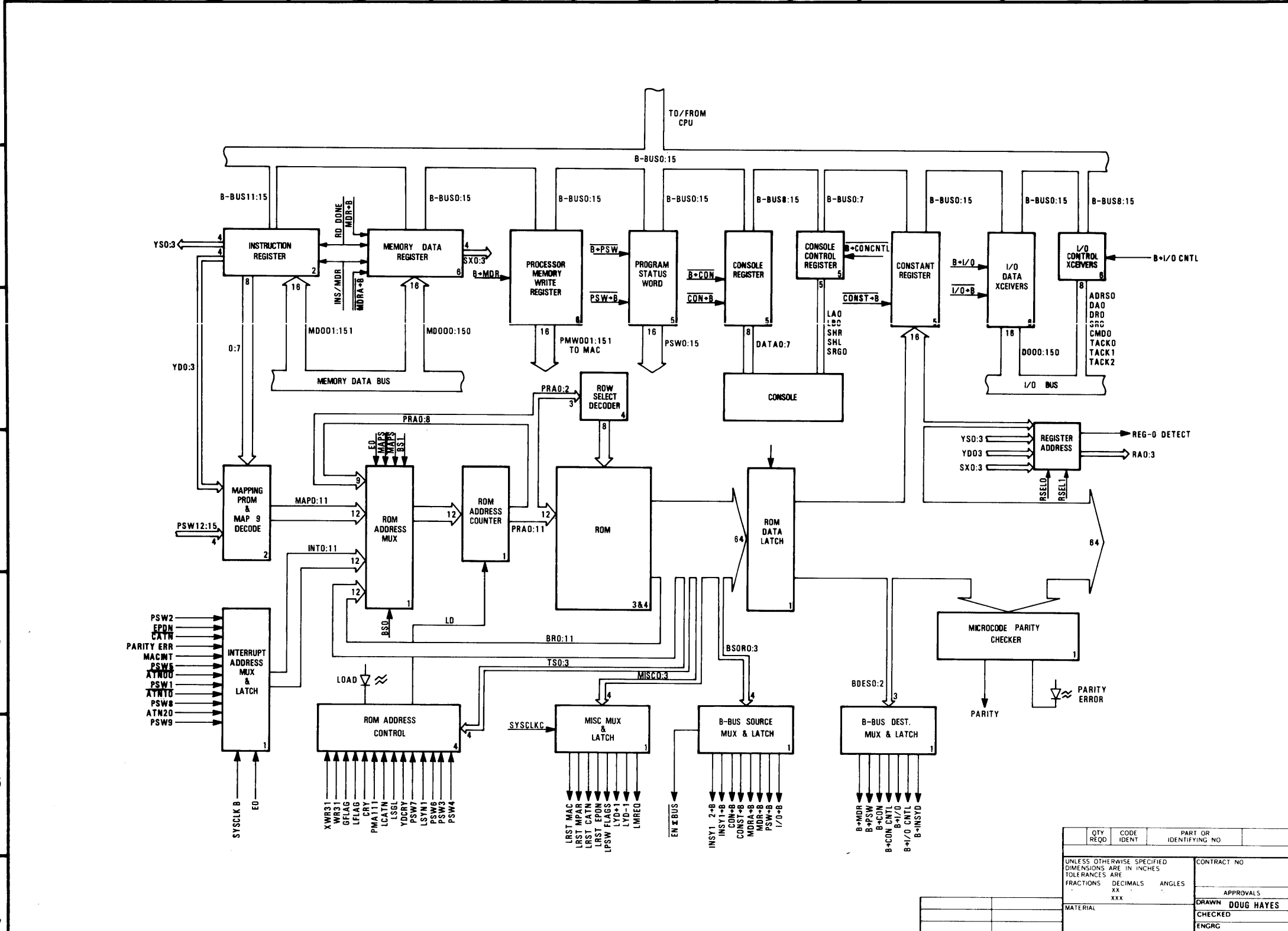
REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE PAGE 1		

TO INPUTS OF 8:1 AND 4:1 MUXS AND MASKING BITS ON PAGES 2,3,4

WR0-WR31 FROM OUTPUT OF WORKING REGISTER PAGE 6

THIS DOCUMENT CONTAINS INFORMATION PROPRIETARY TO TYMSHARE INC. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DOCUMENT IS EXPRESSLY PROHIBITED EXCEPT AS TYMSHARE INC. MAY OTHERWISE AGREE IN WRITING.		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES xxx .xxx .xxx		CONTRACT NO.	
ASP 79-1/ASD TYMNET ENGINE		APPROVALS: R. DAVID 12-9-78 CHECKED: R. DAVID 1-7-79 ENGRG: [Signature] 1/14/80 MFG ENG: [Signature] 1-1-80 QA: [Signature] 5-18-80 APPD: [Signature] 5-3-80		TYMSHARE INC. Equipment Division 2261 Babb Rd. Cupertino California 95014	
APPLICATION: DO NOT SCALE DRAWING		PARTS LIST		CPU PC BOARD RAMS 93422	
SCALE: NONE		SIZE: D		CODE IDENT NO: 440137-001 DRAWING NO:	
SHEET 8 OF 8					

REVISIONS			
SYM	DESCRIPTION	DATE	APP
1	PRODUCTION RELEASE		
B	REV PER ECO 81-116		



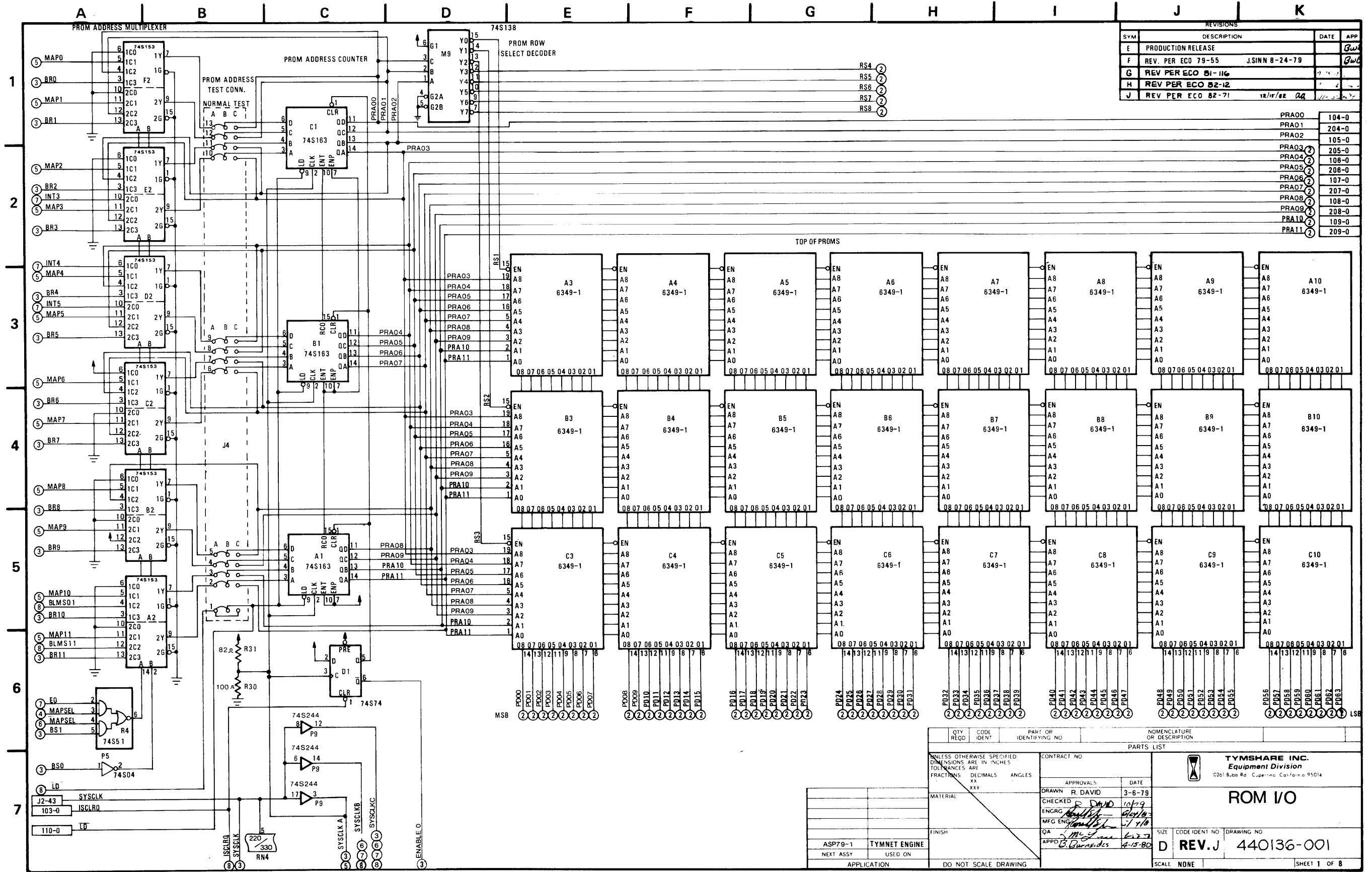
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QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX		CONTRACT NO.	
MATERIAL		APPROVALS	DATE
FINISH		CHECKED DOUG HAYES	10-78
NEXT ASSY USED ON		ENGRG	
APPLICATION		MFG ENG	
DO NOT SCALE DRAWING		QA APPD	1-8-80
SCALE	CODE IDENT NO	DRAWING NO	
NONE	D	REV. B	490136-001
SHEET 1 OF 1			

TYMSHARE INC.
Equipment Division
10261 Burb Rd. Cupertino, California 95014

ROM & I/O BLOCK DIAGRAM

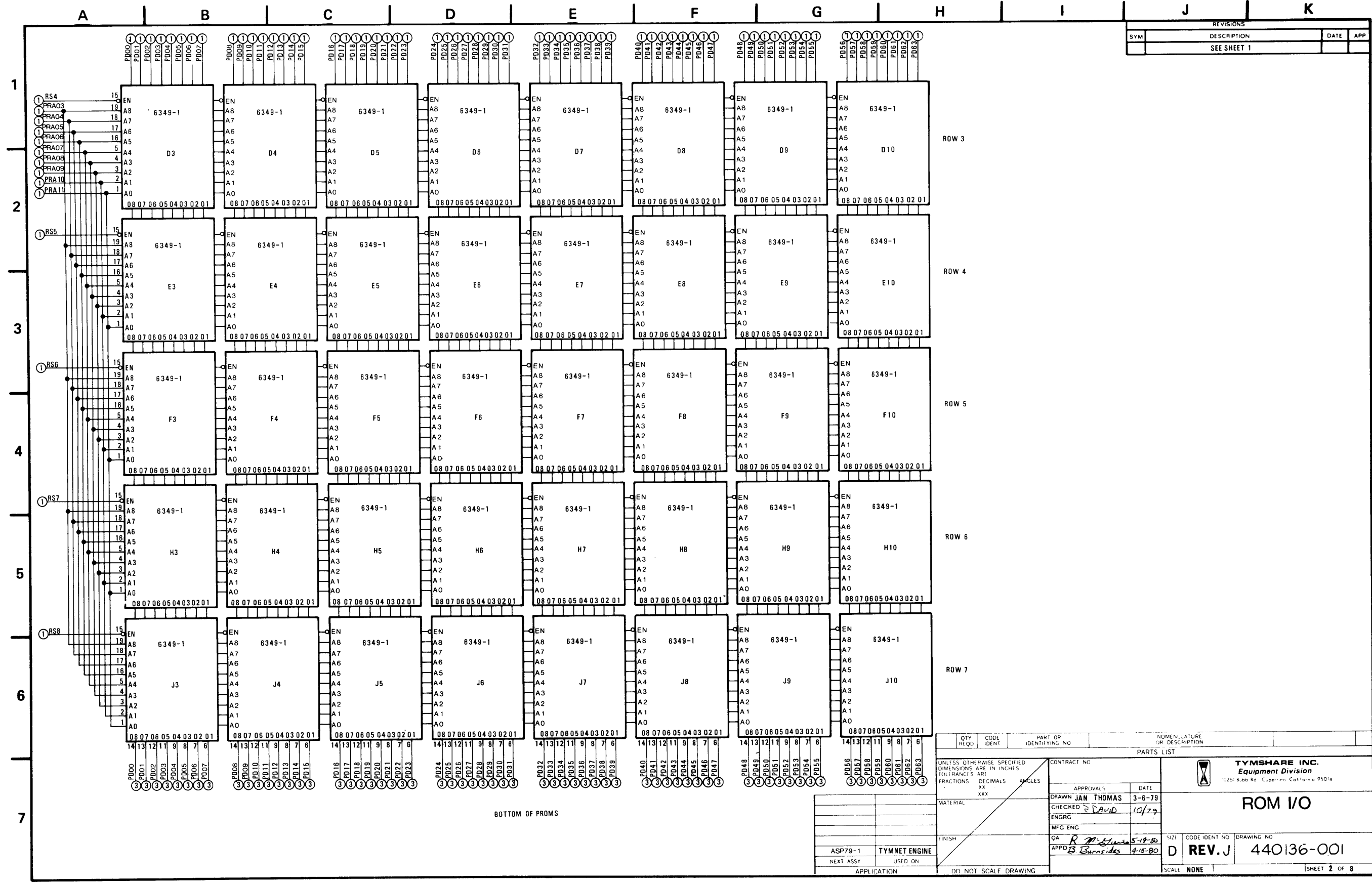
ASP 78-1/ASD TYMNET ENGINE



REVISIONS			
SYM	DESCRIPTION	DATE	APP
E	PRODUCTION RELEASE		Gwb
F	REV PER ECO 79-55	J.SINN 8-24-79	Gwb
G	REV PER ECO 81-116		
H	REV PER ECO 82-12		
J	REV PER ECO 82-71	12/16/82	Aq

PRA00	104-0
PRA01	204-0
PRA02	105-0
PRA03	205-0
PRA04	106-0
PRA05	206-0
PRA06	107-0
PRA07	207-0
PRA08	108-0
PRA09	208-0
PRA10	109-0
PRA11	209-0

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		CONTRACT NO	
MATERIAL		APPROVALS DATE	
FINISH		DRAWN R. DAVID 3-6-79	
NEXT ASSY USED ON		CHECKED <i>[Signature]</i> 10/29	
APPLICATION		ENGRG <i>[Signature]</i> 10/16	
DO NOT SCALE DRAWING		MFG ENG <i>[Signature]</i> 1/10	
		QA <i>[Signature]</i> 2-15-80	
		APPROV <i>[Signature]</i> 2-15-80	
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		SIZE CODE IDENT NO DRAWING NO D REV. J 440136-001	
		SCALE NONE SHEET 1 OF 8	



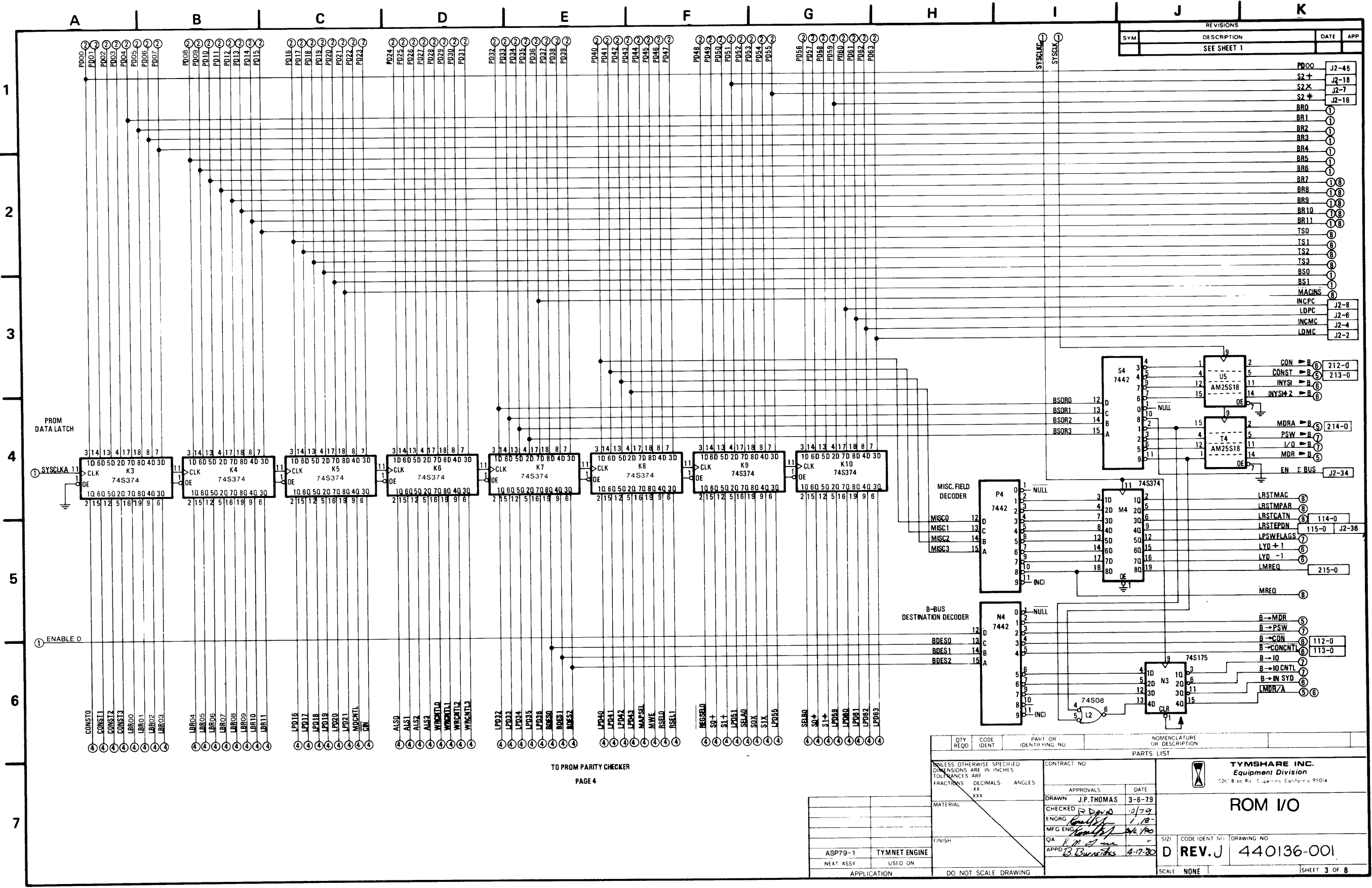
REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

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		APPROVAL'S DATE	
DRAWN JAN THOMAS 3-6-79		CHECKED DAVID 10/79	
ENGRG		MFG ENG	
QA R. M. ... 5-19-80		APPD B. Burnside 4-15-80	
MATERIAL		FINISH	
ASP79-1 TYMNET ENGINE		NEXT ASSY USED ON	
APPLICATION		DO NOT SCALE DRAWING	
SCALE NONE		SHEET 2 OF 8	

TYMSHARE INC.
Equipment Division
1201 Babb Rd. Cupertino, California 95014

ROM I/O

REV. J 440136-001



REVISIONS		
SYM	DESCRIPTION	DATE
	SEE SHEET 1	

PROO	J2-45
S2+	J2-18
S2X	J2-7
S2*	J2-18
BR0	1
BR1	1
BR2	1
BR3	1
BR4	1
BR5	1
BR6	1
BR7	1
BR8	1
BR9	1
BR10	1
BR11	1
TS0	1
TS1	1
TS2	1
TS3	1
BS0	1
BS1	1
MACINS	1
INCPC	J2-8
LDPC	J2-6
INCMC	J2-4
LQMC	J2-2

PROM DATA LATCH

ENABLE 0

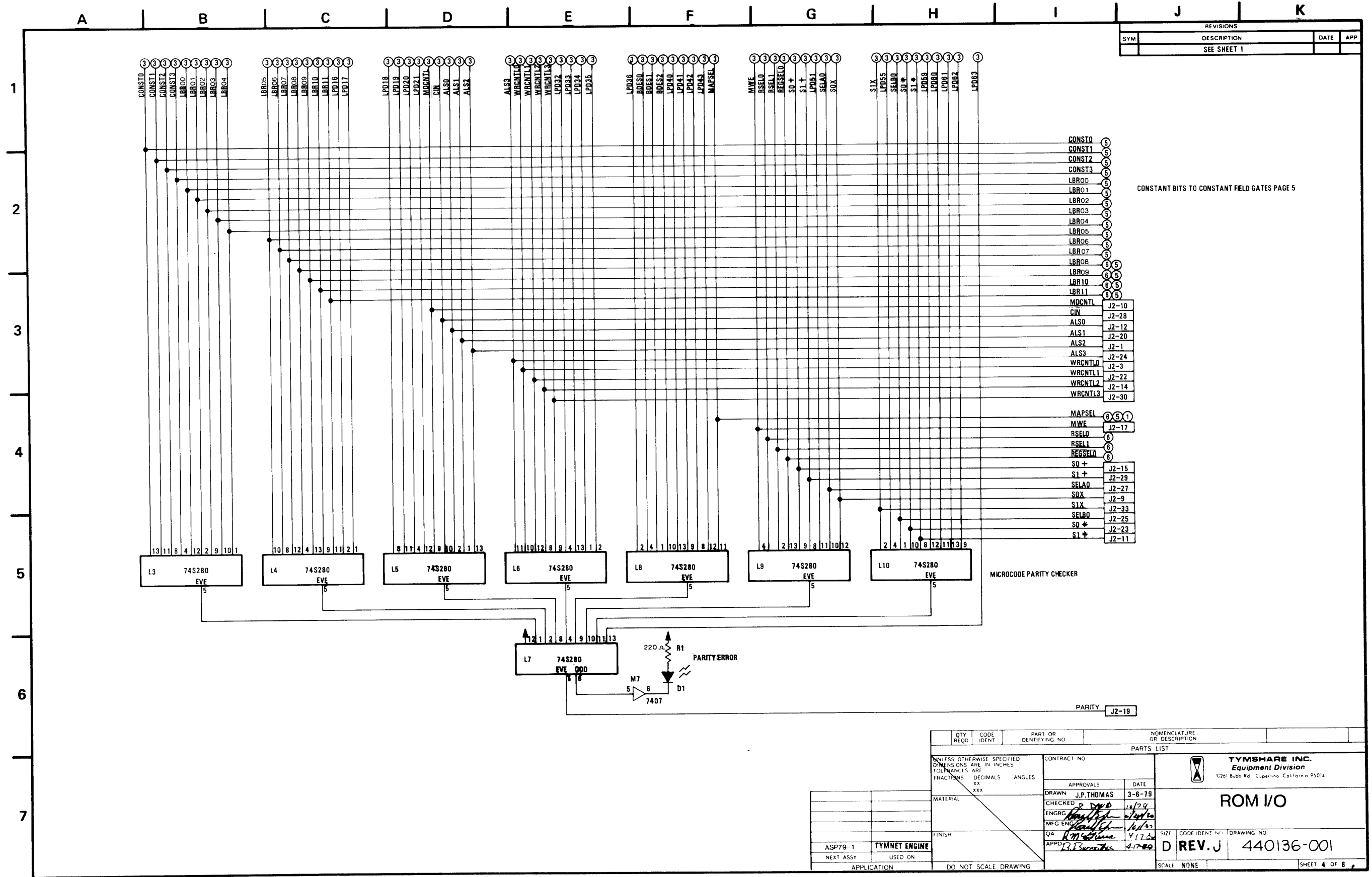
TO PROM PARITY CHECKER
PAGE 4

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
			CONTRACT NO
			APPROVALS
			DATE
			DRAWN J.P. THOMAS 3-6-79
			CHECKED R. David 10/79
			ENGRG
			MFG ENG
			QA
			APPD B. B. ... 4-17-80
ASPT9-1 TYMNET ENGINE		SIZE	CODE IDENT NO
NEXT ASSY USED ON		DRAWING NO	
APPLICATION		DO NOT SCALE DRAWING	
		SCALE	NONE
		SHEET 3 OF 8	

TYMSHARE INC.
Equipment Division
7200 B. Rd. Cupertino, California 95014

ROM I/O

D REV. J 440136-001



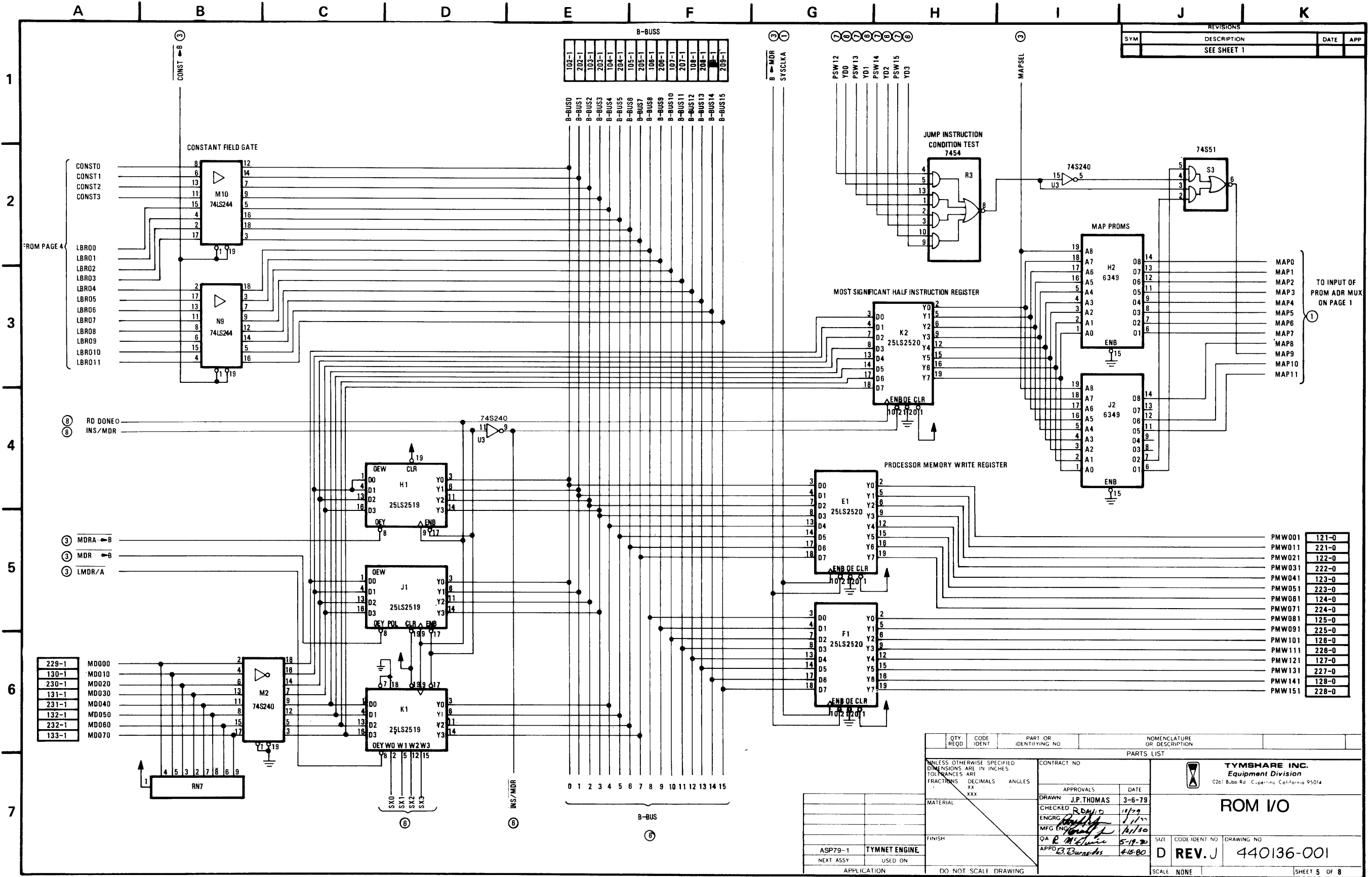
REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

CONSTANT BITS TO CONSTANT FIELD GATES PAGE 5

MICROCODE PARITY CHECKER

PARITY J2-19

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 xxx		CONTRACT NO	
MATERIAL		APPROVALS	DATE
FINISH		DRAWN J.P. THOMAS	3-6-79
NEXT ASSY		CHECKED	11/79
APPLICATION		ENGR	1/24/80
DO NOT SCALE DRAWING		MFG ENGR	1/17/80
		QA	4/17/80
		APPROV	4/17/80
		TYMSHARE INC. Equipment Division 1201 Burb Rd Cupertino California 95014	
		ROM I/O	
		SIZE	CODE IDENT NO
		D	REV. J 440136-001
		SCALE	NONE
		SHEET 4 OF 8	



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

FROM PAGE 4

LBR00
LBR01
LBR02
LBR03
LBR04
LBR05
LBR06
LBR07
LBR08
LBR09
LBR10
LBR11

RD DONE
INS/MDR

MDRA → B
MDR → B
LMDR/A

229-1	MD000
130-1	MD010
230-1	MD020
131-1	MD030
231-1	MD040
132-1	MD050
232-1	MD060
133-1	MD070

MAP0
MAP1
MAP2
MAP3
MAP4
MAP5
MAP6
MAP7
MAP8
MAP9
MAP10
MAP11

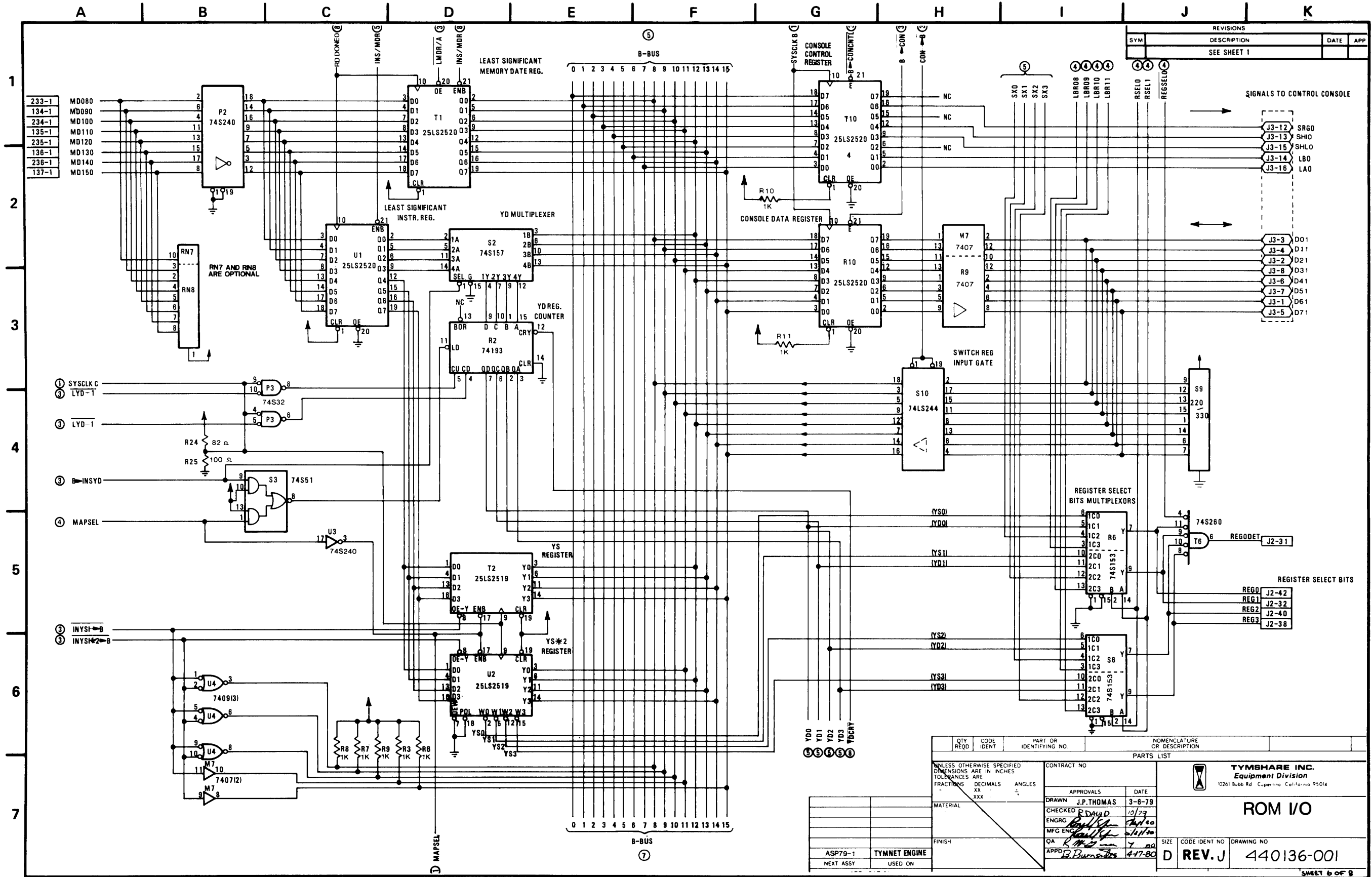
TO INPUT OF PROM ADR MUX ON PAGE 1

PMW001	121-0
PMW011	221-0
PMW021	122-0
PMW031	222-0
PMW041	123-0
PMW051	223-0
PMW061	124-0
PMW071	224-0
PMW081	125-0
PMW091	225-0
PMW101	126-0
PMW111	226-0
PMW121	127-0
PMW131	227-0
PMW141	128-0
PMW151	228-0

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			
MATERIAL		CONTRACT NO	APPROVALS DATE
FINISH		DRAWN J.P. THOMAS 3-6-79	CHECKED R. DAVIS 11/79
NEXT ASSY USED ON		ENGRG R. DAVIS 11/79	MFG ENGRG R. DAVIS 11/80
APPLICATION		QA R. McNamee 5-19-80	APPD B. Burdick 4-18-80
DO NOT SCALE DRAWING		SIZE	CODE IDENT NO DRAWING NO
		D	REV. J 440136-001
		SCALE NONE	SHEET 5 OF 8

TYMSHARE INC.
Equipment Division
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ROM I/O



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

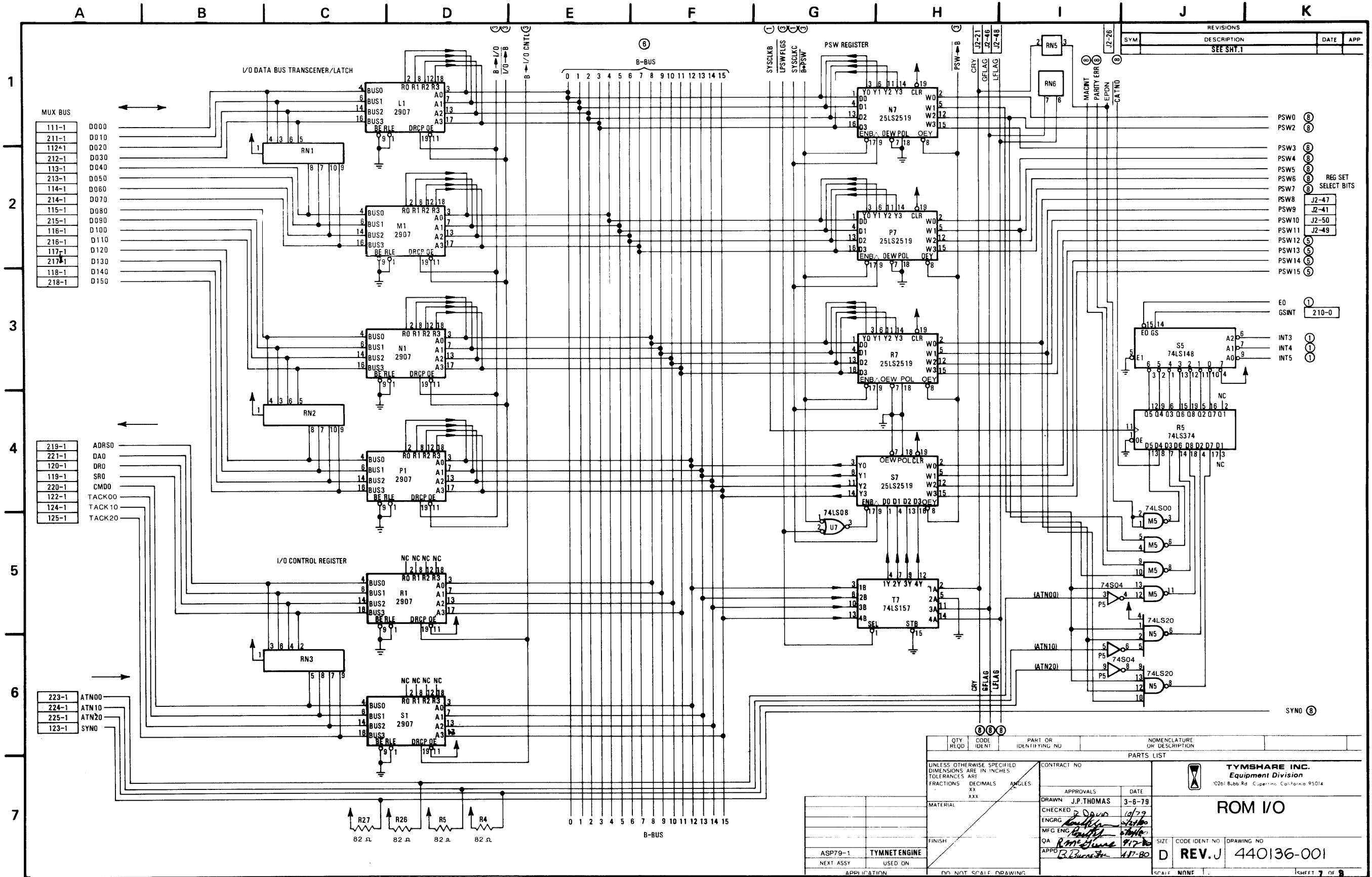
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			CHECKED R. DAYD 10/29
			ENGRG [Signature] 11/10
			MFG ENGR [Signature] 11/10
			QA [Signature] 11/10
			APPD B. Buerger 4-17-80
MATERIAL		PARTS LIST	
FINISH		TYMNET ENGINE	
ASP79-1		D REV. J	
NEXT ASSY USED ON		DRAWING NO 440136-001	

ROM I/O

TYMSHARE INC.
Equipment Division
10261 Burbank Rd. Cupertino, California 95014

SIZE CODE IDENT NO DRAWING NO
D REV. J 440136-001

SHEET 6 OF 8



MUX BUS

111-1	D000
211-1	D010
112+1	D020
212-1	D030
113-1	D040
213-1	D050
114-1	D060
214-1	D070
115-1	D080
215-1	D090
116-1	D100
216-1	D110
117-1	D120
217-1	D130
118-1	D140
218-1	D150

219-1	ADRS0
221-1	DA0
120-1	DR0
119-1	SRO
220-1	CMDO
122-1	TACK00
124-1	TACK10
125-1	TACK20

223-1	ATN00
224-1	ATN10
225-1	ATN20
123-1	SYNO

REVISIONS			
SYM	DESCRIPTION	DATE	APP
SEE SHY.1			

- PSW0 (8)
- PSW2 (8)
- PSW3 (8)
- PSW4 (8)
- PSW5 (8)
- PSW6 (8)
- PSW7 (8)
- PSW8 (8)
- PSW9 (8)
- PSW10 (8)
- PSW11 (8)
- PSW12 (8)
- PSW13 (8)
- PSW14 (8)
- PSW15 (8)

- E0 (1)
- GSINT (210-0)
- INT3 (1)
- INT4 (1)
- INT5 (1)

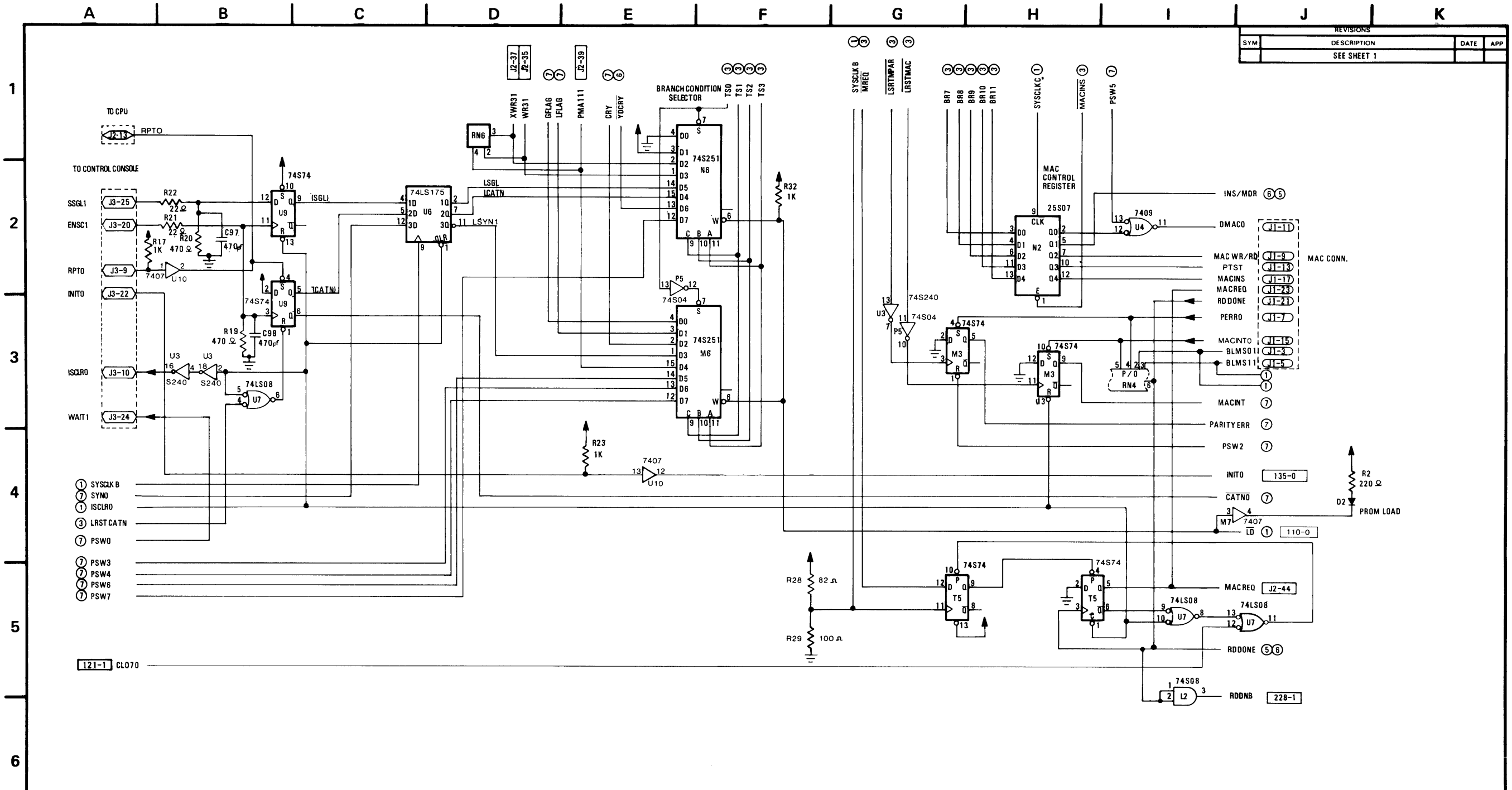
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QTY REQD		CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX				
MATERIAL		APPROVALS		DATE
FINISH		DRAWN J.P. THOMAS		3-8-79
APPLICATION		CHECKED		
NEXT ASSY USED ON		ENGRG		
DO NOT SCALE DRAWING		MFG ENG		
		QA		
		APPR		
		SCALE		
		SIZE		
		CODE IDENT NO		
		DRAWING NO		
		REV. J		440136-001
		SCALE		
		SHEET		7 OF 8

TYMSHARE INC.
Equipment Division
10201 Burbank Rd. Cupertino, California 95014

ROM I/O

REV. J 440136-001



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

- ① SYSCLK B
- ② SYNO
- ③ ISCLRO
- ④ LRSTCATN
- ⑤ PSW0
- ⑥ PSW3
- ⑦ PSW4
- ⑧ PSW6
- ⑨ PSW7

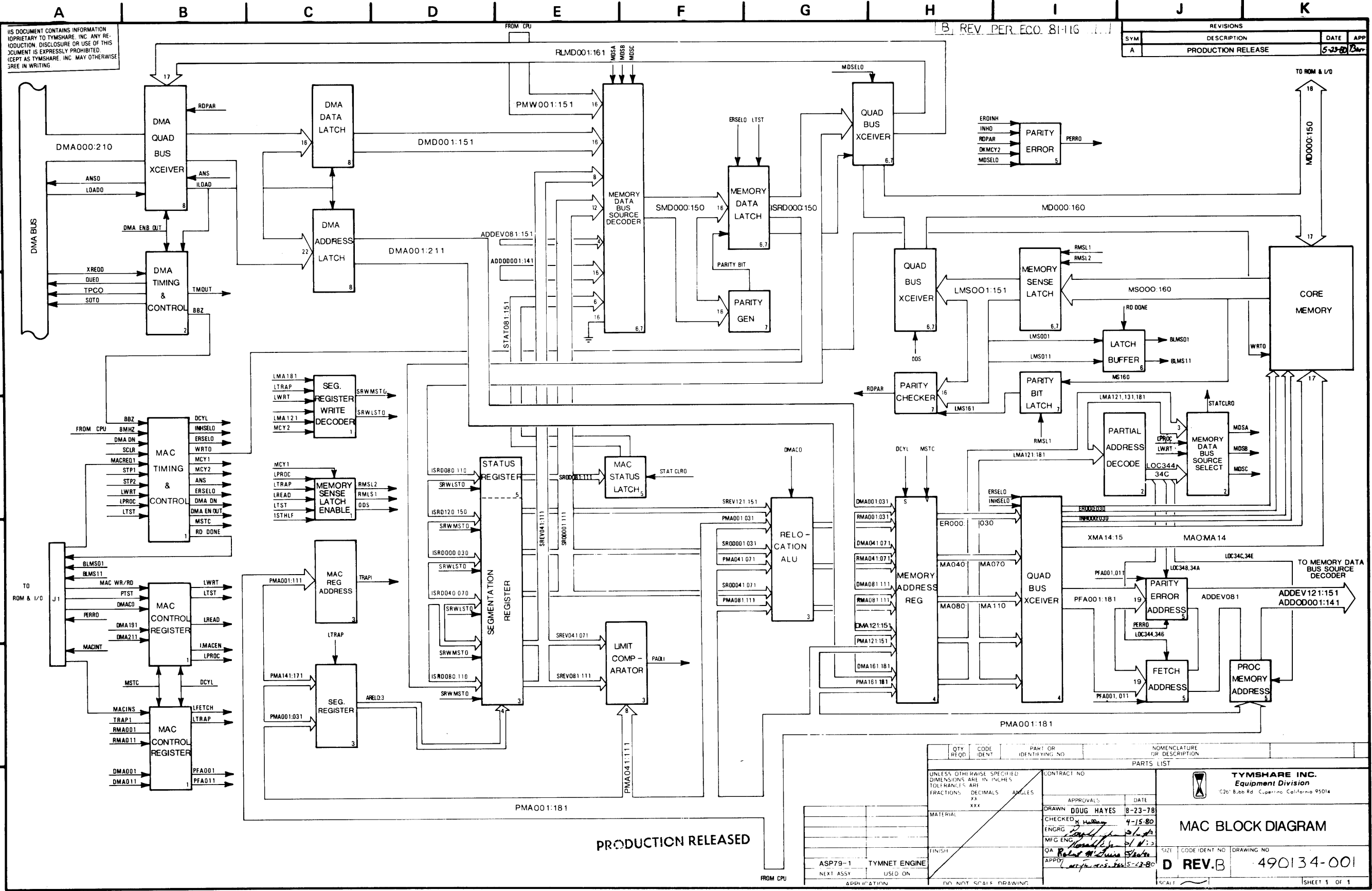
121-1 CL070

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 XXX		CONTRACT NO	
MATERIAL		APPROVALS DATE	
FINISH		DRAWN J.P. THOMAS 3-6-79	
NEXT ASSY USED ON		CHECKED E. DAVIS	
APPLICATION		ENGRG [Signature]	
DO NOT SCALE DRAWING		MFG ENG [Signature]	
		QA [Signature]	
		APPROV [Signature]	
		DATE 4-15-80	
		SIZE CODE IDENT NO DRAWING NO	
		D REV. J 440136-001	
		SHEET 3 OF 8	

TYMSHARE INC.
Equipment Division
10261 Burbank Rd., Cupertino, California 95014

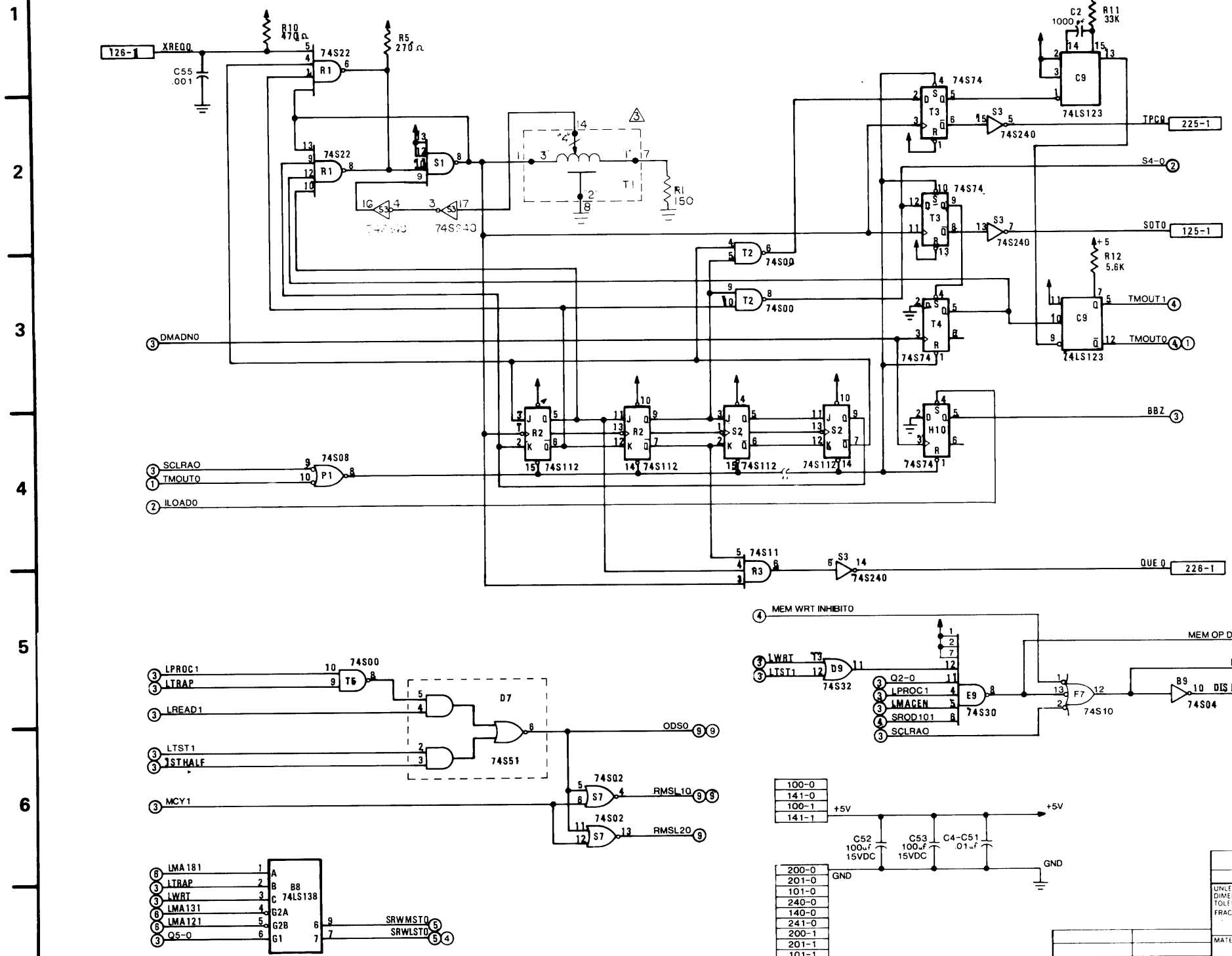
ROM I/O

SIZE CODE IDENT NO DRAWING NO
D REV. J 440136-001



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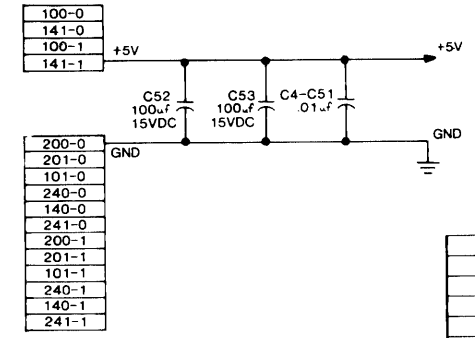
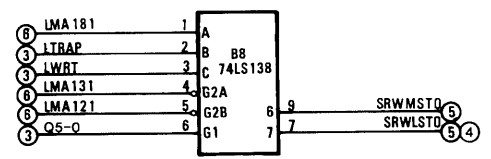
REVISIONS			
SYM	DESCRIPTION	DATE	APP
PRODUCTION RELEASED			
	REV. PER ECO 79-53 J. SINN 8-24-79	5-23-80	JST
F	REV. PER ECO # 80-31	1-14-81	JST
G	REV. PER ECO # 80-102		JST
H	REV. PER ECO # 81-88		KCE
J	REV. PER ECO 81-116		



DEVICE TABLE					
REF. DES.	DEVICE TYPE	+5V GND	REF. DES.	DEVICE TYPE	5V GND
N7	74148	16 8	D8 N9 T6	74S20	14 7
C9	74LS123	16 8	R1	74S22	14 7
B8	74LS138	16 8	F10 S3	74S240	20 10
J5 K5 L5 M5	74LS174	16 8	C1	74S260	14 7
H7 H8 S4	74LS279	16 8	H3 H5 N3 N5	74S280	14 7
C10	74LS373	20 10	E9 S8	74S30	14 7
F3	74LS75	16 8	D9	74S32	14 7
C2 D2	74LS85	16 8	F4 F5 P3 P4	74S374	20 10
B2 C8 S7	74S02	14 7	D7 P5	74S51	14 7
B9 E7 P7	74S04	14 7	J4 K4 L4 M4 R5	26S11	
A9 P1 R4 R8	74S08	14 7	A1 B1 E1 F1 H1 N1 H2 N2 B3	26S10	
E8 F7 S5 S6	74S10	14 7	C3 D3 J3 K3 L3 M3 H4 N4 R6	25S09	
B7 E3 R3	74S11	14 7	A2 E2 F2 A4 B4 C4 D4 A7		
C7	74S138	16 8	J7 K7 L7 M7 J8 K8 L8 M8 J9 K9	74LS151	16 8
A3	74S139	16 8	L9 M9 J10 K10 L10 M10		
S1 T7	74S140	14 7	E5 A6 B6 C6 D6 E6 F6 B10 D10	74LS374	20 10
D1	74S158	16 8	J1 K1 L1 M1 J2 K2 L2 M2 T2	74S00	14 7
E4	74S174	16 8	P6 R7 A8 F8 N8 N10 T5 T2		
B5 C5 D5	74S181	24 12	S1 P9 R9 S9 P10 R10 S10	74S112	16 8
A5	74S182	16 8	A10 P2 P8 T3 T4 T9 T10 H10	74S74	14 7
H6 J6 K6 L6 M6 N6	74S189	16 8			

- NOTES, UNLESS OTHERWISE SPECIFIED:
- RESISTANCE VALUES ARE IN OHMS, 1/4w. 5%.
 - CAPACITANCE VALUES ARE IN MICROFARADS, 100v. 20%.
 - PIN NOS. SHOWN IN QUOTES (E.G. "4") ARE DEVICE PIN NOS.
PIN NOS. SHOWN OUTSIDE (E.G. 14) ARE SOCKET PIN NOS.

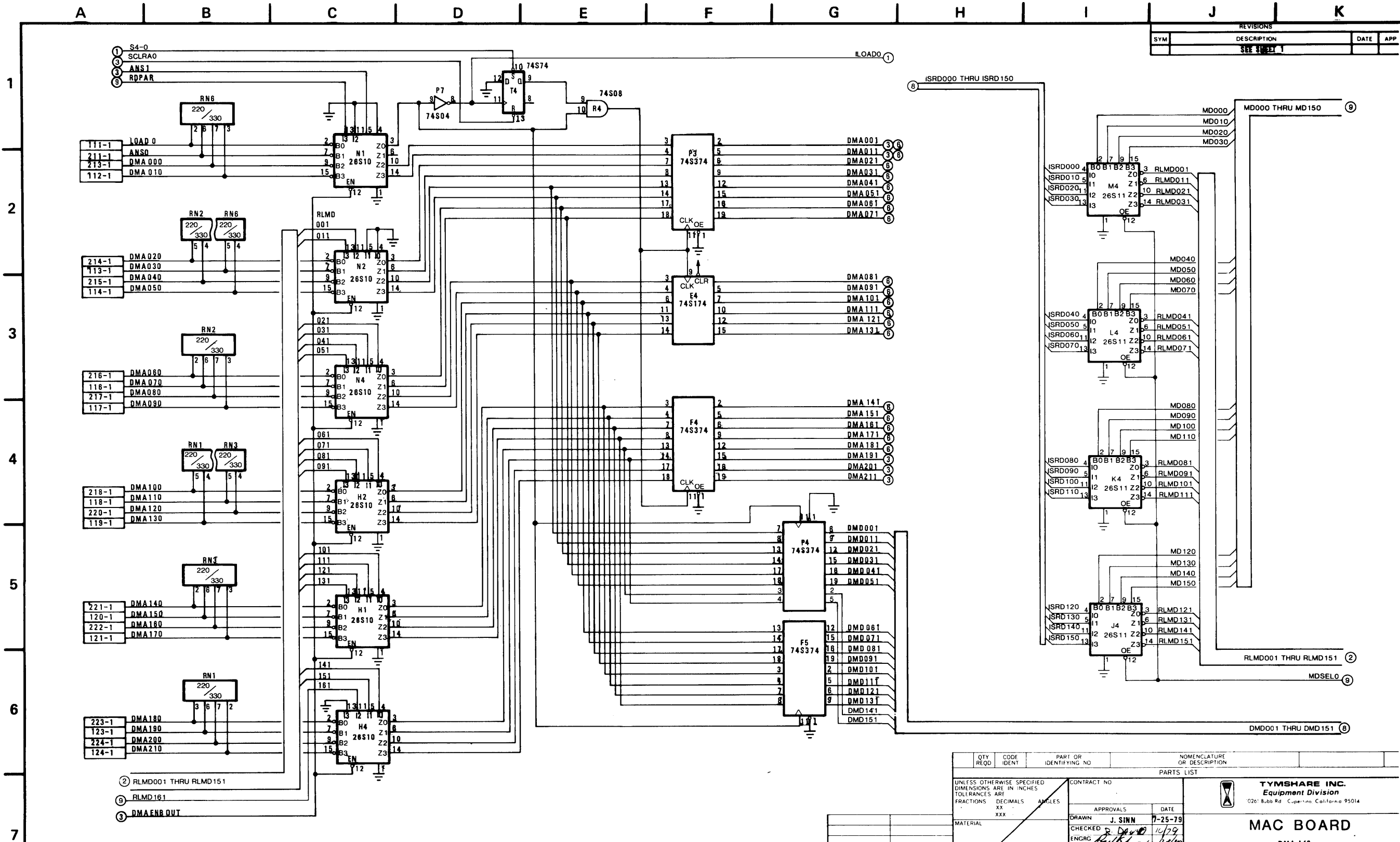
REFERENCE DESIGNATIONS	
LAST USED	NOT USED
C55	R2
R13	
RN8	
CONN1	
J1	
DLT2-1	
T10	



QTY	CODE	DESCRIPTION	NOMENCLATURE
REQD	IDENT	PARTING NO	OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX XXX			
MATERIAL		CONTRACT NO	
FINISH		APPROVALS DATE	
ASP79-1 TYMNET ENGINE		DRAWN J. SINN 7-24-79	
NEXT ASSY USED ON		CHECKED R. DAVIS 10/79	
APPLICATION		ENGRG R. DAVIS 10/79	
DO NOT SCALE DRAWING		MFG ENG R. DAVIS 10/79	
		QA R. DAVIS 10/79	
		APPROV R. DAVIS 10/79	
		APPD R. DAVIS 10/79	
		SCALE: NONE	
		DRAWING NO 440134-001	
		SHEET 1 OF 9	

TYMSHARE INC.
Equipment Division
12618, Bubb Rd. Cupertino, California 95014

MAC BOARD
DMA GRANT & MOD BUS SERIAL ST...



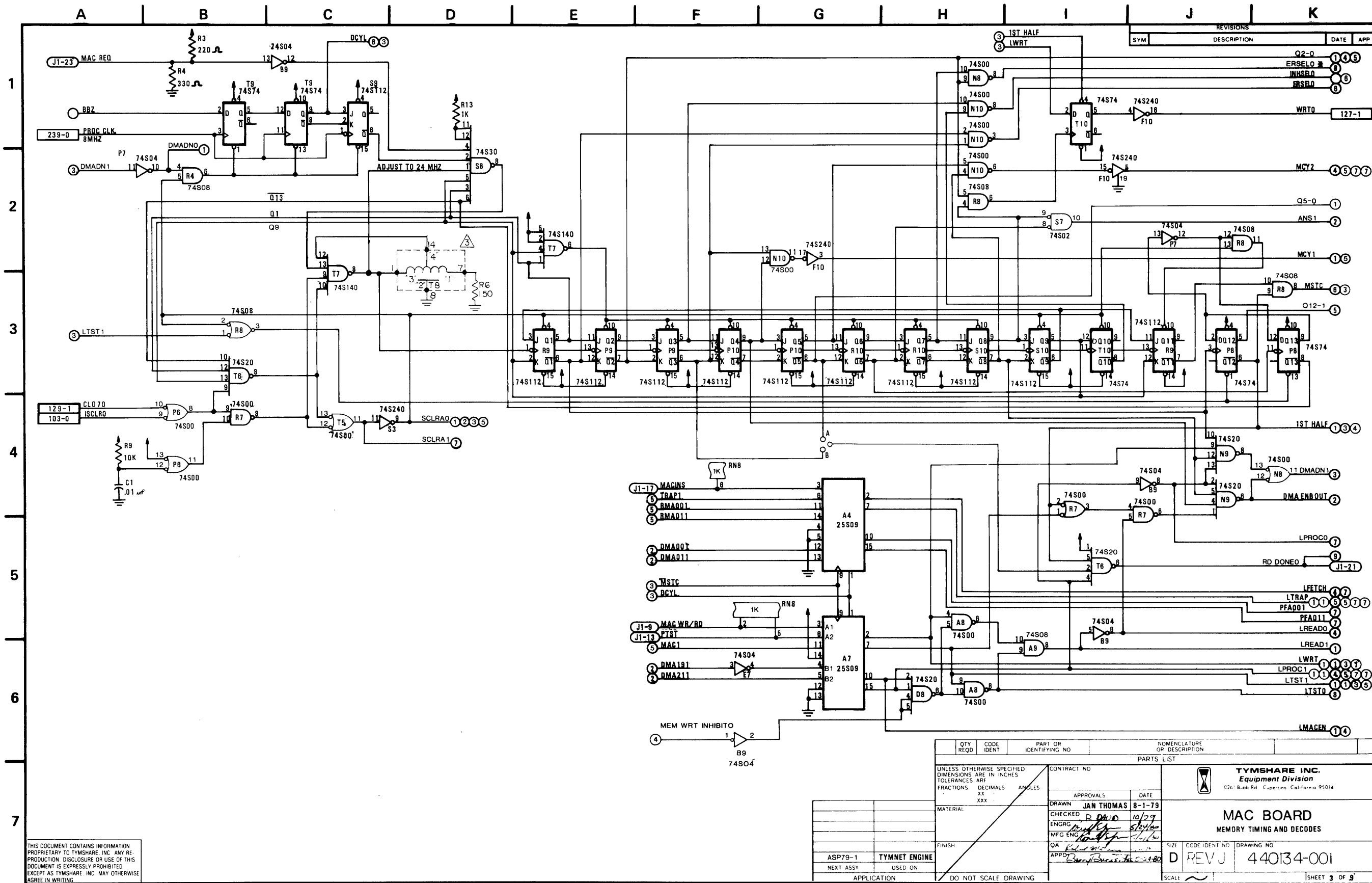
REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

1
2
3
4
5
6
7

- ② RLMD001 THRU RLMD151
- ③ RLMD 161
- ④ DMA ENR OUT

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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
MATERIAL		DRAWN J. SINN 7-25-79	CHECKED R. D. W. 10/79
FINISH		ENGRG R. D. W. 10/79	MFG ENG R. D. W. 10/79
APPLICATION TYMNET ENGINE		QA R. D. W. 10/79	APPD R. D. W. 10/79
DO NOT SCALE DRAWING		SIZE CODE IDENT NO DRAWING NO	D REV J 440134-001
SCALE NONE		SHEET 2 OF 2	

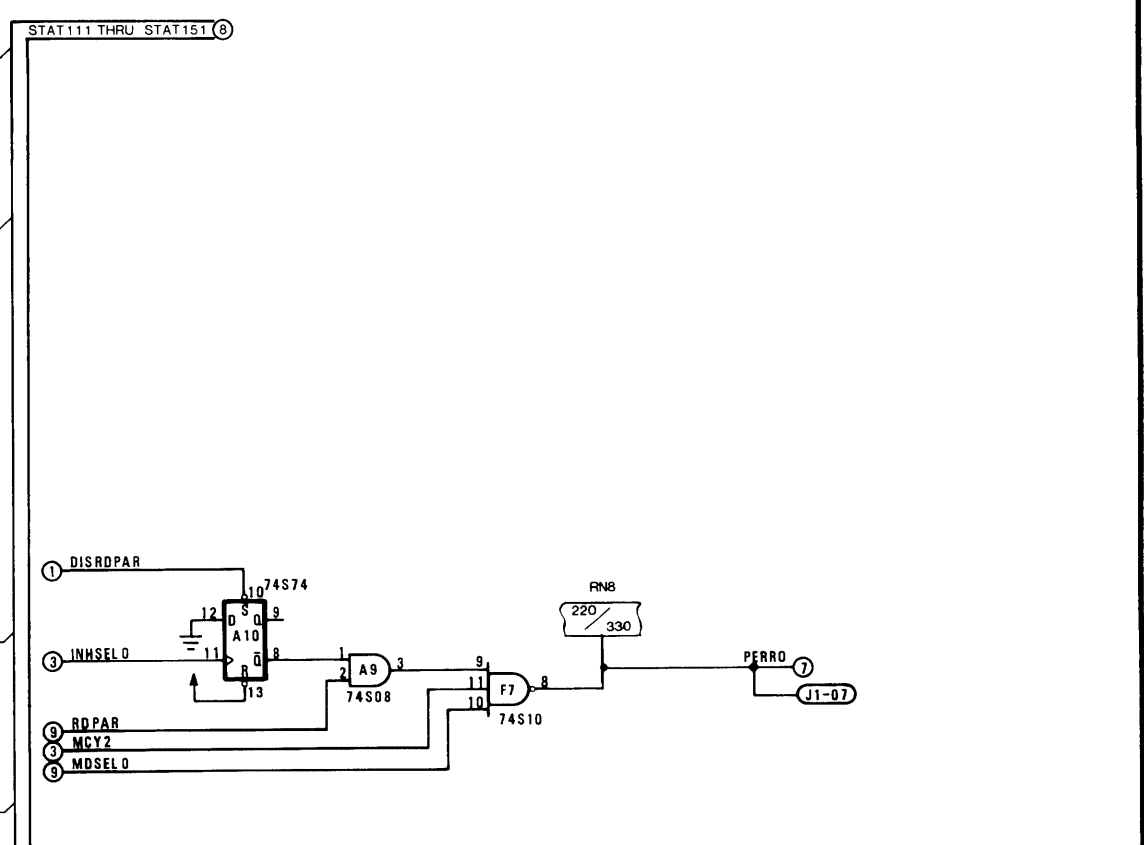
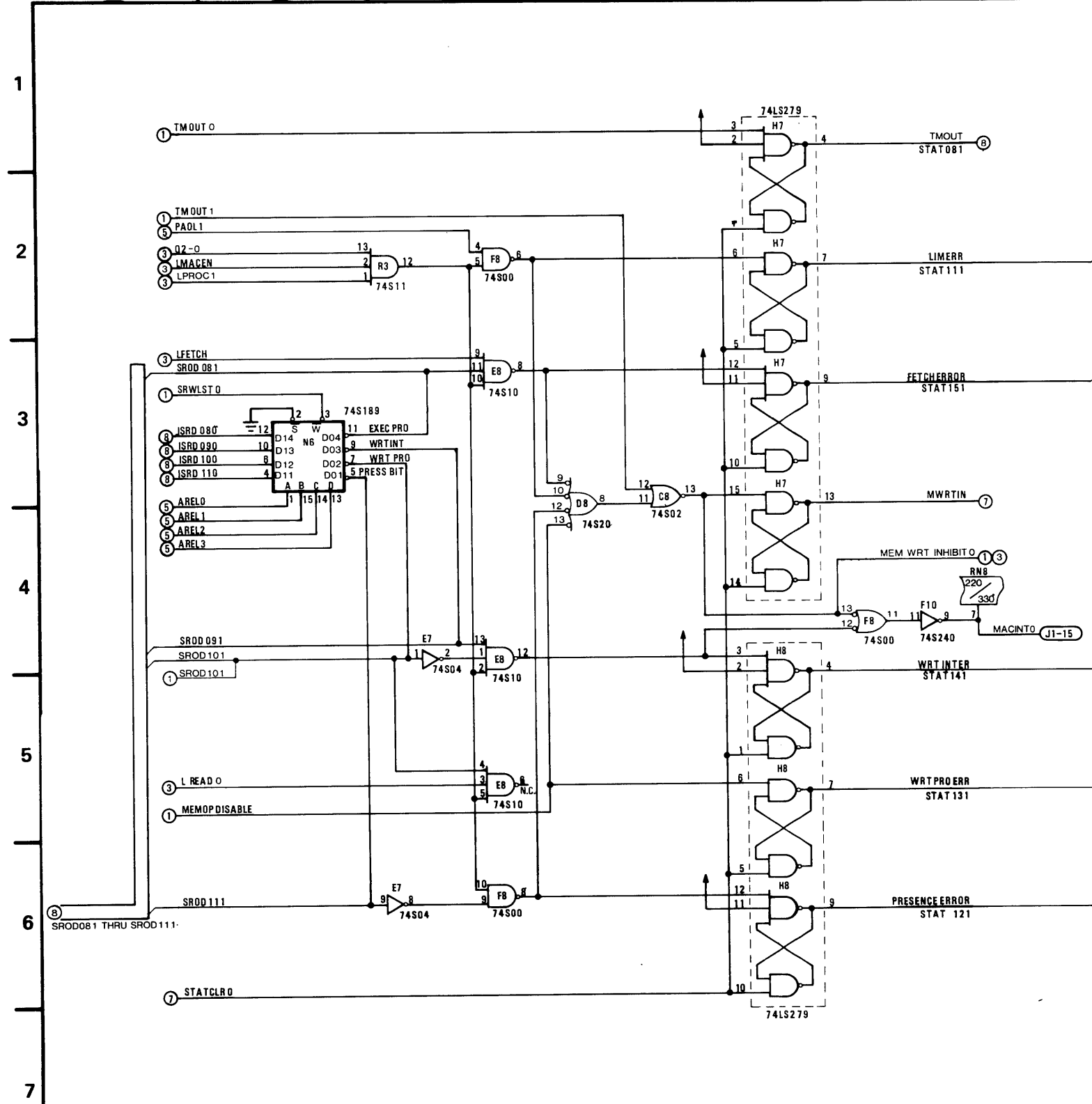


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QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES		CONTRACT NO	
xxx		APPROVALS DATE	
MATERIAL		DRAWN JAN THOMAS 8-1-79	
FINISH		CHECKED D. DAVID 10/29	
NEXT ASSY USED ON		ENGRG. [Signature] 5/2/80	
APPLICATION		MFG ENG. [Signature] 1/1/80	
DO NOT SCALE DRAWING		QA [Signature] 1/1/80	
		APPROV. [Signature] 1/1/80	
		SCALE	

TYMSHARE INC. Equipment Division ©201 Bubb Rd. Cupertino, California 95014
MAC BOARD MEMORY TIMING AND DECODES
S21 CODE IDENT NO DRAWING NO D REV J 440134-001
SHEET 3 OF 9

REVISIONS		
SYM	DESCRIPTION	DATE
	SEE SHEET 1	



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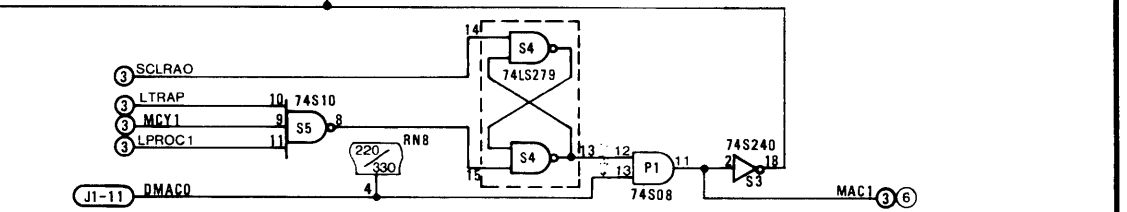
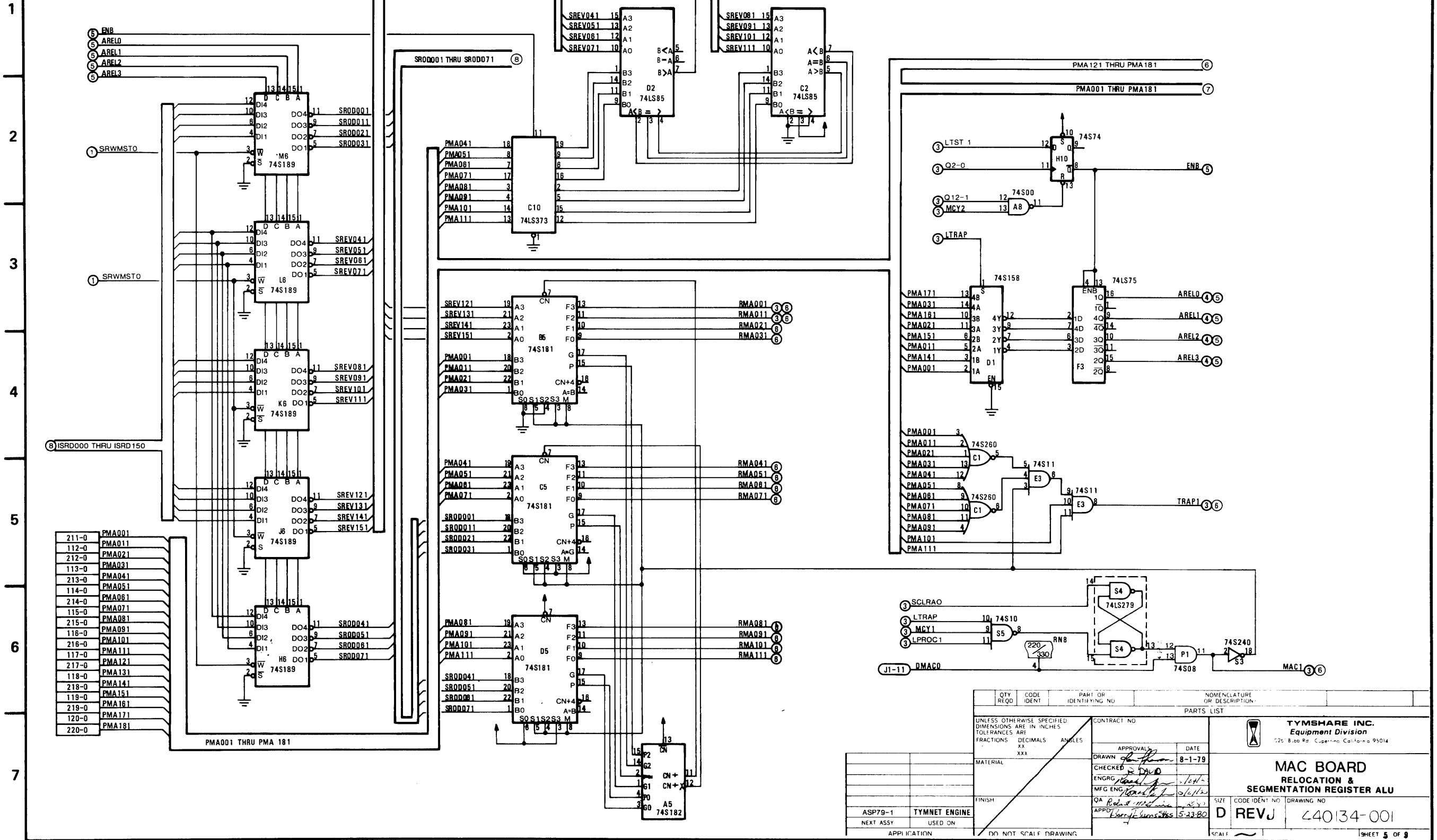
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PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX		CONTRACT NO	DATE
MATERIAL		APPROVALS	DATE
FINISH		CHECKED J. SINN 7-30-78	
NEXT ASSY USED ON		ENGRG [Signature] 10/79	
APPLICATION		MFG ENG [Signature] 1/19/81	
DO NOT SCALE DRAWING		QA [Signature] 5/24/80	
		APPD [Signature] 5-23-80	
		SIZE	CODE IDENT NO
		D REV J	440134 001
		SCALE	SHEET 4 OF 9

TYMSHARE INC.
Equipment Division
2261 B. 99th Rd. Cupertino California 95014

MAC BOARD
STATUS REGISTER & SEGMENTATION REGISTER PROTECT BITS

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REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		



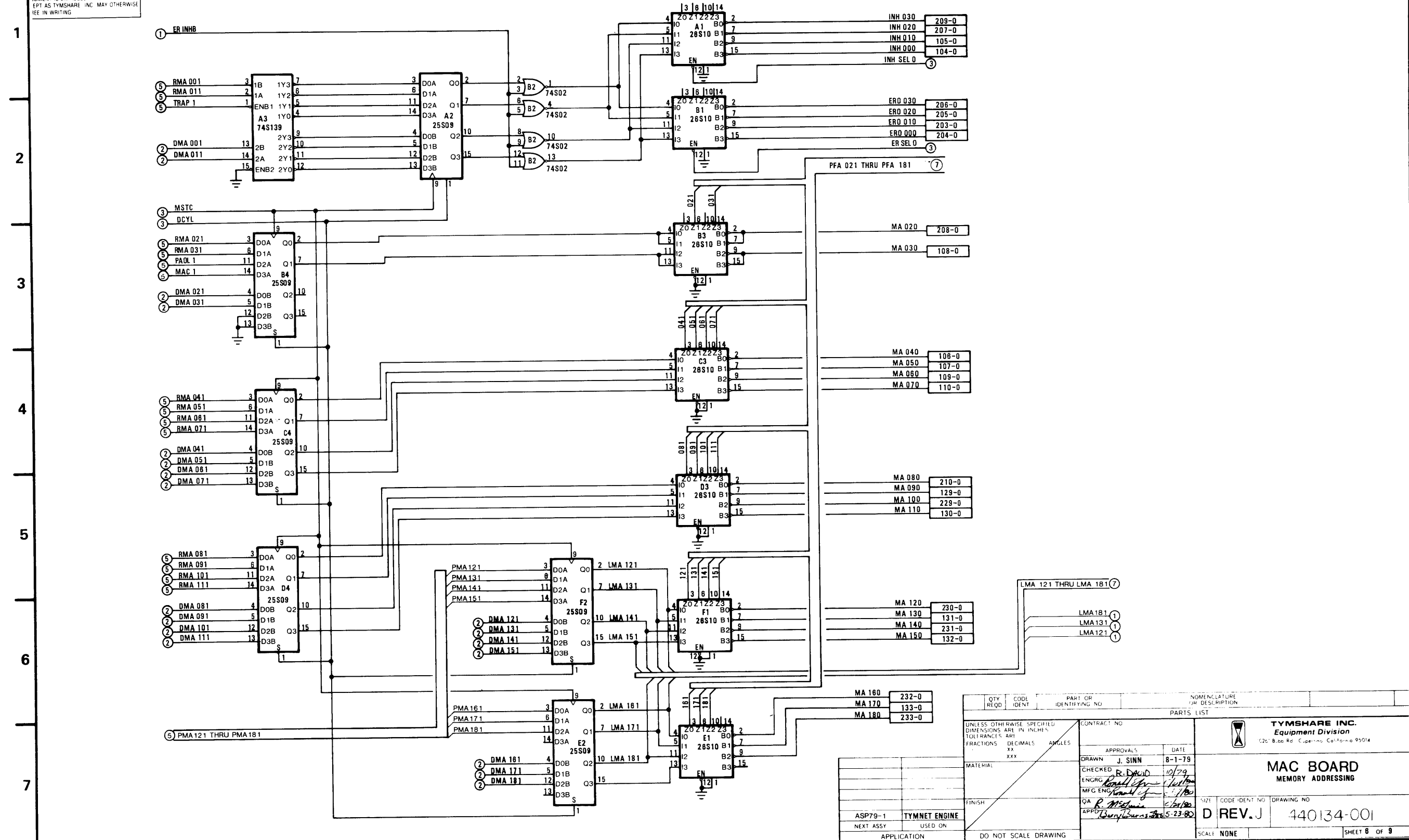
QTY	CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
			PARTS LIST

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES xxx		CONTRACT NO	
MATERIAL		APPROVAL	DATE
FINISH		CHECKED	8-1-79
ASP79-1	TYMNET ENGINE	ENGRG	
NEXT ASSY	USED ON	MFG ENG	
APPLICATION	DO NOT SCALE DRAWING	QA	
		APPROV	5-23-80

TYMSHARE INC. Equipment Division 120 B.00 Rd. Cupertino California 95014	
MAC BOARD	
RELOCATION & SEGMENTATION REGISTER ALU	
SIZE	CODE IDENT NO
D REVJ	440134-001
SCALE	SHEET 5 OF 8

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SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

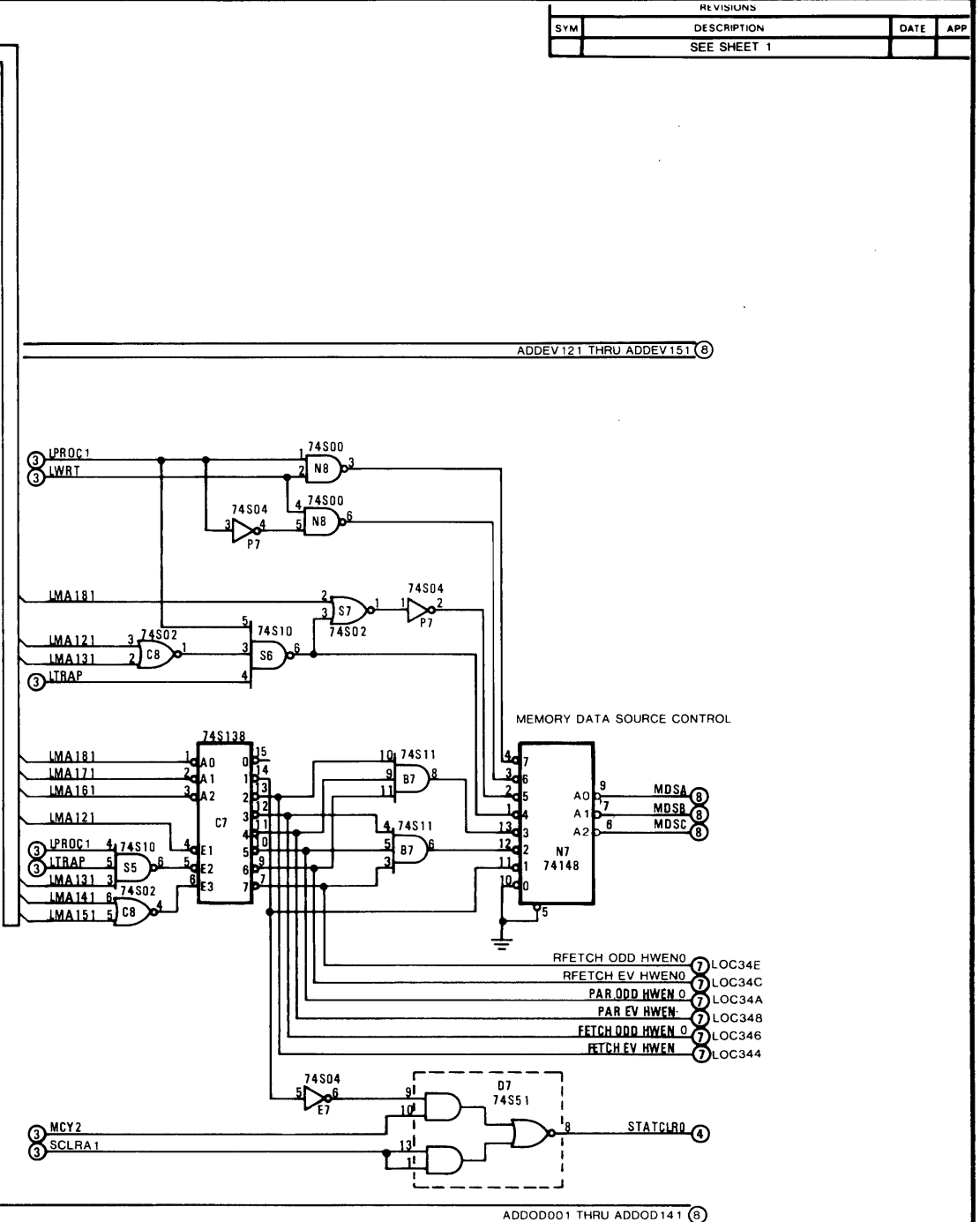
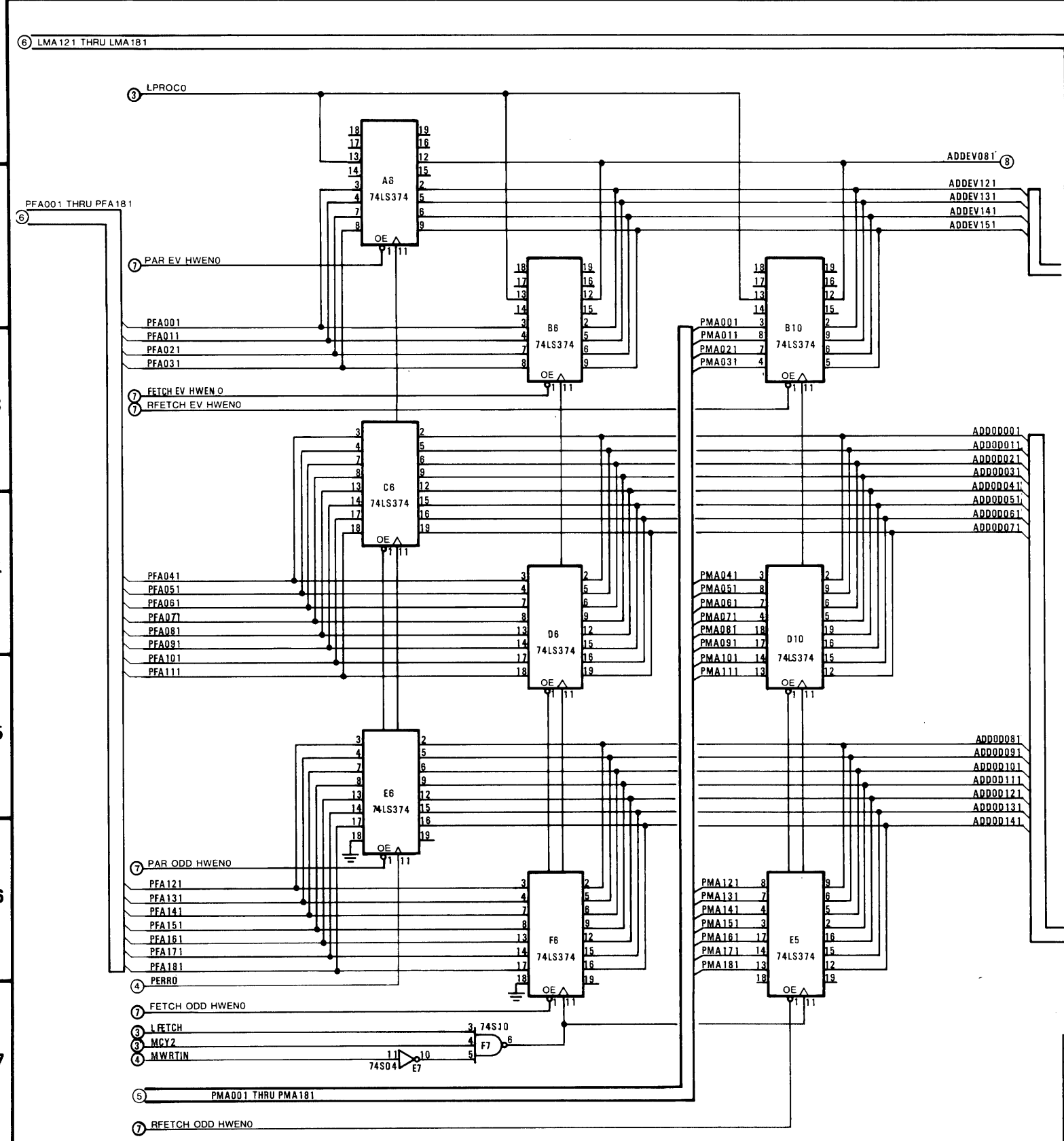


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			MA 030 108-0
			MA 040 106-0
			MA 050 107-0
			MA 060 109-0
			MA 070 110-0
			MA 080 210-0
			MA 090 129-0
			MA 100 229-0
			MA 110 130-0
			MA 120 230-0
			MA 130 131-0
			MA 140 231-0
			MA 150 132-0
			MA 160 232-0
			MA 170 133-0
			MA 180 233-0

CONTRACT NO		DATE	
APPROVALS		J. SINN	8-1-79
DRAWN			
CHECKED	R. DAVID		10/79
ENGRG			
MFG ENGR			
QA			
APPROV			

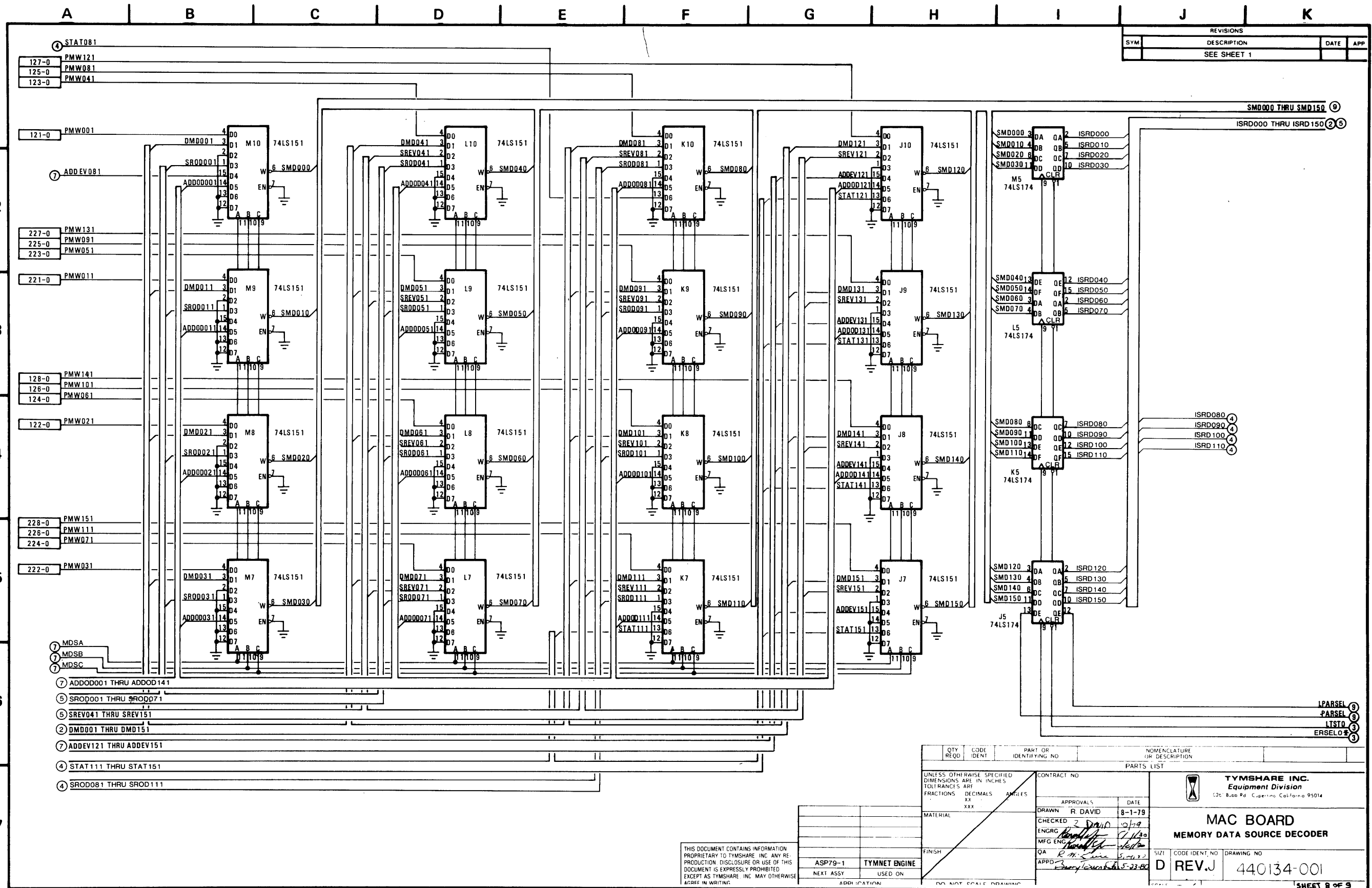
TYMSHARE INC. Equipment Division 1201 B. Lee Rd. Cupertino, California 95014	MAC BOARD MEMORY ADDRESSING
SIZE: CODE IDENT NO: DRAWING NO:	D REV. J 440134-001
SCALE: NONE	SHEET 8 OF 9

REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		



- ① PAR ODD HWENO
- ② PFA121
- ③ PFA131
- ④ PFA141
- ⑤ PFA151
- ⑥ PFA161
- ⑦ PFA171
- ⑧ PFA181
- ⑨ PERRO
- ⑩ FETCH ODD HWENO
- ⑪ LFETCH
- ⑫ MCY2
- ⑬ MWRTIN
- ⑭ PMA001 THRU PMA181
- ⑮ RFETCH ODD HWENO

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	MATERIAL FINISH ASP79-1 TYMNET ENGINE NEXT ASSY USED ON APPLICATION	DO NOT SCALE DRAWING	8-1-79 0/29 0/28/80 0/1/80 0/23/80



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

- 1 ④ STAT081
- 1 127-0 PMW121
- 1 125-0 PMW081
- 1 123-0 PMW041
- 2 121-0 PMW001
- 2 ⑦ ADDDEV081
- 3 227-0 PMW131
- 3 225-0 PMW091
- 3 223-0 PMW051
- 3 221-0 PMW011
- 4 128-0 PMW141
- 4 126-0 PMW101
- 4 124-0 PMW061
- 4 122-0 PMW021
- 5 228-0 PMW151
- 5 226-0 PMW111
- 5 224-0 PMW071
- 5 222-0 PMW031
- 6 ⑦ MDSA
- 6 ⑦ MDSB
- 6 ⑦ MDSC
- 6 ⑦ ADD0D001 THRU ADD0D141
- 6 ⑤ SROD001 THRU SROD071
- 6 ⑤ SREV041 THRU SREV151
- 6 ② DMDD001 THRU DMDD151
- 6 ⑦ ADDEV121 THRU ADDEV151
- 7 ④ STAT111 THRU STAT151
- 7 ④ SROD081 THRU SROD111

SMD000 THRU SMD150 ②
ISRD000 THRU ISRD150 ②⑤

ISRD080 ②
ISRD090 ④
ISRD100 ④
ISRD110 ④

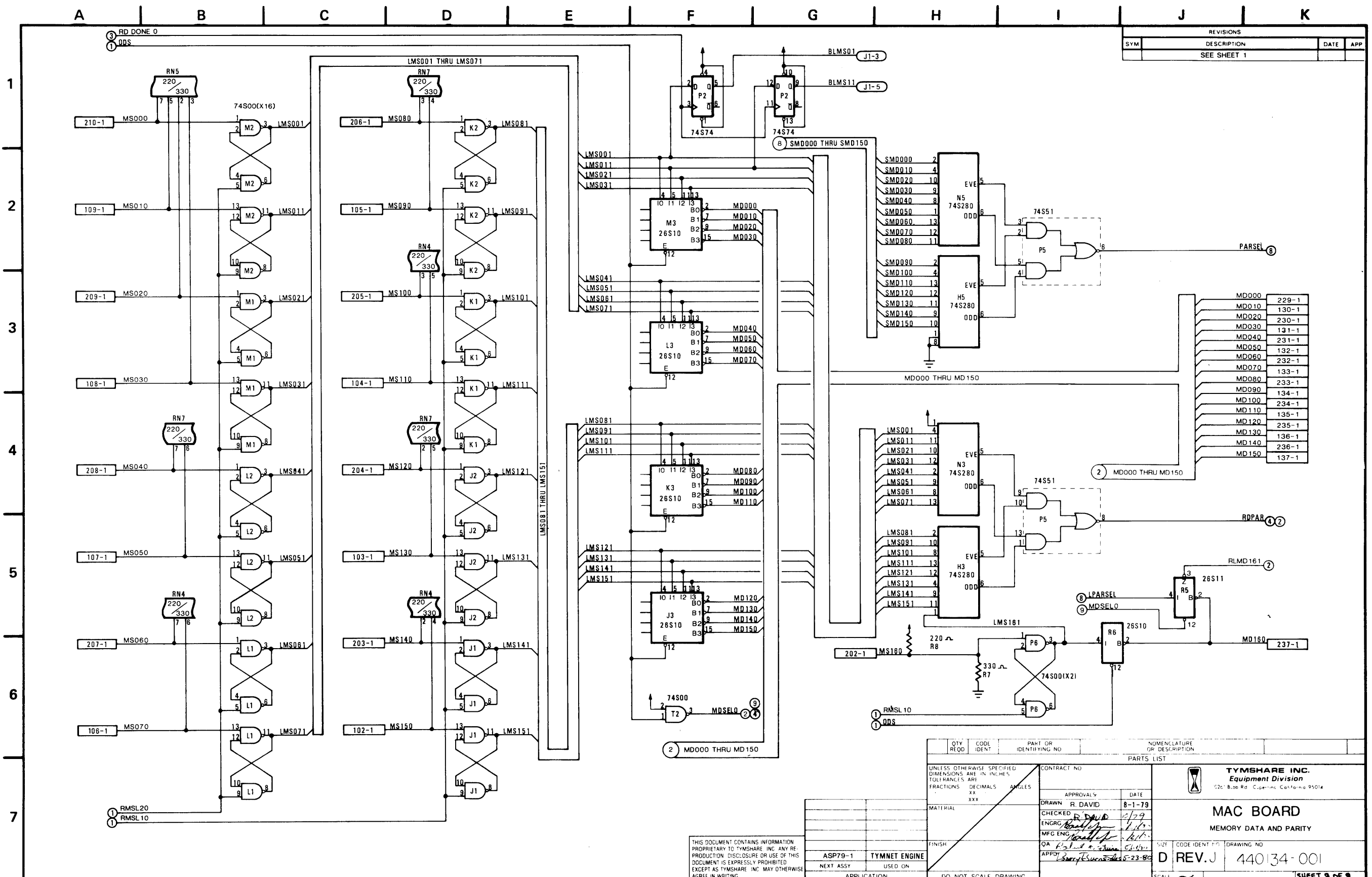
IPARSEL ⑧
PARSEL ⑧
LTSTD ⑧
ERSELO# ⑧

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 XXX			
MATERIAL		CONTRACT NO	
FINISH		APPROVALS	
NEXT ASSY		DATE	
USED ON		DRAWN R DAVID 8-1-79	
APPLICATION		CHECKED 2 DAVID 10/29	
DO NOT SCALE DRAWING		ENGRG [Signature] 7/1/80	
		MFG ENG [Signature]	
		QA [Signature]	
		APPD [Signature]	
		SIZE CODE IDENT NO DRAWING NO	
		D REV.J 440134-001	
		SHEET 8 OF 9	

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TYMSHARE INC.
Equipment Division
120 Bala Rd., Cupertino, California 95014

MAC BOARD
MEMORY DATA SOURCE DECODER



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

MD000	229-1
MD010	130-1
MD020	230-1
MD030	131-1
MD040	231-1
MD050	132-1
MD060	232-1
MD070	133-1
MD080	233-1
MD090	134-1
MD100	234-1
MD110	135-1
MD120	235-1
MD130	136-1
MD140	236-1
MD150	137-1

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
			xxx
			MATERIAL
			FINISH
			CONTRACT NO
			APPROVALS DATE
			DRAWN R. DAVID 8-1-79
			CHECKED
			ENGRG
			MFG ENG
			QA
			APPROV
			SIZE CODE IDENT # DRAWING NO
			D REV. J 440134-001

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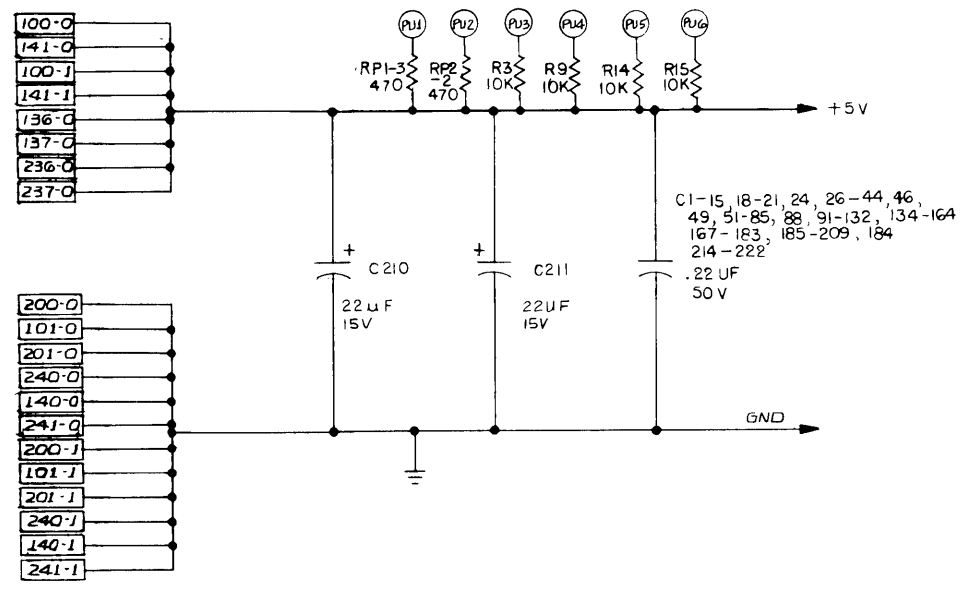
ASP79-1	TYMNET ENGINE
NEXT ASSY	USED ON
APPLICATION	DO NOT SCALE DRAWING

A B C D E F G H I J K

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REVISIONS			
SYM	DESCRIPTION	DATE	APP
B	PLC 0013	11-11-81	RK
C	PLC 0076	11/15/81	RK
D	ECO 82-84 A	11-23-82	1-2-83

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- NOTES: UNLESS OTHERWISE SPECIFIED.
1. REFERENCE ASSY DWG NO 430109-001.
 2. ALL RESISTANCE VALUES ARE IN OHMS 1/4 W 5%.
 3. ALL CAPACITANCE VALUES ARE IN PICOFARADS.
 4. ALL INTEGRATED CIRCUITS DEVICES ARE 7400 SERIES AND VOLTAGE PINS AND GROUND PINS ARE AS FOLLOWS.

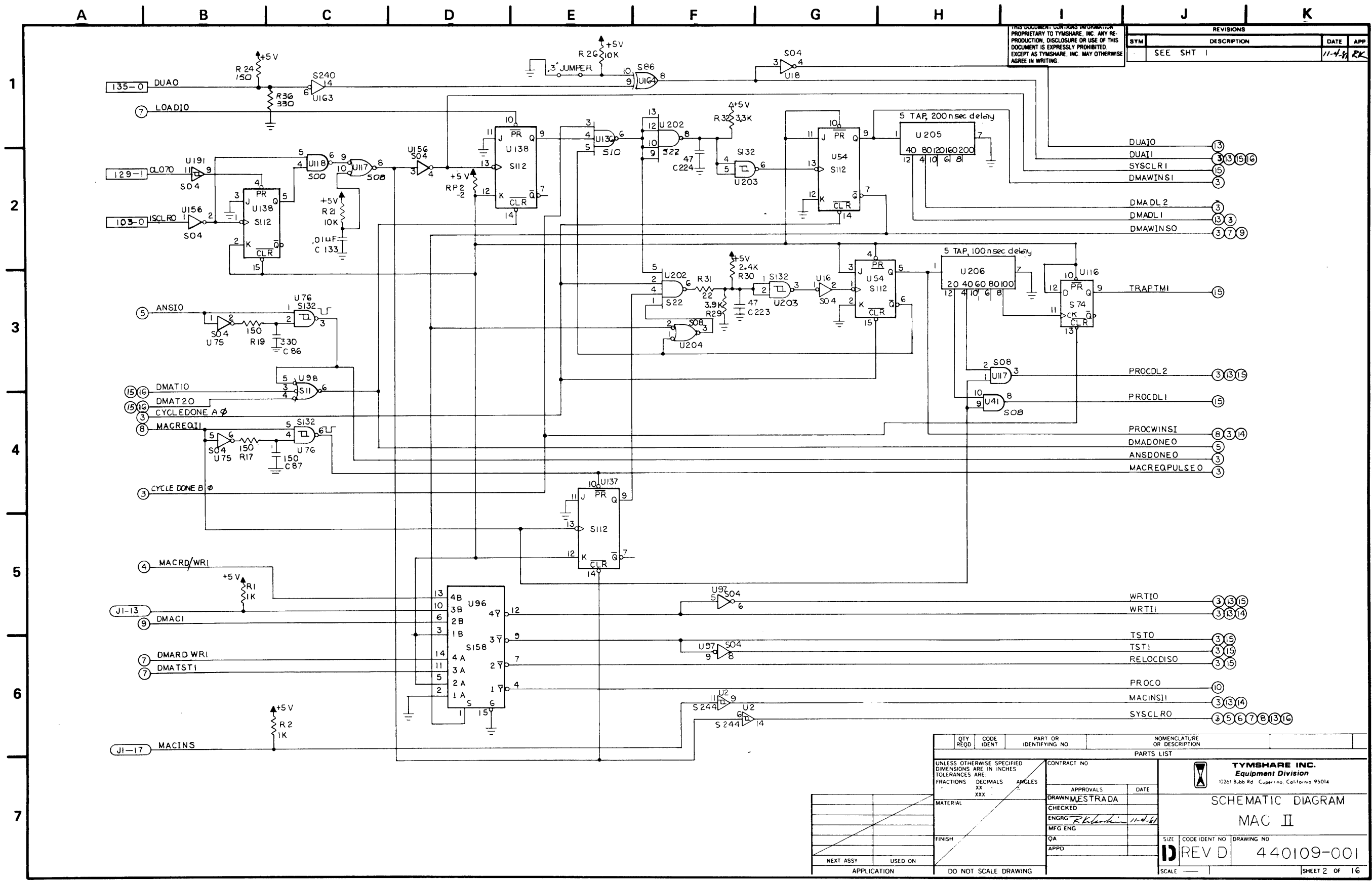
DEVICE TYPE	VOLTAGES	
	+5 V	GROUND
74S00	14	7
02	14	7
04	14	7
08	14	7
10	14	7
11	14	7
20	14	7
22	14	7
30	14	7
32	14	7
51	14	7
74	14	7
86	14	7
112	16	8
132	14	7
138	16	8
139	16	8
157	16	8
175	16	8
181	24	12
182	16	8
240	20	10
241	20	10
244	20	10
260	14	7
280	14	7
373	20	10
74S374	20	10
74LS75	5	12
123	16	8
193	16	8
273	20	10
279	16	8
283	16	8
373	20	10
374	20	10
393	14	7
74LS682	20	10
26510	16	1,8
26511	16	1,8
93422	22	8

LAST USED	NOT USED
U209, R36, C225	U197, U198, U199, U201
	R11, R22, C16, C45
	C165

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 XXX		CONTRACT NO	
MATERIAL		APPROVALS	DATE
FINISH		DRAWN M. ESTRADA	8-26-81
NEXT ASSY USED ON		CHECKED	
APPLICATION		ENGRG <i>[Signature]</i>	11-1-81
DO NOT SCALE DRAWING		MFG ENG	
		QA	
		APPD	
		SIZE	CODE IDENT NO
		10	440109-001
		SCALE	SHEET 1 OF 16

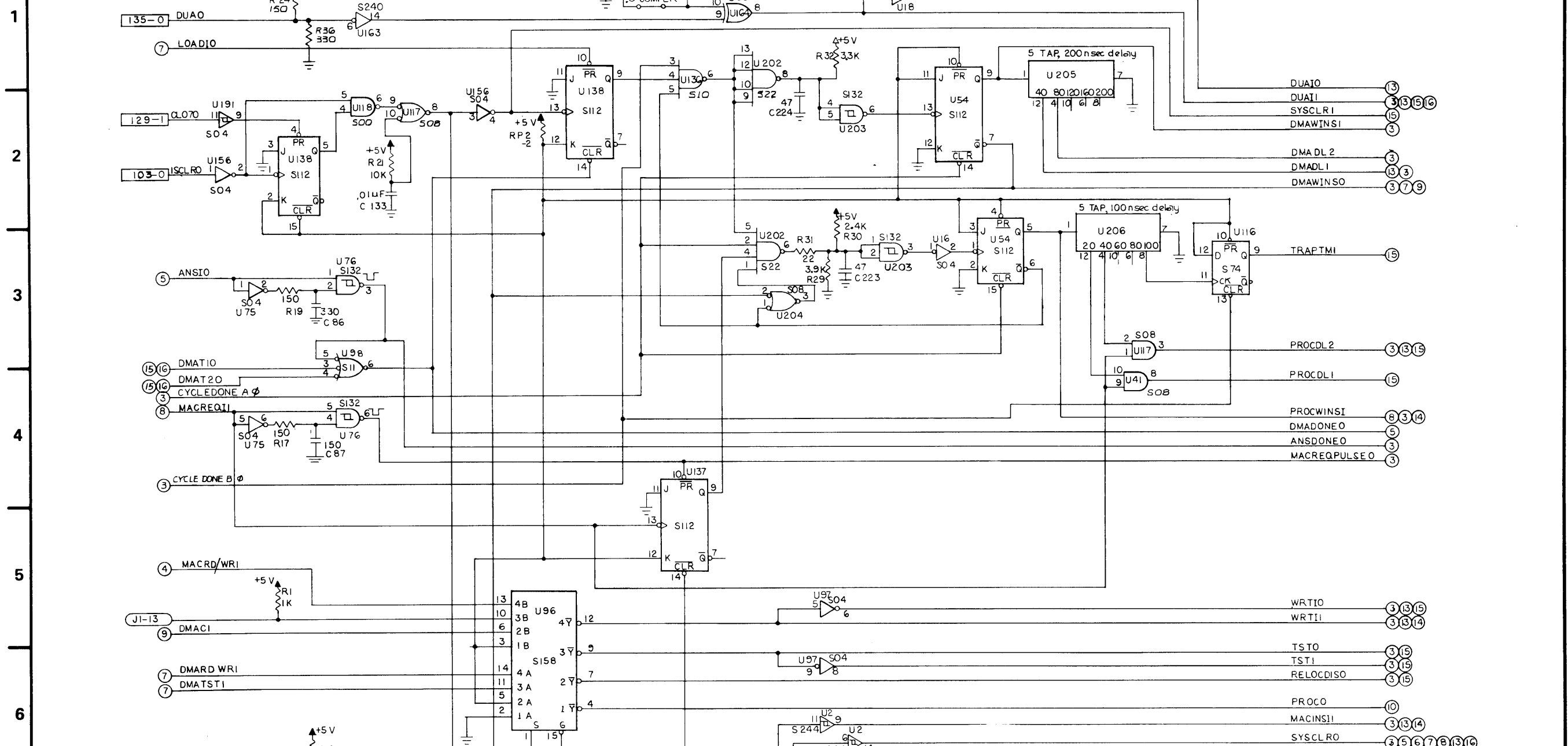
TYMSHARE INC.
Equipment Division
10201 Burb Rd Cupertino California 95014

SCHMATIC DIAGRAM
MAC II



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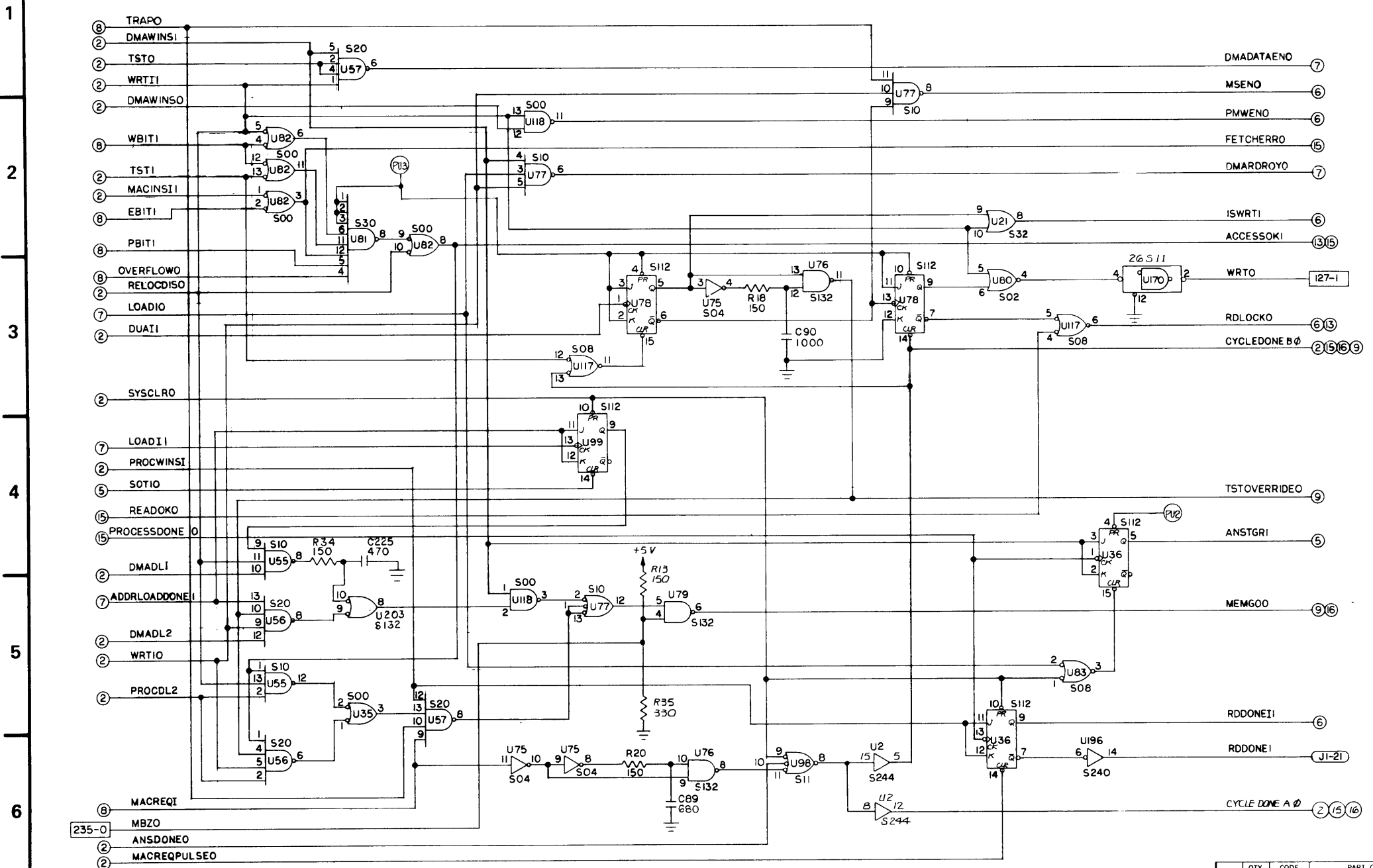
REVISIONS			
SYM	DESCRIPTION	DATE	APP
SEE SHT 1		11-4-61	RK



QTY	CODE	PART OR	NOMENCLATURE
REQD	IDENT	IDENTIFYING NO.	OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX		CONTRACT NO.	
MATERIAL		APPROVALS	DATE
FINISH		ENGRG	
NEXT ASSY USED ON APPLICATION		MFG ENG	
		APPD	
DO NOT SCALE DRAWING		TYMSHARE INC. Equipment Division 10261 Burb Rd. Cupertino, California 95014 SCHEMATIC DIAGRAM MAC II SIZE CODE IDENT NO DRAWING NO D REV D 440109-001 SCALE SHEET 2 OF 16	

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REVISIONS			
SYM	DESCRIPTION	DATE	APP



QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION

PARTS LIST	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. FRACTIONS DECIMALS ANGLES	CONTRACT NO
	APPROVALS DATE
	CHECKED
	ENGRG <i>R. G. L.</i> 11-4-81
	MFG ENG
	QA
	APPD
	SIZE CODE IDENT NO DRAWING NO
	REV D 440109-001
	SCALE

APPLICATION	USED ON

TYMSHARE INC.
Equipment Division
12018 Lubb Rd. Cupertino, California 95014

MAC II SCHEMATIC

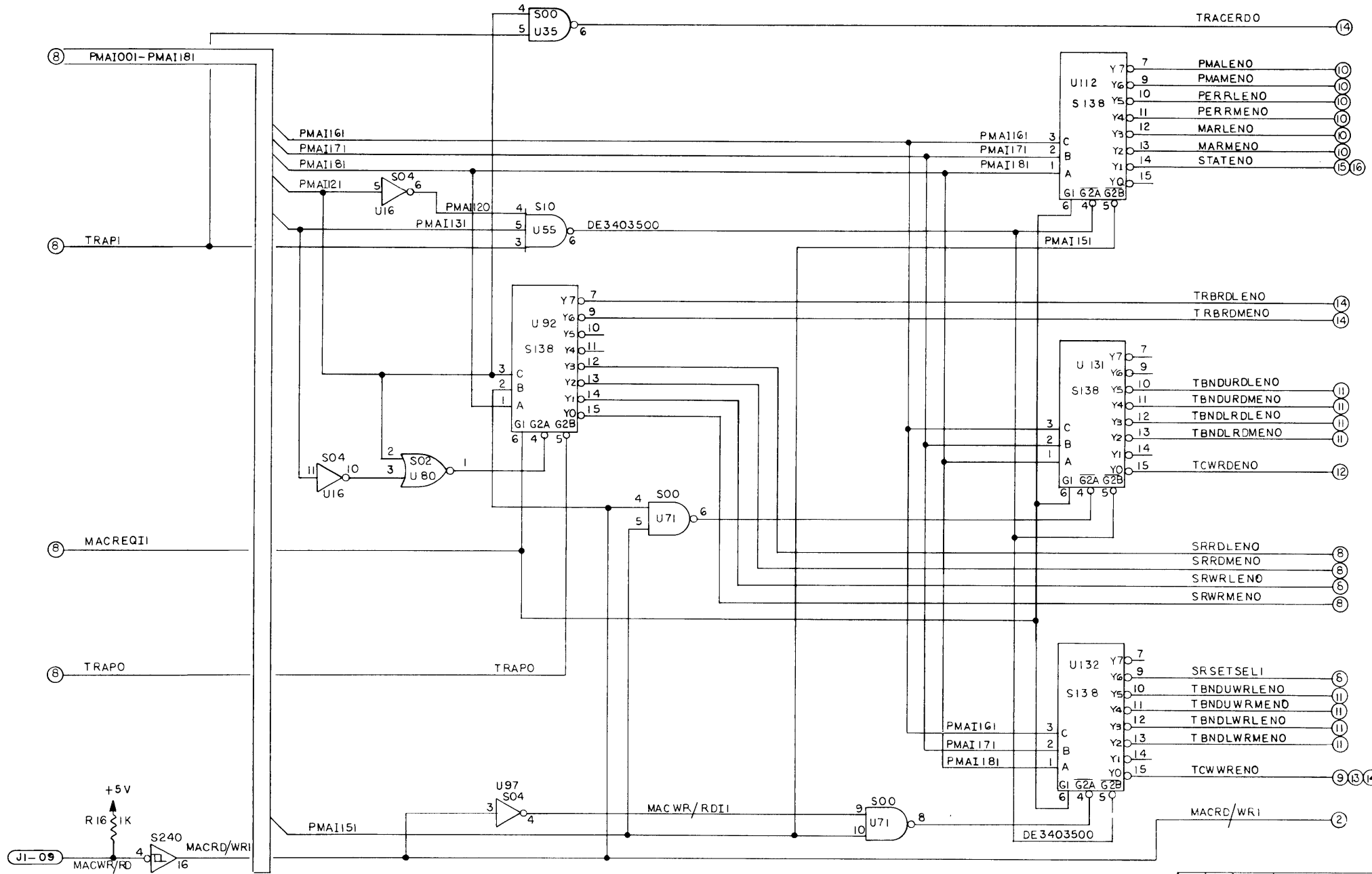
REV D 440109-001

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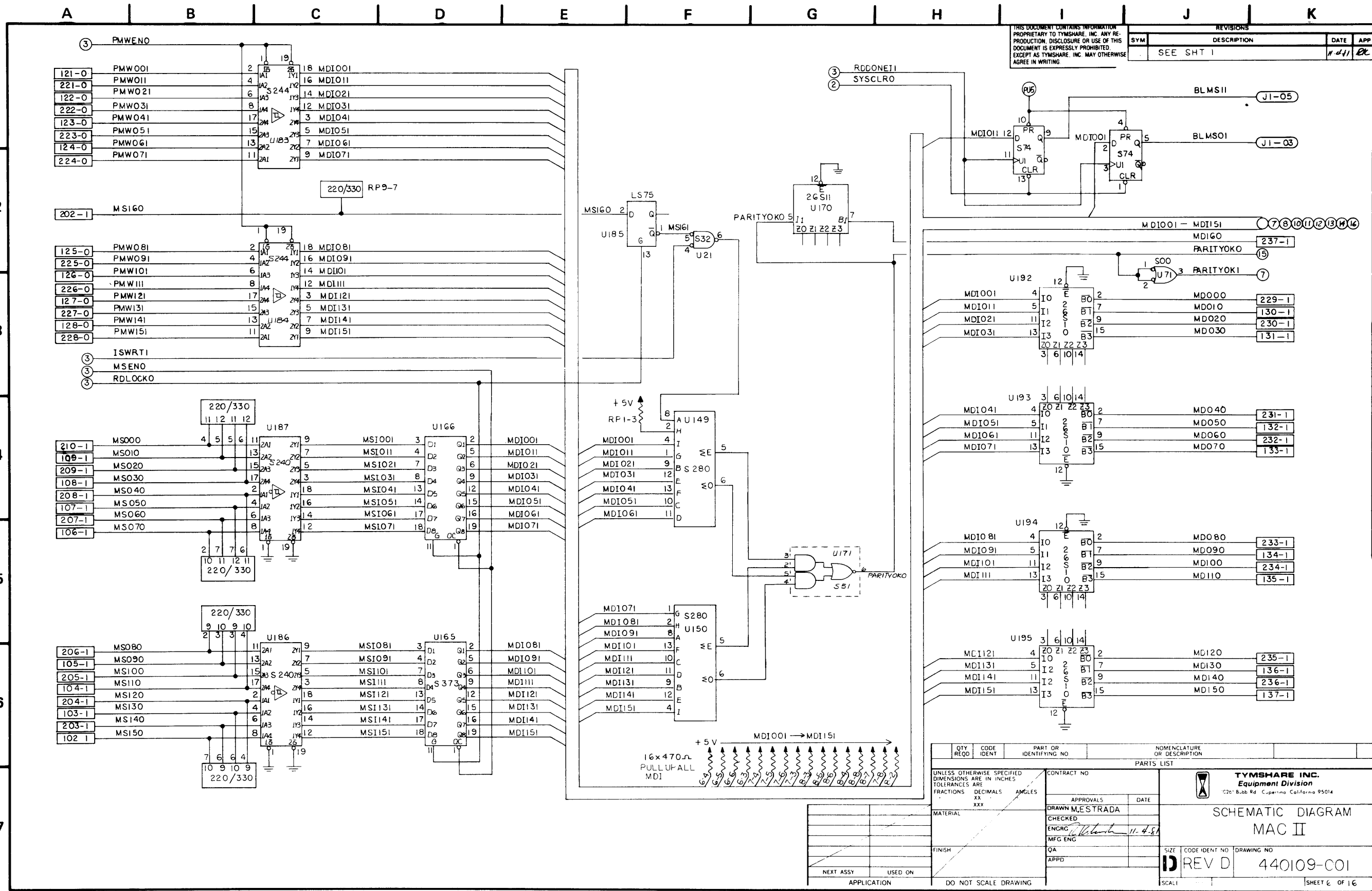
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REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHT 1	11-2-81	RE



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 xxx .xxx .		CONTRACT NO	
MATERIAL		APPROVALS	DATE
FINISH		CHECKED	
NEXT ASSY USED ON APPLICATION		ENGRG	11-2-81
		MFG ENG	
		QA	
		APPD	
DO NOT SCALE DRAWING		TYMSHARE INC. Equipment Division 10261 Burbank Rd. Cupertino, California 95014	
		SCHEMATIC DIAGRAM MAC II	
		SIZE	CODE IDENT NO
		REV D	DRAWING NO
			440109-C01
		SCALE	SHEET 4 OF 16



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REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHT 1	11/4/81	EL

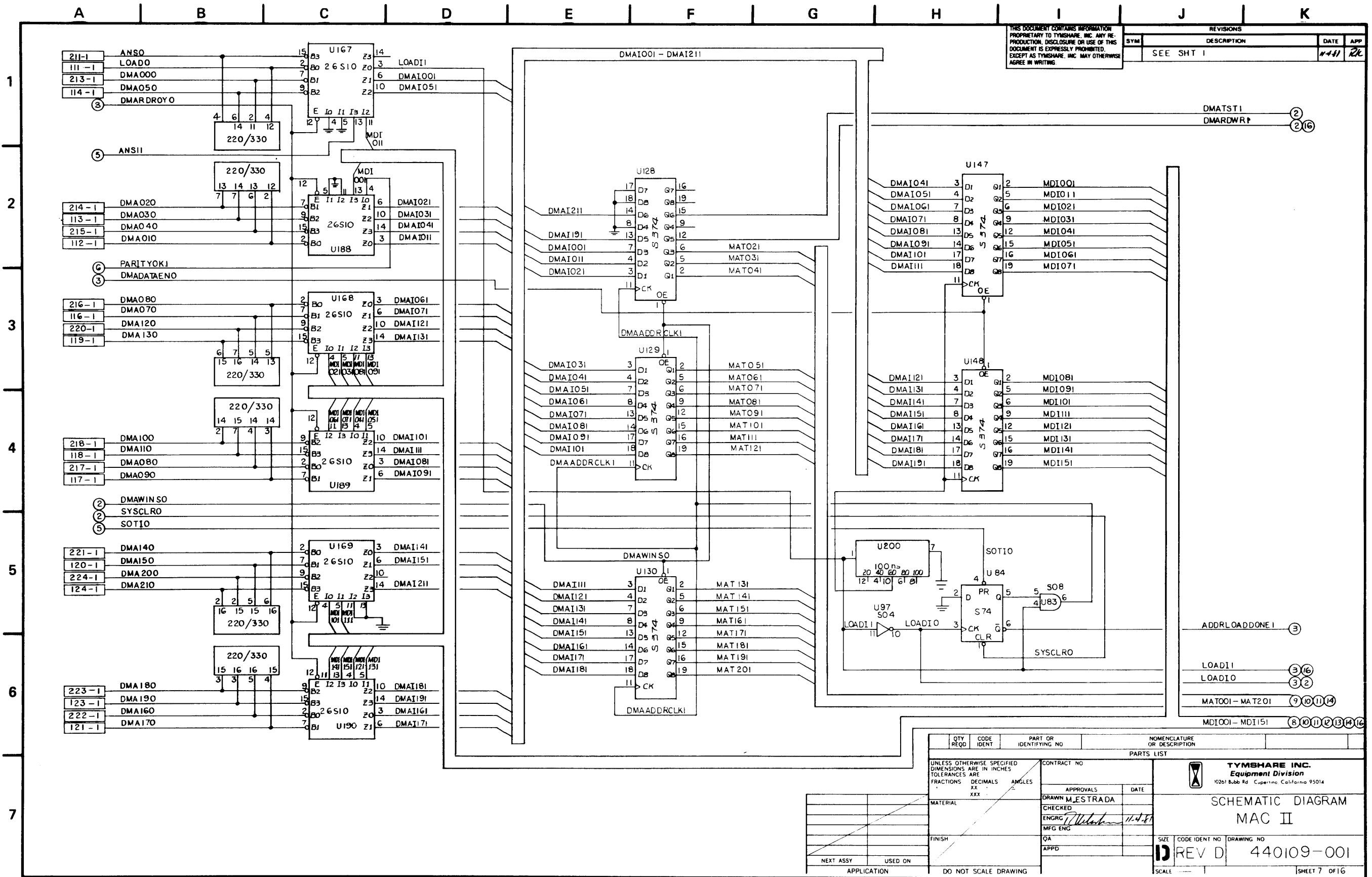
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PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES xxx			
MATERIAL		CONTRACT NO	
FINISH		APPROVALS DATE	
NEXT ASSY USED ON APPLICATION		DRAWN M. ESTRADA	
		CHECKED	
		ENGRG	
		MFG ENG	
		QA	
		APPD	
		SIZE CODE IDENT NO DRAWING NO	
		REV D 440109-C01	
		SCALE SHEET 6 OF 16	

TYMSHARE INC. Equipment Division 1721 Bubb Rd. Cupertino California 95014

SCHMATIC DIAGRAM MAC II

REV D 440109-C01

SHEET 6 OF 16



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REVISIONS			
SYM	DESCRIPTION	DATE	APP
SEE SHT 1		11-4-81	RL

DMAI001 - DMAI211

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DMARDWR1

ADDRLOADDONE1

LOADI1
LOADIO

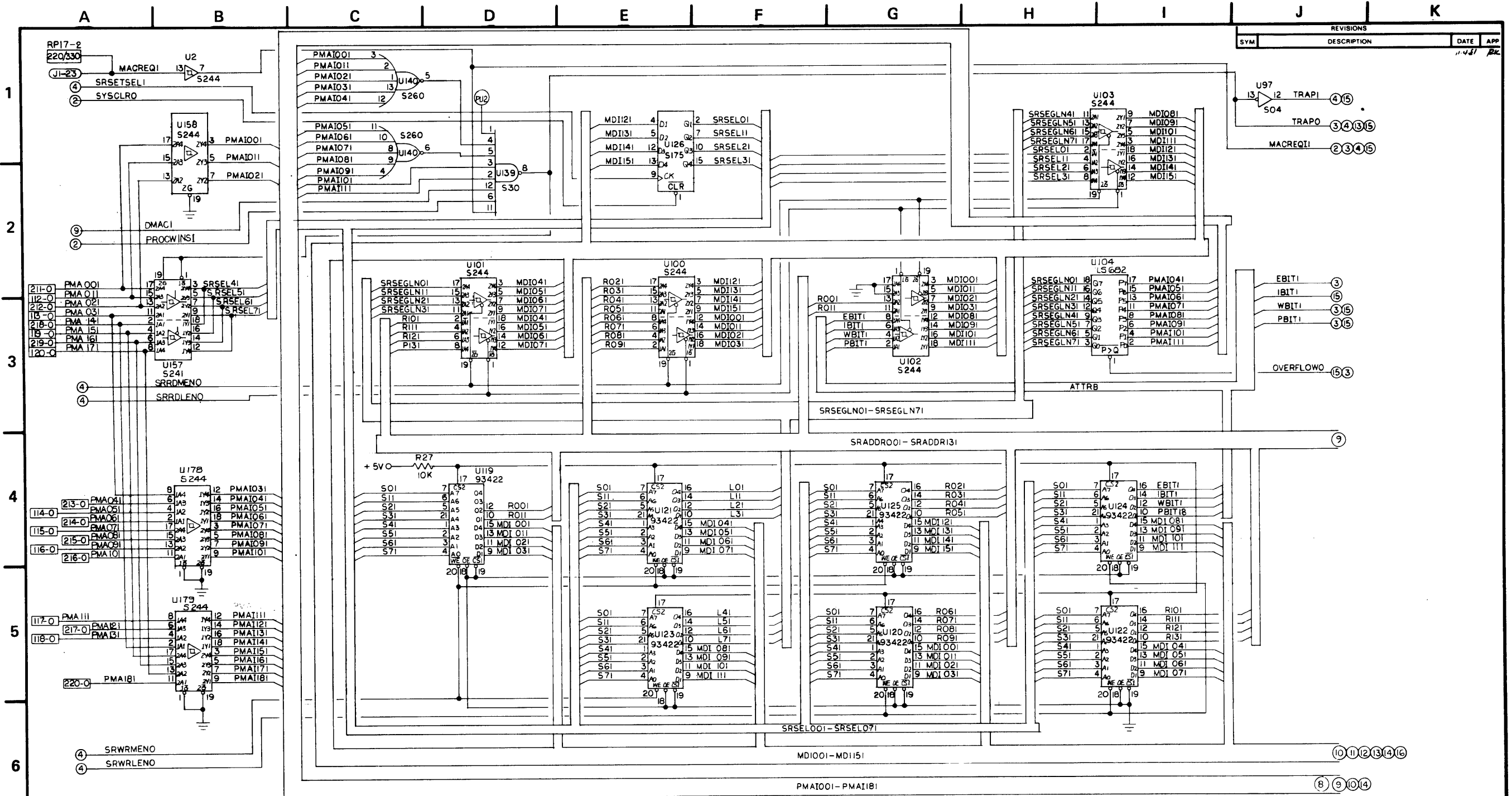
MAT001 - MAT201

MDI001 - MDI151

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PARTS LIST			
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MATERIAL		APPROVALS DATE	
FINISH		DRAWN M. ESTRADA	
NEXT ASSY		ENGRG [Signature] 11-4-81	
USED ON		MFG ENG	
APPLICATION		QA	
DO NOT SCALE DRAWING		APPD	
SCALE		SIZE CODE IDENT NO DRAWING NO	
		REV D 440109-001	
		SHEET 7 OF 16	

TYMESHARE INC.
Equipment Division
10201 Burb Rd Cupertino California 95014

SCHMATIC DIAGRAM
MAC II



REVISIONS		
SYM	DESCRIPTION	DATE APP
		11-11-81 BZ

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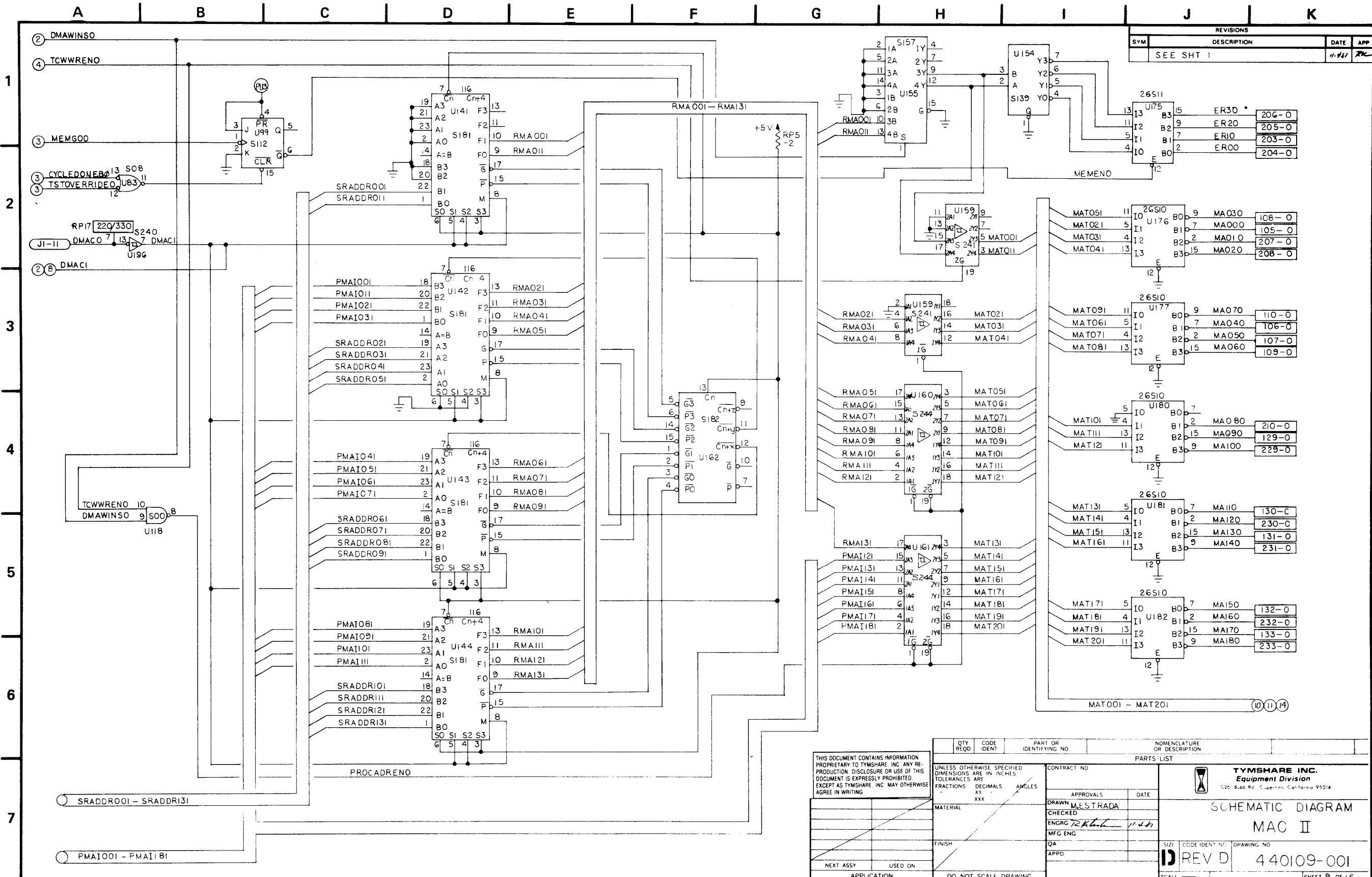
U97
SO4
TRAPI 4 15
TRAPO 3 4 13 15
MACREQI 2 3 4 15
EBITI 3
IBITI 15
WBITI 3 15
PBITI 3 15
OVERFLOW 15 3
SRSEGLN01-SRSEGLN71
SRADDDRO01-SRADDDRI31
SRSELO01-SRSELO71
MDIO01-MDIO151
PMAIO01-PMAIO181
10 11 12 13 14 16
8 9 10 14

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MATERIAL		FINISH		DRAWN M. ESTRADA		10-23-81		11-11-81	
NEXT ASSY		USED ON		CHECKED ENGRG		MFG ENG		APPD	
APPLICATION		DO NOT SCALE DRAWING		SCALE		SIZE		CODE IDENT NO	
				REV D		440109-001		DRAWING NO	
				SCALE		SHEET 8 OF 16			

TYMSHARE INC.
Equipment Division
©201 Babb Rd Cupertino California 95014

MAC II
SCHEMATIC

REV D 440109-001



REVISIONS			
SYM	DESCRIPTION	DATE	APP
SEE SHT 1		11-161	RK

QTY REQD		CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST				
MATERIAL		CONTRACT NO		
FINISH		APPROVALS DATE		
NEXT ASSY USED ON		DRAWN MESTRADA		
APPLICATION		CHECKED ENGRG 12/1/61		
DO NOT SCALE DRAWING		MFG ENG		
		QA APPD		
		SIZE CODE IDENT NO DRAWING NO		
		REV D 440109-001		
		SCALE SHEET 9 OF 16		

TYMSHARE INC.
Equipment Division
626 8th St., Cupertino, California 95014

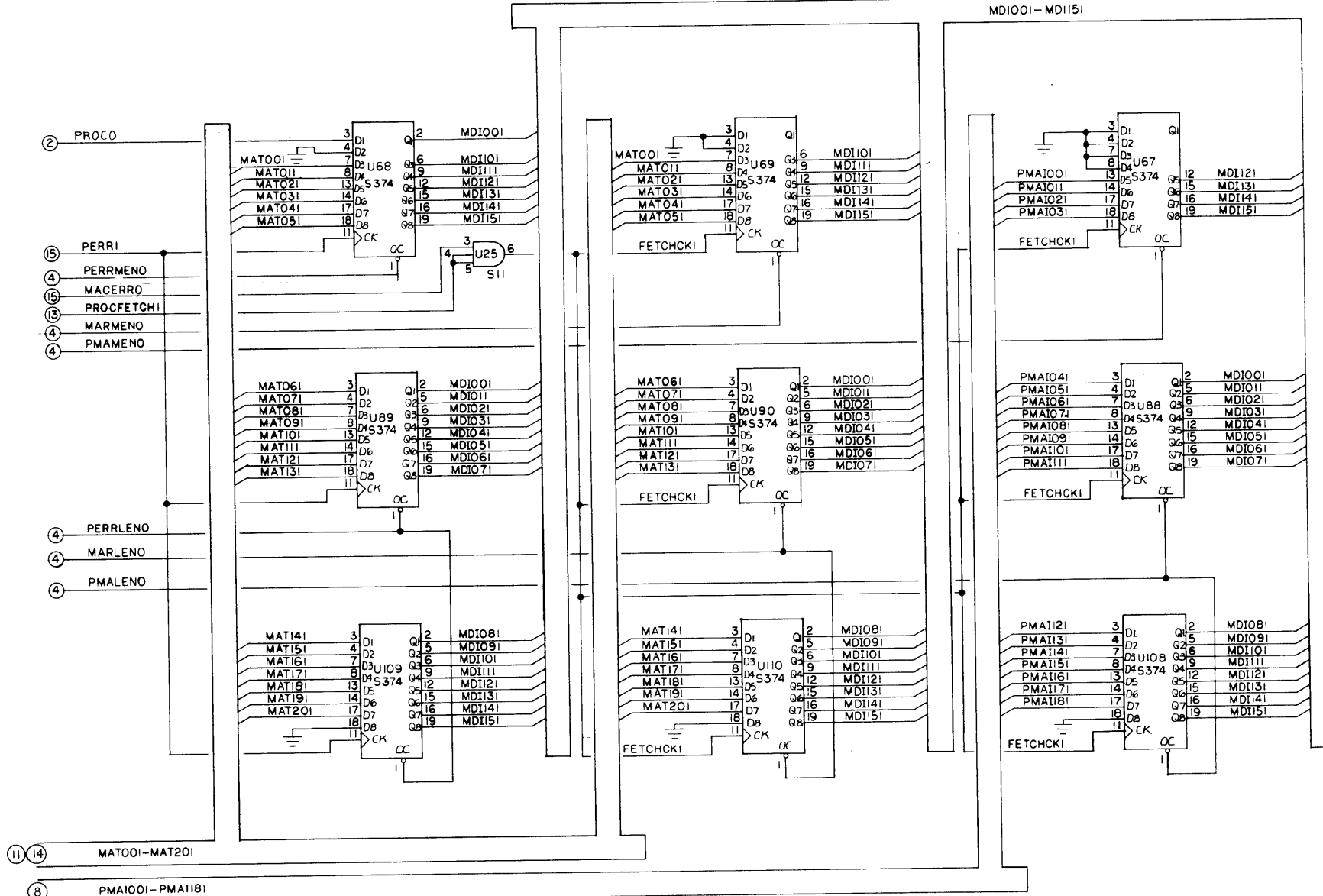
SCHEMATIC DIAGRAM
MAC II

A B C D E F G H I J K

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REVISIONS			
SYM	DESCRIPTION	DATE	APP
		11-4-81	TRC

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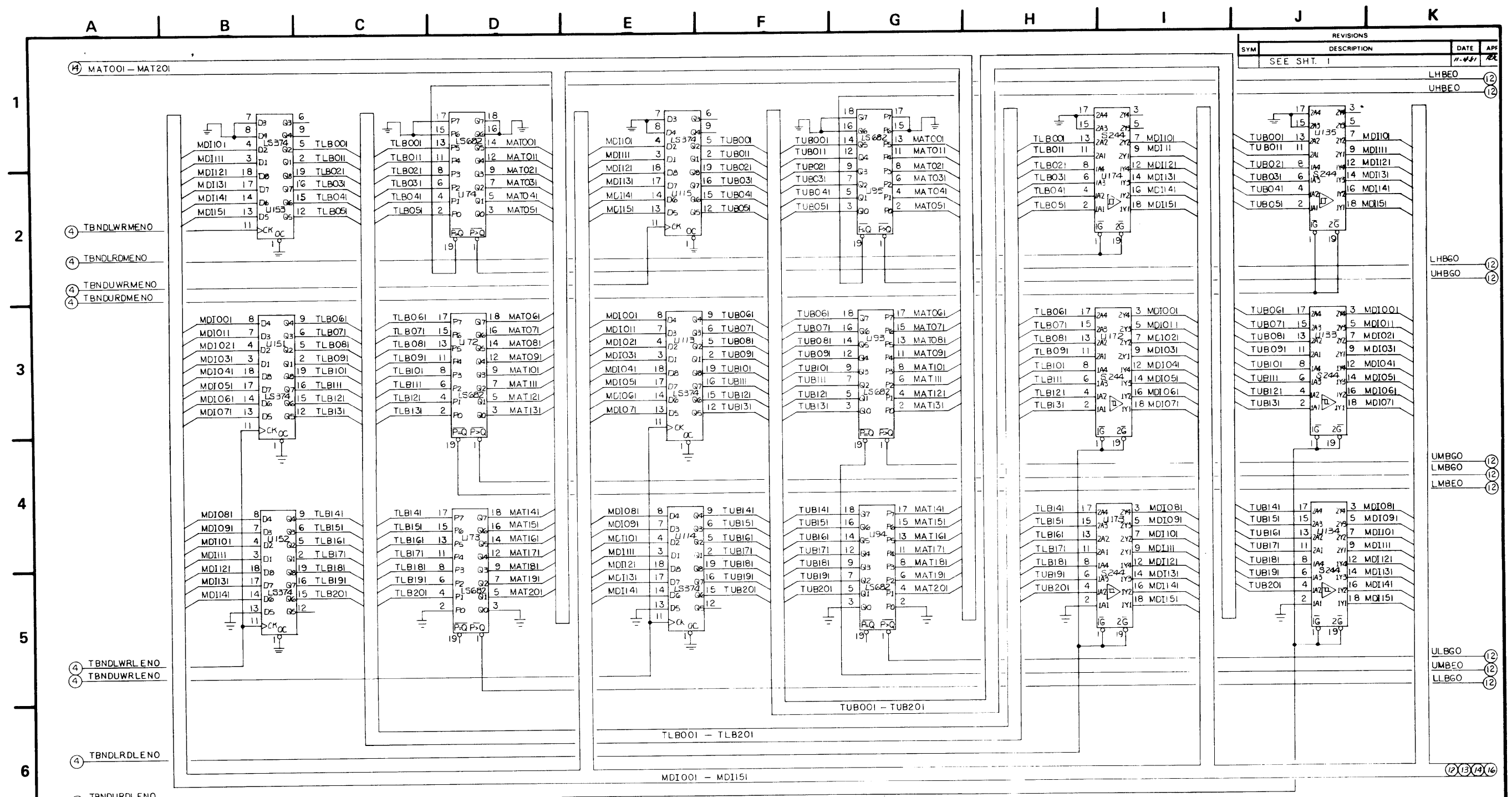


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(8) PMA1001-PMA1181

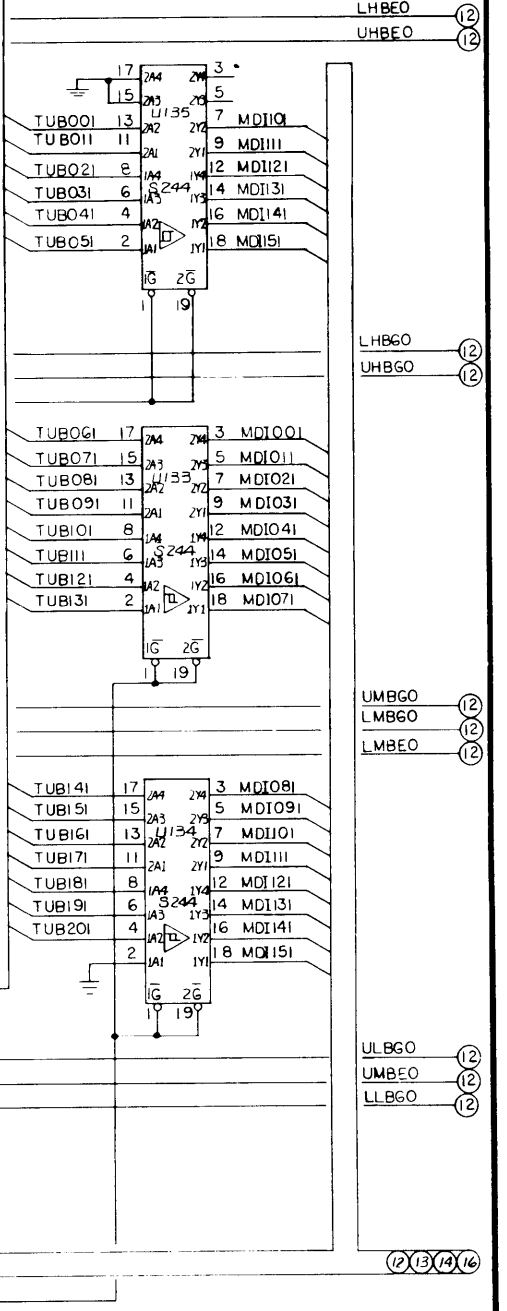
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MATERIAL		APPROVALS	DATE
FINISH		CHECKED	
NEXT ASSY		ENGRG	11-4-81
USED ON		MFG ENG	
APPLICATION		QA	
DO NOT SCALE DRAWING		APPD	
		SIZE	CODE IDENT NO DRAWING NO
		SCALE	REV D 440109-001
			SHEET 10 OF 16

TYMSHARE INC.
Equipment Division
10261 Bubb Rd. Cupertino, California 95014

MAC II
SCHEMATIC



REVISIONS		
SYM	DESCRIPTION	DATE
SEE SHT. 1		11-14-81



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- ④ MAT001 - MAT201
- ④ TBNDLRMENO
- ④ TBNDLRDLENO
- ④ TBNDUWRMENO
- ④ TBNDURDLENO
- ④ MDI001 - MDI151
- ④ TBNDLRWLENO
- ④ TBNDUWLENO
- ④ TBNDLRDLENO
- ④ TBNDURDLENO

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	PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES xx xxx xxx	CONTRACT NO		APPROVALS	
	DRAWN M.E. STRADA		DATE 8-17-81	
CHECKED		ENGRG <i>[Signature]</i> 11-14-81		
MFG ENG		QA		
APPD		REV D		
NEXT ASSY		USED ON		SCALE
APPLICATION		DO NOT SCALE DRAWING		SIZE CODE IDENT NO DRAWING NO
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TYMSHARE INC.
Equipment Division
2201 B.06 Rd. Cupertino, California 95014

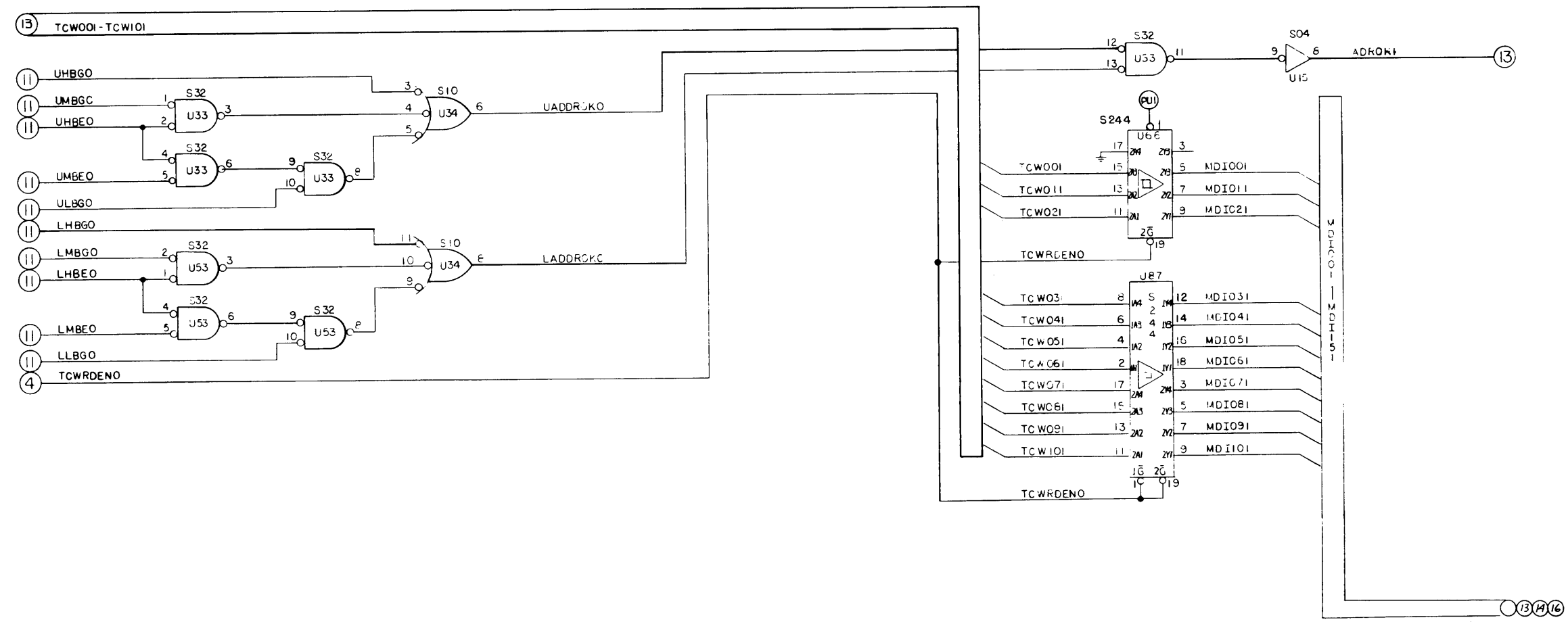
SCHMATIC DIAGRAM
M-C II

REV D
12-0109-001

A B C D E F G H I J K

REVISIONS			
SYM	DESCRIPTION	DATE	APP
SEE SHT. 1		11-4-51	RZ

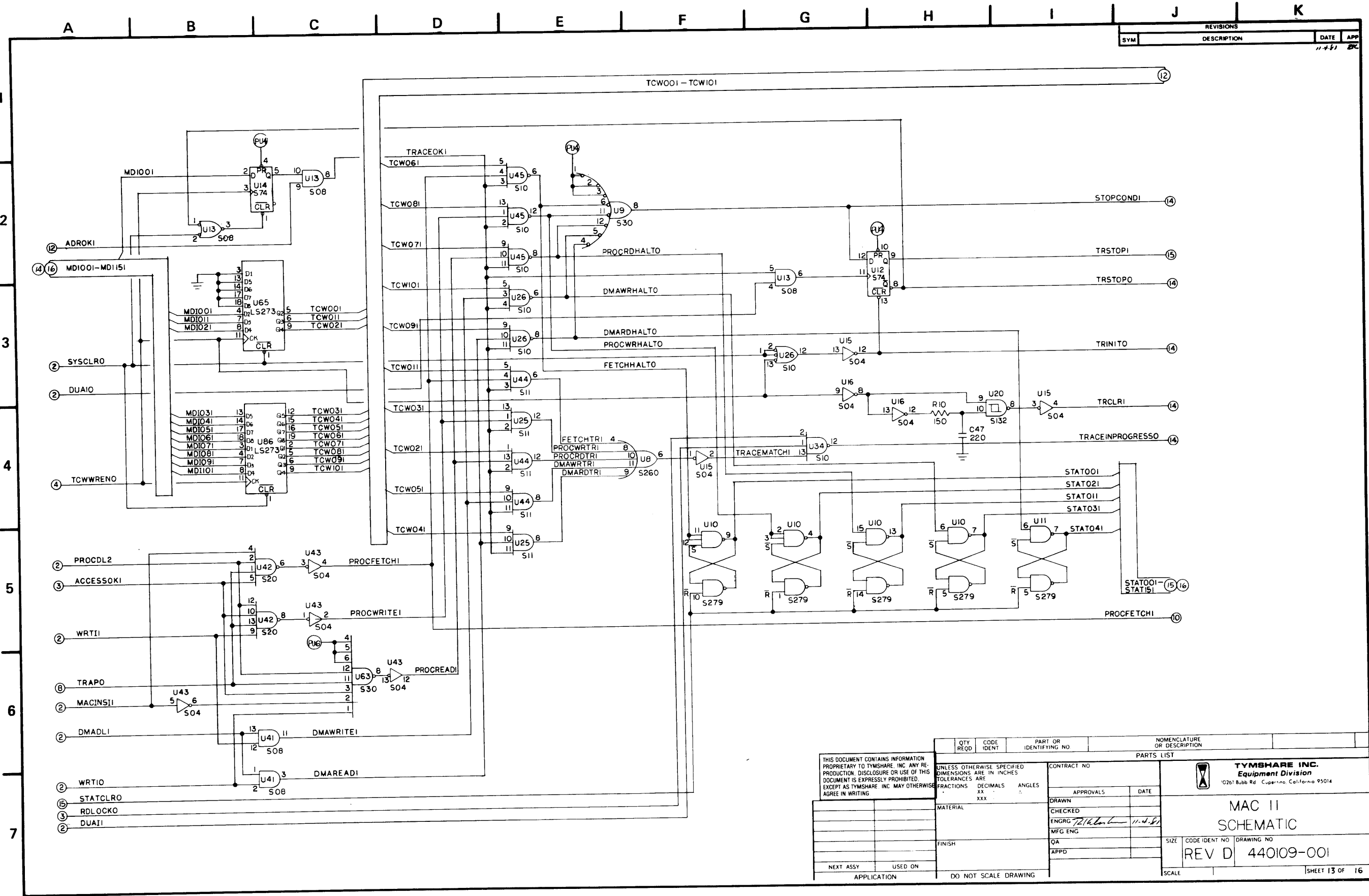
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	PARTS LIST			
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CONTRACT NO.	
	FRACTIONS	DECIMALS	ANGLES	
MATERIAL			APPROVALS	DATE
FINISH			DRAWN C. MC NEIL	8-18-51
			CHECKED	
			ENGRG <i>[Signature]</i>	11-4-51
			MFG ENG	
			QA	
			APPD	
NEXT ASSY	USED ON		SIZE	CODE IDENT NO
APPLICATION	DO NOT SCALE DRAWING		D	REV D
			DRAWING NO	140100-001
			SCALE	SHEET 12 OF 16

TYMSHARE INC.
Equipment Division
10261 Robb Rd. Cupertino, California 95014

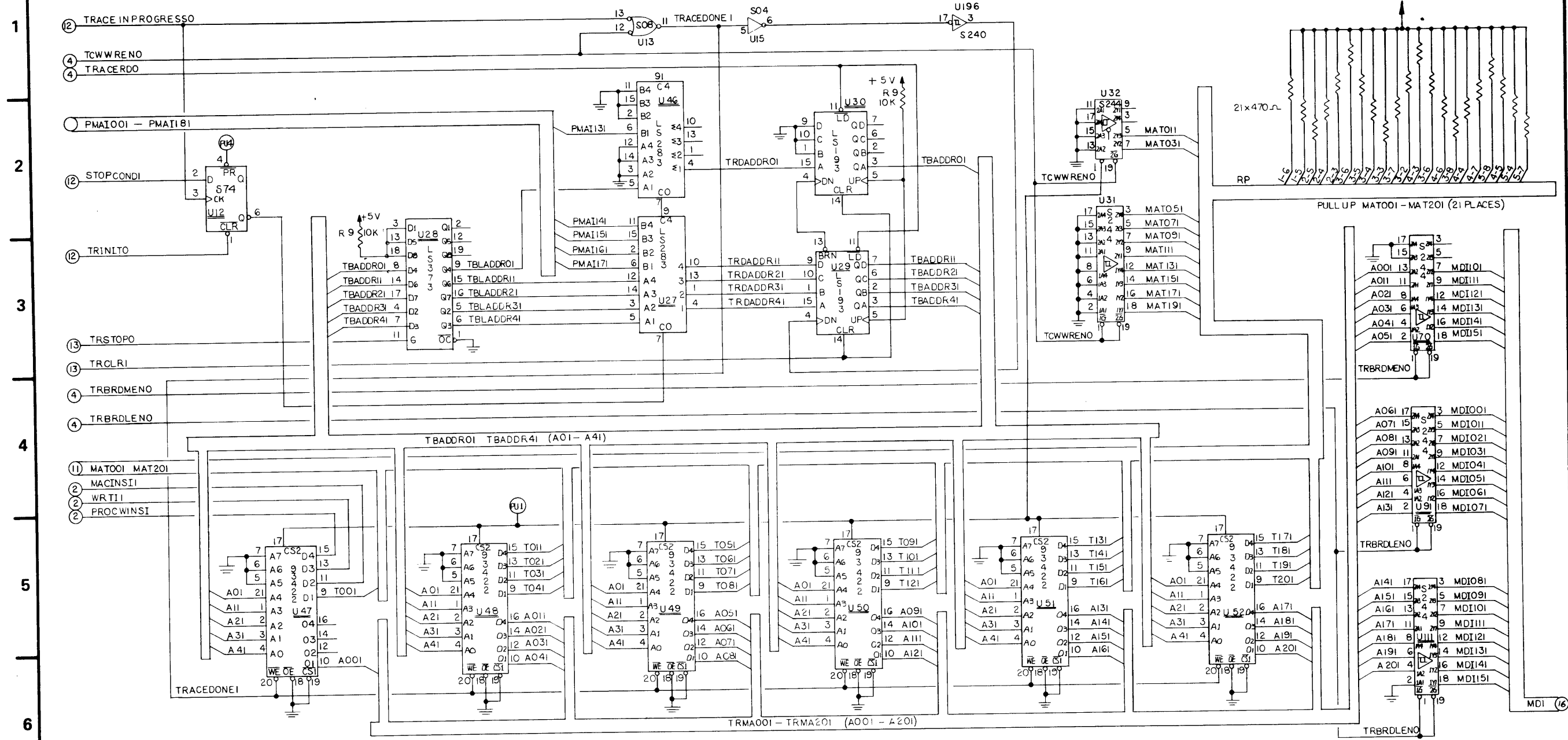
SCHEMATIC DIAGRAM
MAC II



REVISIONS		DATE	APP
SYM	DESCRIPTION	11-4-81	20

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MATERIAL		APPROVALS		DATE	
FINISH		DRAWN		ENGRG <i>[Signature]</i>	
NEXT ASSY		USED ON		MFG ENG	
APPLICATION		DO NOT SCALE DRAWING		QA	
				APPD	
				TYMSHARE INC. Equipment Division 10261 Bubb Rd. Cupertino, California 95014	
				MAC II SCHEMATIC	
SIZE		CODE IDENT NO		DRAWING NO	
REV D		440109-001			
SCALE				SHEET 13 OF 16	

REVISIONS		
SYM	DESCRIPTION	DATE
SEE SHT. I		11-14-81



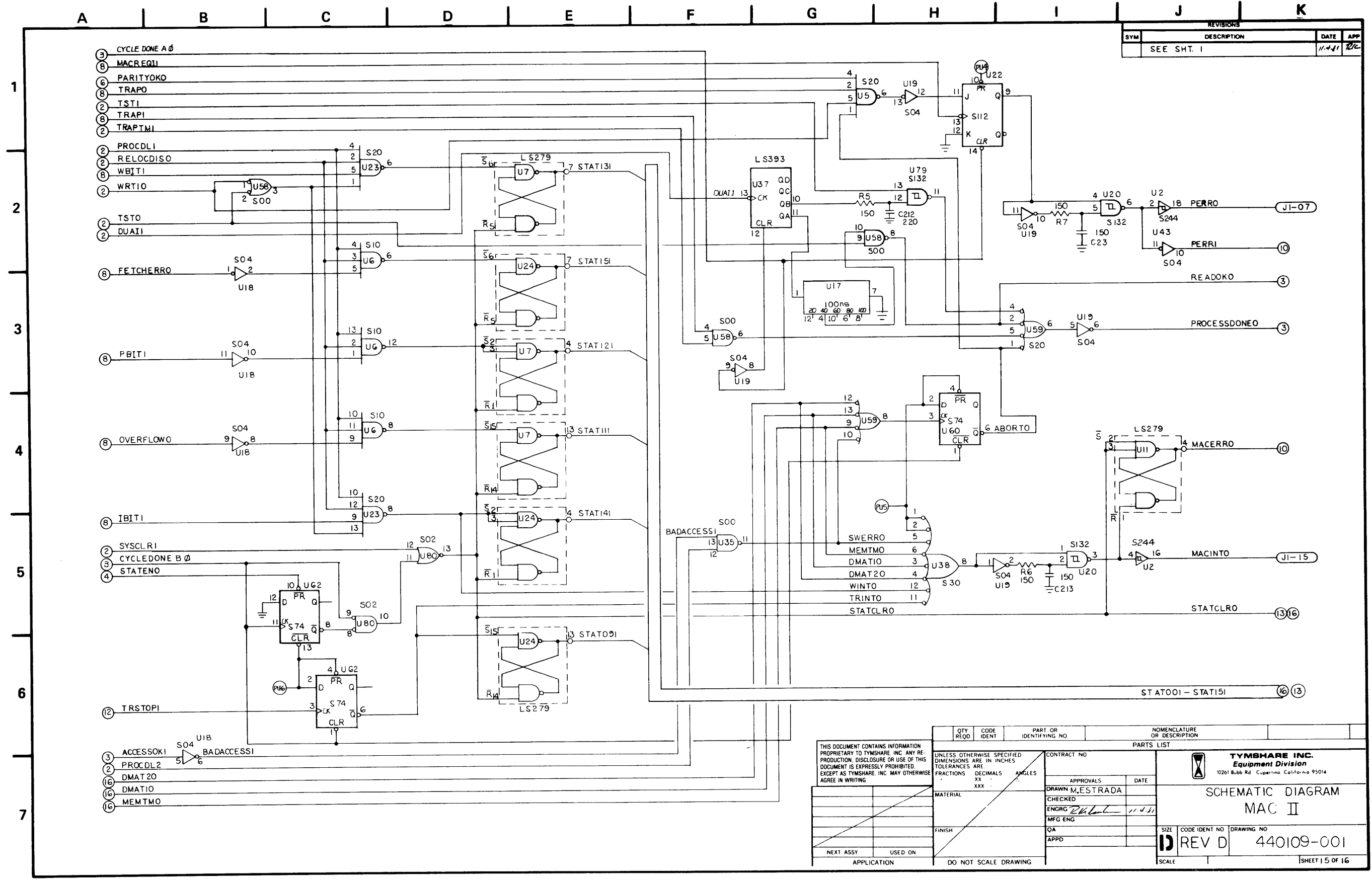
1
2
3
4
5
6
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QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE		CONTRACT NO.	
FRACTIONS	DECIMALS	APPROVALS	DATE
XX	XXX	DRAWN M. ESTRADA	8-24-81
MATERIAL		CHECKED	ENGRG J. M. L. 11-14-81
FINISH		MFG ENG	QA
NEXT ASSY		USED ON	APPD
APPLICATION		DO NOT SCALE DRAWING	SCALE

TYMSHARE INC.
Equipment Division
12611 Bubb Rd. Cupertino, California 95014

SCHEMATIC DIAGRAM
MAC II

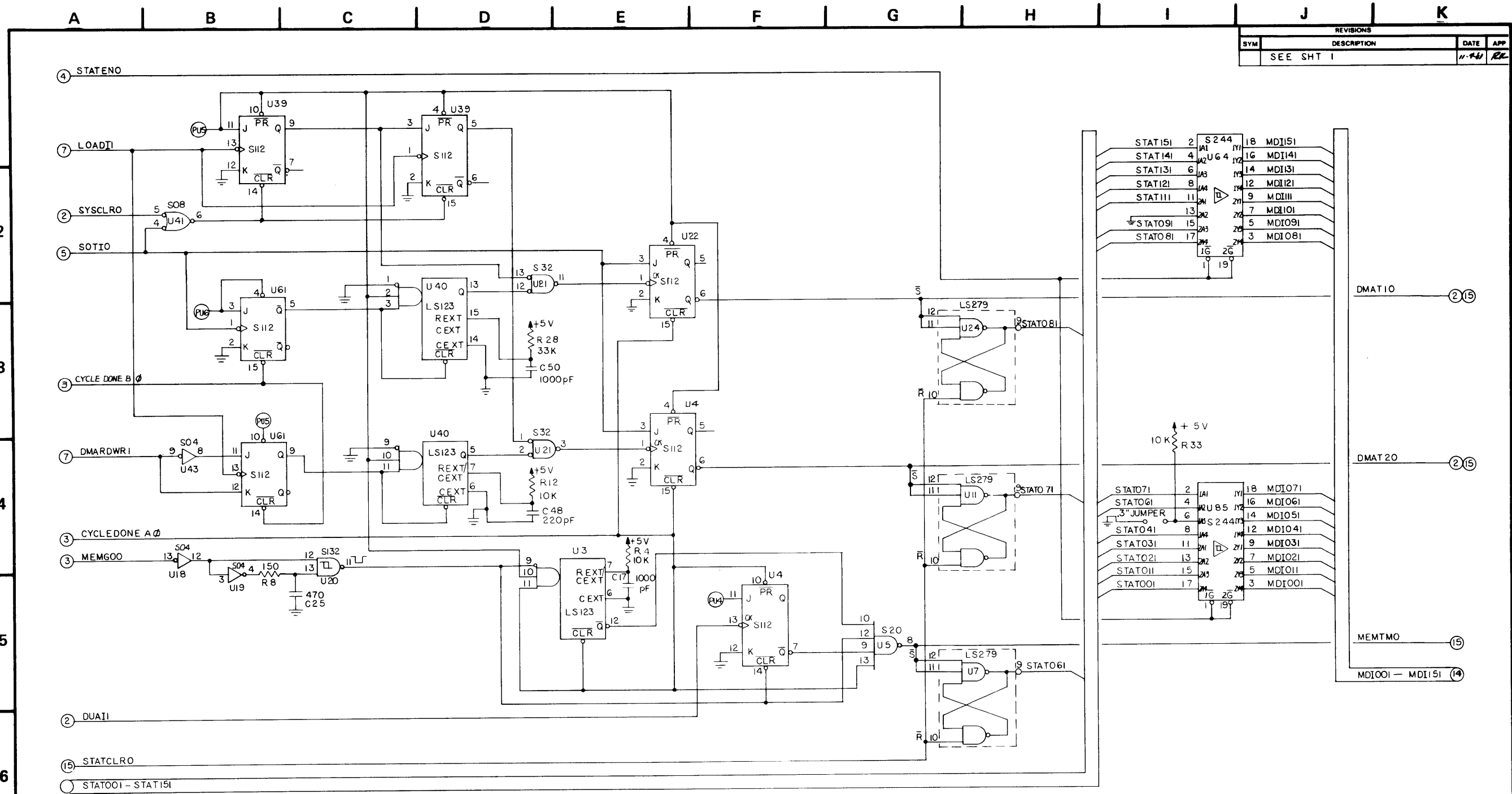
SIZE CODE IDENT NO DRAWING NO
REV D 440109-001



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHT. 1	11-4-71	RLC

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	MATERIAL FINISH NEXT ASSY USED ON APPLICATION	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES XXX XXX XXX	
DO NOT SCALE DRAWING		SIZE CODE IDENT NO DRAWING NO D REV D 440109-001	SCALE SHEET 15 OF 16

SCHMATIC DIAGRAM
MAC II



REVISIONS			
SYM	DESCRIPTION	DATE	APP
SEE SHT 1		11-4-81	RL

STAT151	2	S 244	18	MDI151
STAT141	4	U 64	16	MDI141
STAT131	6	U 3	14	MDI131
STAT121	8	U 4	12	MDI121
STAT111	11	U 1	9	MDI111
STAT091	15	U 2	7	MDI091
STAT081	17	U 3	5	MDI081
			3	MDI081

STAT071	2	U 1	18	MDI071
STAT061	4	U 85	16	MDI061
3" JUMPER	6	S 244	14	MDI051
STAT041	8	U 4	12	MDI041
STAT031	11	U 1	9	MDI031
STAT021	13	U 2	7	MDI021
STAT011	15	U 3	5	MDI011
STAT001	17	U 3	3	MDI001

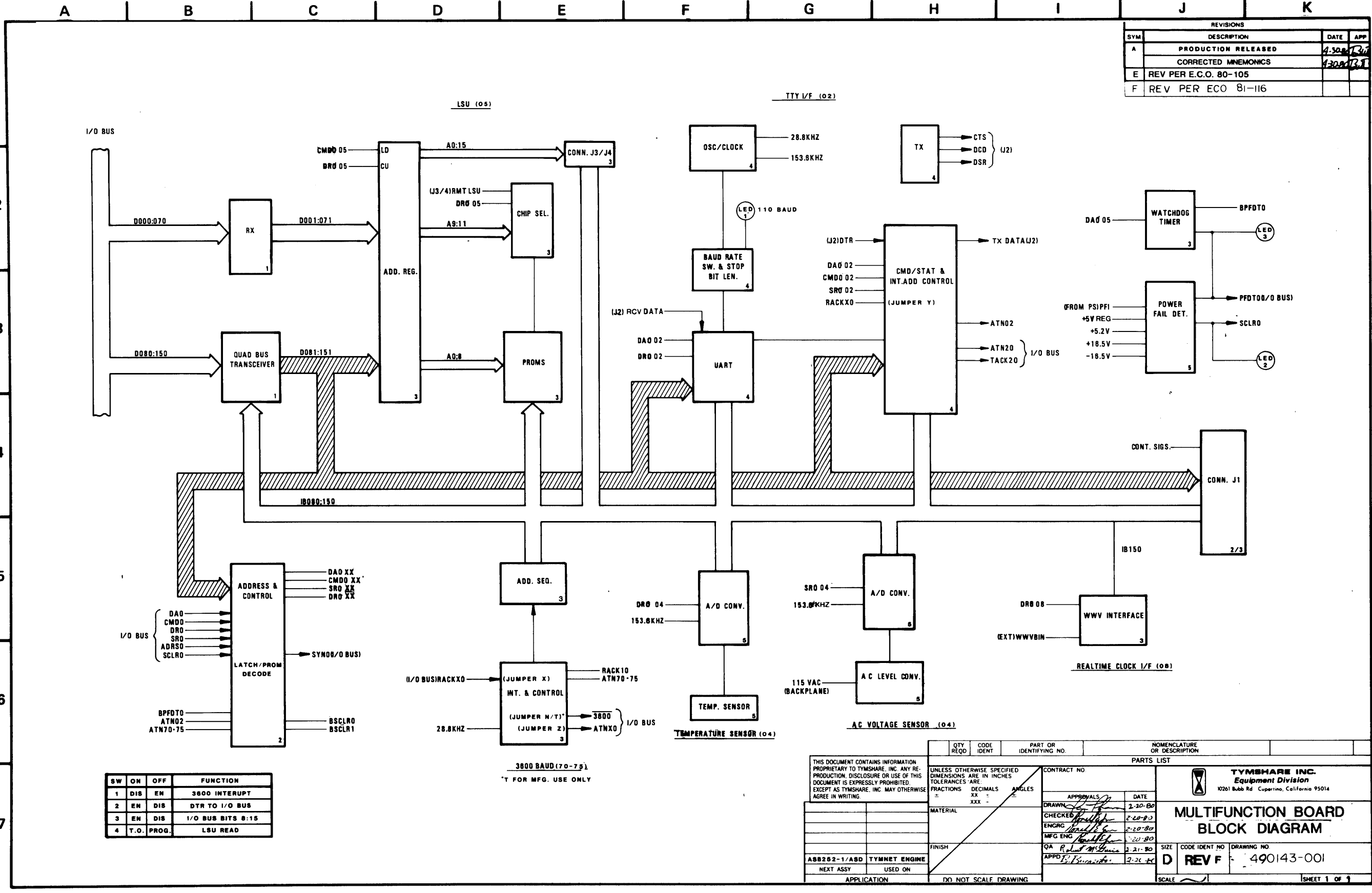
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	PARTS LIST			
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.	
	FRACTIONS	DECIMALS	ANGLES	APPROVALS
	XXX	XXX	DATE	
MATERIAL			DRAWN M. ESTRADA	8-19-81
FINISH			CHECKED	
			ENGRG <i>[Signature]</i>	11-4-81
			MFG ENG	
			QA	
			APPD	
NEXT ASSY	USED ON			SIZE CODE IDENT NO DRAWING NO
APPLICATION	DO NOT SCALE DRAWING			REV D 440109-001
				SCALE SHEET 16 OF 16

TYMSHARE INC.
Equipment Division
10261 Bubb Rd. Cupertino, California 95014

SCHEMATIC DIAGRAM
MAC II

REV D 440109-001

SHEET 16 OF 16



REVISIONS			
SYM	DESCRIPTION	DATE	APP
A	PRODUCTION RELEASED	4-30-80	RM
	CORRECTED MNEMONICS	4-30-80	RM
E	REV PER E.C.O. 80-105		
F	REV PER ECO 81-116		

SW	ON	OFF	FUNCTION
1	DIS	EN	3600 INTERRUPT
2	EN	DIS	DTR TO I/O BUS
3	EN	DIS	I/O BUS BITS 8:15
4	T.O.	PROG.	LSU READ

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

CONTRACT NO. _____

APPROVALS: _____ DATE: 2-20-80

DRAWN: _____ DATE: 2-20-80

CHECKED: _____ DATE: 2-20-80

ENGRG: _____ DATE: 2-20-80

MFG ENG: _____ DATE: 2-20-80

QA: _____ DATE: 2-21-80

APPD: _____ DATE: 2-26-80

ABB252-1/ASD TYMNET ENGINE

NEXT ASSY USED ON _____

APPLICATION _____ DO NOT SCALE DRAWING

PARTS LIST

TYMSHARE INC. Equipment Division 10261 Burb Rd. Cupertino, California 95014

MULTIFUNCTION BOARD BLOCK DIAGRAM

SIZE: D CODE IDENT NO: REV F DRAWING NO: 490143-001

SCALE: _____ SHEET 1 OF 1

119-0	SPO	②
219-0	ADRSO	②
120-0	DRD	②
220-0	CMDD	②
221-0	DAO	②
122-0	RACK 20	③④
123-0	SYND	②
223-0	ATN20	③
126-0	SRRD	②⑤

111-0	D000	⑥
211-0	D010	⑥
112-0	D020	②
212-0	D030	②
113-0	D040	⑤
213-0	D050	⑤
114-0	D060	⑤
214-0	D070	⑤
115-0	D080	⑤
215-0	D090	⑤
116-0	D100	⑤
216-0	D110	⑤
117-0	D120	⑤
217-0	D130	⑤
118-0	D140	⑤
218-0	D150	⑤

①	B080	⑤
②	B090	⑤
③	B100	⑤
④	B110	⑤
⑤	B120	⑤
⑥	B130	⑤
⑦	B140	⑤
⑧	B150	⑤

100-0	+5V	⑤
141-0	+5V	⑤
139-0	+16.5V	⑤
138-0	-16.5V	⑤
200-0	GND	⑤
101-0		⑤
201-0		⑤
140-0		⑤
240-0		⑤
241-0		⑤

DEVICE TABLE						
DEVICE TYPE	REF DES	GND	+5V	+5V REG	+12V REG	-12V REG
2A, 3J	74LS32	7	14			
3A, 8F	74LS123	8	16			
4A, 6A, 5C, 2K	74S74	7	14			
5A	7438	7	14			
7A	1489A	7	14			
5A	7492	10	5			
9A	5E, 5F, 5H, 5L	74193	8	16		
10A	14411	12, 23	22	24		
2B, 8B, 1C, 2C, 4F	74LS240		20			
5B	74LS10	7	14			
5B, 1K	74S00	-				
6B, 7B, 6C, 7C, 6D, 6E, 6F, 6H, 6F	6349	10	20			
9B	7486		14			
4C	1602	3, 4, 16	1, 34, 37, 38			2
8C	74S244	10	20			
9C	1488	2, 7, 9		14	1	
1D, 1E	26S11	8	16			
3D	74LS175	8	16			

DEVICE TABLE						
DEVICE TYPE	REF DES	GND	+5V	+5V REG	+12V REG	-12V REG
4D	74LS02	7	14			
5D	74LS08	7	14			
7DA, 7DB, 7EA, 7EB	1458				8	4
8D, 8E	5357	18		7, 10		8
2F, 3D, 2E, 9E, 3F	74LS244	10	20			
10D	6N137	5	8			
3E	7411	7	14			
4E	74S260	7	14			
9F, 9H	339	12			3	
1H	74S374	10	20			
2H	7421	7	14			
3H	74LS30	7	14			
7H	02CJ	4			2	
1J	7407	7	14			
2J	74LS04	7	14			
6J	74LS138	8	16			
3K	74S10	7	14			
1A, 4B	SPARE	10	20			
1B	SPARE	14	28			

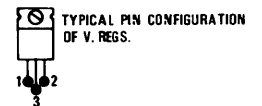
REVISIONS			
SYM	DESCRIPTION	DATE	APP
B	PRODUCTION RELEASE	12-11-79	AW
C	REV. PER E.C.O. 79-12, 13, 14, 19 & 22	12-20-79	AW
D	REV. PER E.C.O. 79-17, 18, 20, 37, 45 & 48	1-20-80	AW
E	REV. PER E.C.O. 80-105 & 81-23	6-9-81	AW
F	REV. PER E.C.O. 81-72	6/1/81	AW
G	REV. PER E.C.O. 81-116		
H	REV. PER E.C.O. 84-044A P.I.S.	8-9-84	AW

REFERENCE DESIGNATIONS		
LAST USED		NOT USED
R84	TP6	R6, 7, 12, 17-23
C60	SW3	
CR19	RN4	CR1-3
L3	Y1	
Q5	VR3	
J5		

- NOTES: UNLESS OTHERWISE SPECIFIED:
- RESISTORS ARE 25W, 5%, VALUES IN OHMS.
 - CAPACITOR VALUES ARE IN MICROFARADS.
 - DIODES ARE IN514.
- △ ONLY T.I. OR A.M.D. DEVICES CAN BE USED IN LOCATION 2F.

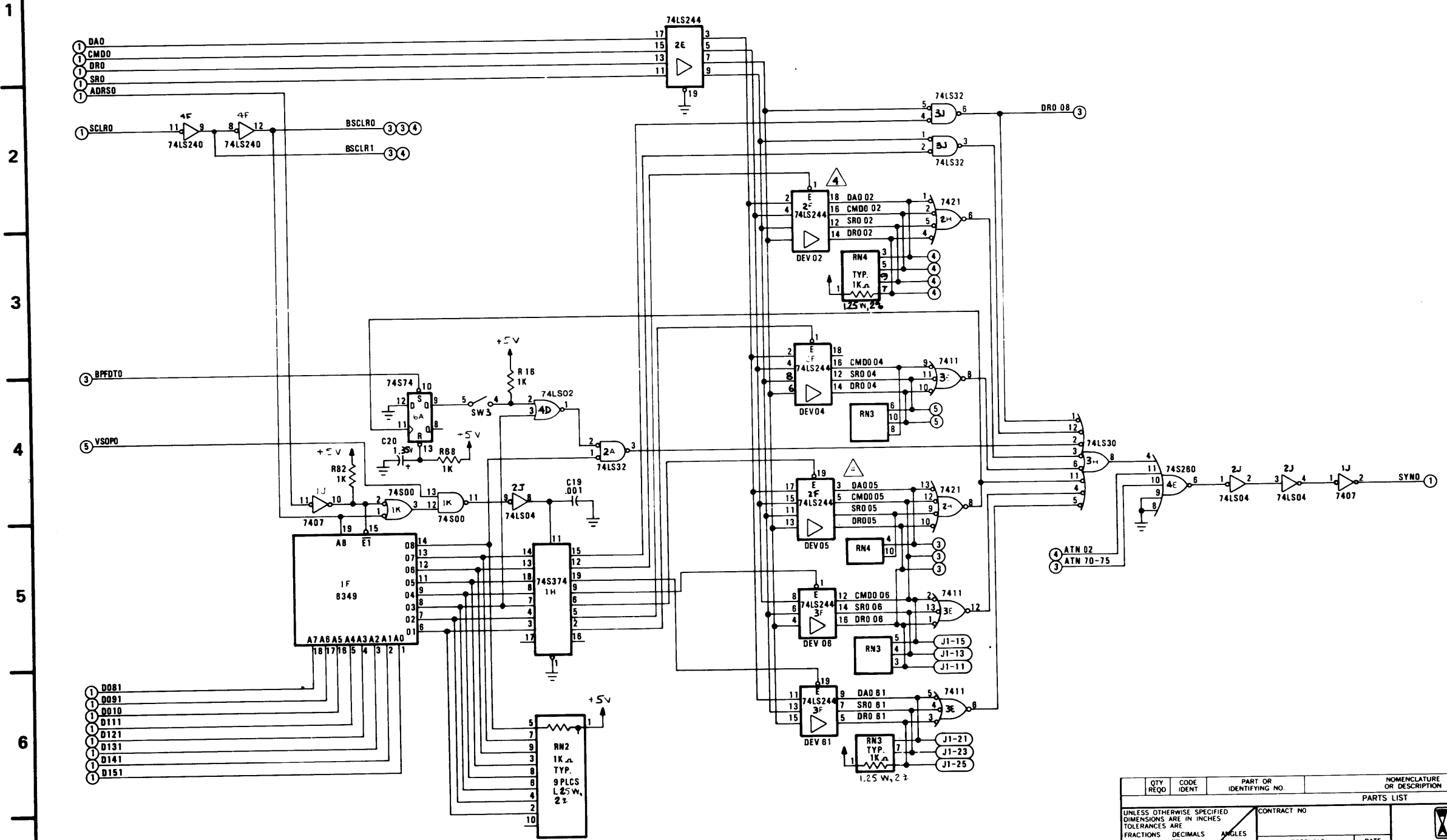
SEE SEPARATE B/M

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES		CONTRACT NO.	
MATERIAL		APPROVALS	DATE
FINISH		CHECKED	4-23-80
NEXT ASSY USED ON		ENGRG	
APPLICATION		MFG ENGR	
DO NOT SCALE DRAWING		QA	
		APPD	12-11-79
		TYMESHARE INC. NETWORK TECHNOLOGY DIVISION 10300 Bubb Rd. Cupertino, California 95014	
		TITLE SCHEMATIC MULTIFUNCTION BD.	
		SIZE	CODE IDENT NO
		D	440143-001
		SCALE	SHEET 1 OF 5

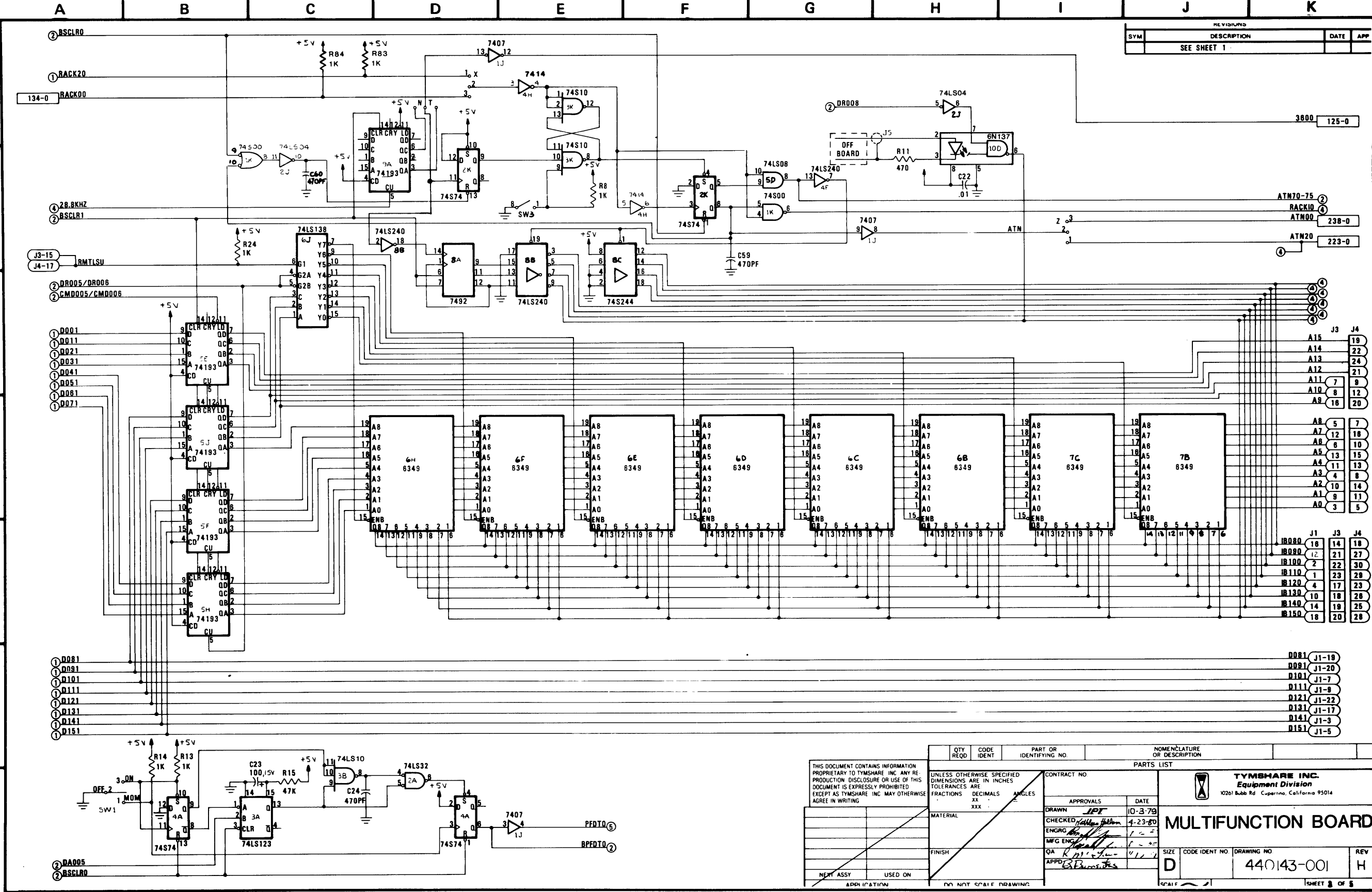
REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		



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PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES		CONTRACT NO	
MATERIAL		APPROVALS	
FINISH		DATE	
NEXT ASSY		DRAWN RICK DAVID 8-27-78	
USED ON		CHECKED H.M. H.M. 9-25-80	
APPLICATION		ENGRG. H.M. H.M. 10-1-80	
DO NOT SCALE DRAWING		MFG ENG. H.M. H.M. 11-1-80	
		QA K.M. H.M. 1-1-81	
		APPROV. J. Duran 12-11-79	

TYMSHARE INC. Equipment Division 10261 Burb Rd. Cupertino, California 95014		MULTIFUNCTION BOARD	
SIZE	CODE IDENT NO	DRAWING NO	REV
D		440143-001	H
SCALE 1		SHEET 2 OF 3	



REVISIONS		
SYM	DESCRIPTION	DATE
	SEE SHEET 1	

3800 125-0

ATN70-75
RACK10
ATN00 238-0
ATN20 223-0

J3-15
J4-17
BMTLSU

DR005/DR006
CMD005/CMD006

D001
D011
D021
D031
D041
D051
D061
D071

D081
D091
D101
D111
D121
D131
D141
D151

DA005
BSCLR0

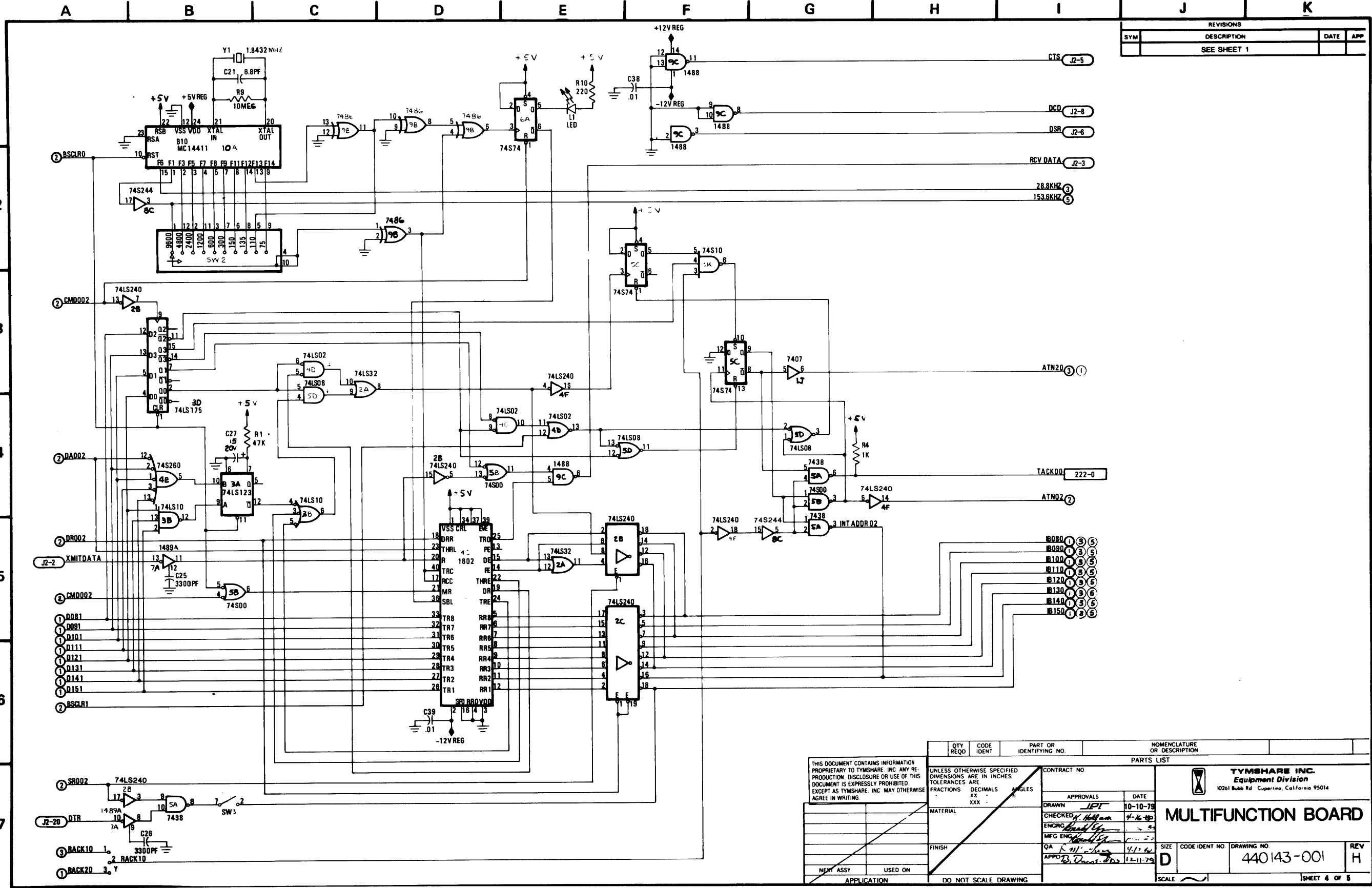
J3 J4
A15 19
A14 22
A13 24
A12 21
A11 7
A10 8
A9 12
A8 16
A7 20

A8 5
A7 12
A6 8
A5 10
A4 13
A3 15
A2 11
A1 13
A0 4
A9 8
A8 11
A7 14
A6 10
A5 11
A4 13
A3 15
A2 11
A1 13
A0 4

J1 J3 J4
IB080 18 14 18
IB090 12 21 27
IB100 2 22 30
IB110 1 23 29
IB120 4 17 23
IB130 10 18 26
IB140 14 18 25
IB150 18 20 28

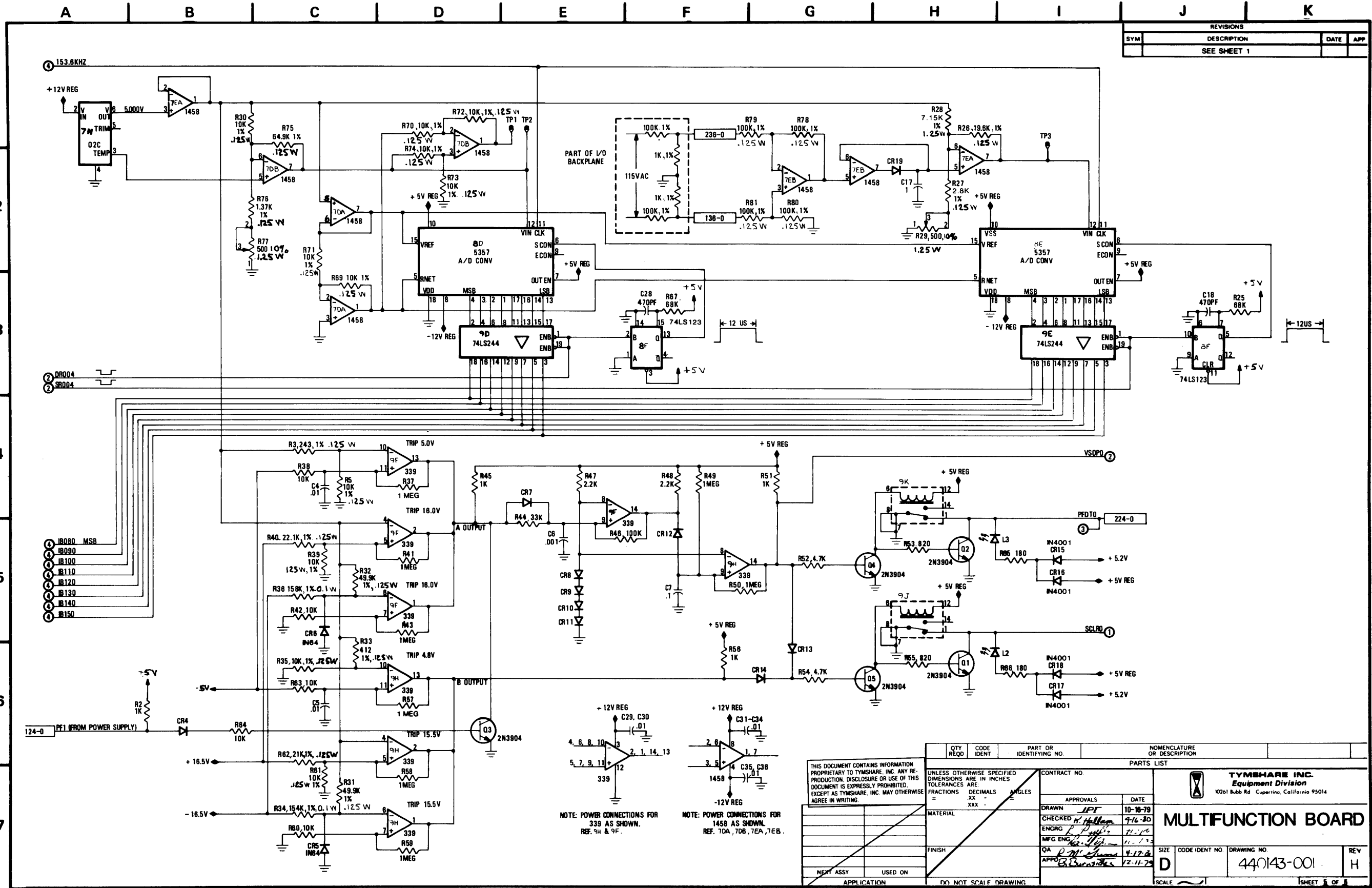
D081 J1-18
D091 J1-20
D101 J1-7
D111 J1-9
D121 J1-22
D131 J1-17
D141 J1-3
D151 J1-5

QTY	CODE	PART OR	NOMENCLATURE
REQD	IDENT	IDENTIFYING NO.	OR DESCRIPTION
PARTS LIST			
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CONTRACT NO.		APPROVALS	
		DRAWN <i>JPT</i> DATE 10-3-79	
		CHECKED <i>William Wilson</i> DATE 4-23-80	
		ENGRG <i>William Wilson</i>	
		MFG ENG <i>William Wilson</i>	
		QA <i>William Wilson</i>	
		APPRD <i>William Wilson</i>	
MATERIAL		FINISH	
NEXT ASSY		USED ON	
APPLICATION		DO NOT SCALE DRAWING	
SIZE	CODE IDENT NO	DRAWING NO	REV
D		440143-001	H
TYMSHARE INC. Equipment Division 10261 Huber Rd. Cupertino, California 95014			SHEET 3 OF 5



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

QTY REQD		CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
PARTS LIST				
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DRAWN		APPROVALS		DATE
CHECKED		ENGRG		
MFG ENG		QA		
APPD				
MATERIAL		FINISH		
NEXT ASSY		USED ON		
APPLICATION		DO NOT SCALE DRAWING		
TYMSHARE INC. Equipment Division 10201 Robb Rd. Cupertino, California 95014		DRAWN		DATE
MULTIFUNCTION BOARD		MFG ENG		
QA		APPD		
SIZE	CODE IDENT NO.	DRAWING NO.	REV	
D		440143-001	H	
SCALE			SHEET 4 OF 5	



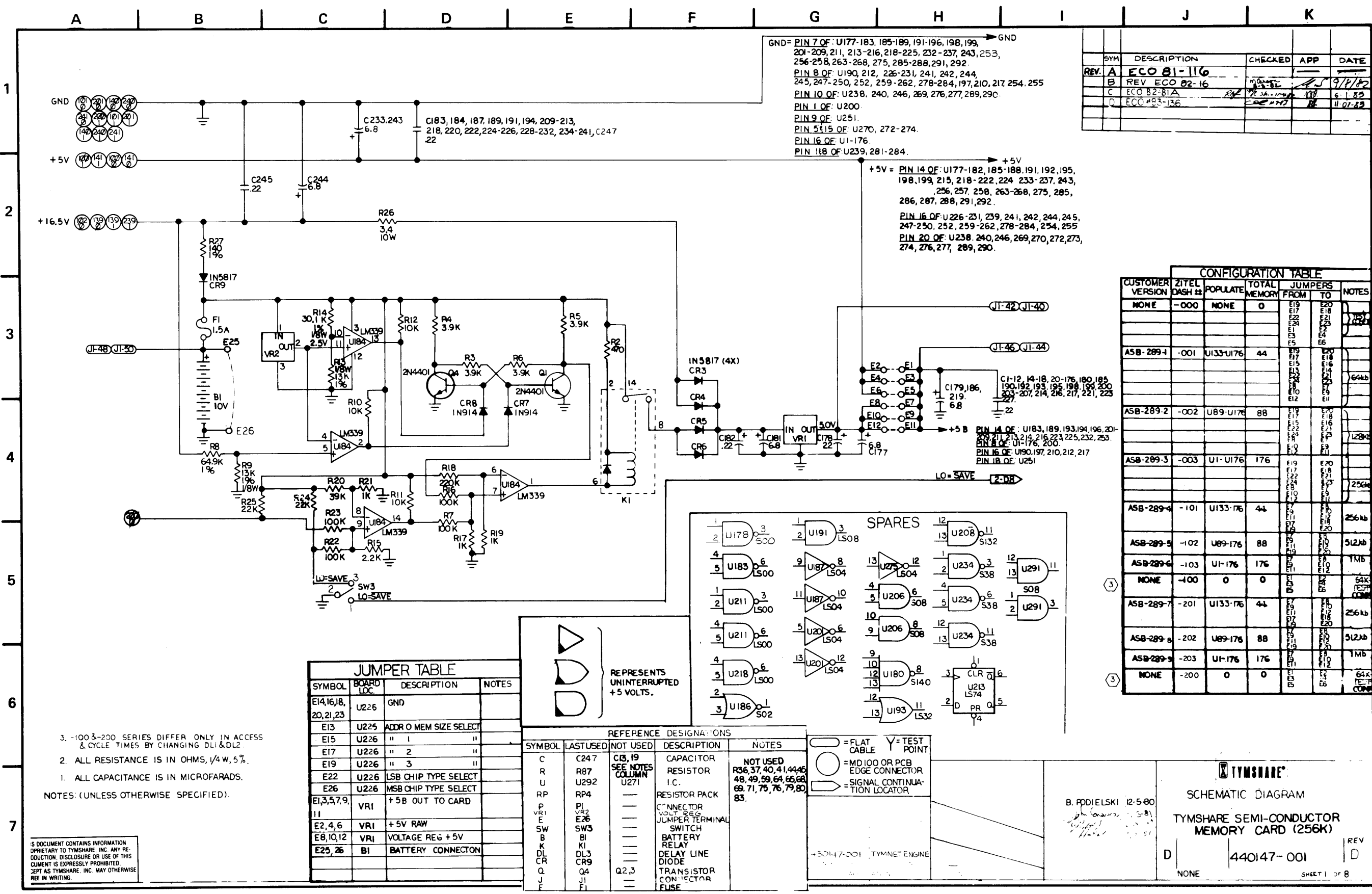
REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

- ① DR004
- ② SR004
- ③ B080 MSB
- ④ B090
- ⑤ B100
- ⑥ B110
- ⑦ B120
- ⑧ B130
- ⑨ B140
- ⑩ B150

NOTE: POWER CONNECTIONS FOR 339 AS SHOWN. REF. 9H & 9F.

NOTE: POWER CONNECTIONS FOR 1458 AS SHOWN. REF. 70A, 70B, 70E, 70E.

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	MATERIAL FINISH	PARTS LIST UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES = XX .XXX °	
NEXT ASSY USED ON APPLICATION	DO NOT SCALE DRAWING	DATE: 10-10-78 DATE: 9-16-80 DATE: 11-1-80 DATE: 4-17-81 DATE: 12-11-79	MULTIFUNCTION BOARD SIZE: D CODE IDENT NO.: 440143-001 DRAWING NO.: REV: H SHEET 5 OF 8



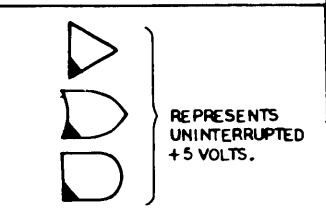
GND= PIN 7 OF: U177-183, 185-189, 191-196, 198, 199, 201-209, 211, 213-216, 218-225, 232-237, 243, 253, 256-258, 263-268, 275, 285-288, 291, 292.
 PIN 8 OF: U190, 212, 226-231, 241, 242, 244, 245, 247-250, 252, 259-262, 278-284, 197, 210, 217, 254, 255.
 PIN 10 OF: U238, 240, 246, 269, 276, 277, 289, 290.
 PIN 1 OF: U200.
 PIN 9 OF: U251.
 PIN 5 & 15 OF: U270, 272-274.
 PIN 16 OF: U1-176.
 PIN 18 OF: U239, 281-284.

+5V = PIN 14 OF: U177-182, 185-188, 191, 192, 195, 198, 199, 215, 218-222, 224, 233-237, 243, 256, 257, 258, 263-268, 275, 285, 286, 287, 288, 291, 292.
 PIN 16 OF: U226-231, 239, 241, 242, 244, 245, 247-250, 252, 259-262, 278-284, 254, 255.
 PIN 20 OF: U238, 240, 246, 269, 270, 272, 273, 274, 276, 277, 289, 290.

SYM	DESCRIPTION	CHECKED	APP	DATE
REV. A	ECO 81-116			9/1/82
B	REV. ECO 82-16			6-1-83
C	ECO 82-81A			11-01-83
D	ECO 83-136			

CUSTOMER VERSION	ZITEL DASH #	POPULATE	TOTAL MEMORY	JUMPERS FROM	JUMPERS TO	NOTES
NONE	-000	NONE	0	E19	E20	
ASB-289-1	-001	U133-U176	44	E17	E18	
ASB-289-2	-002	U89-U176	88	E15	E16	64kb
ASB-289-3	-003	U1-U176	176	E10	E11	128kb
ASB-289-4	-101	U133-176	44	E17	E18	256kb
ASB-289-5	-102	U89-176	88	E15	E16	512kb
ASB-289-6	-103	U1-176	176	E10	E11	1Mb
NONE	-100	0	0	E15	E16	64K TEST CODE
ASB-289-7	-201	U133-176	44	E17	E18	256kb
ASB-289-8	-202	U89-176	88	E15	E16	512kb
ASB-289-9	-203	U1-176	176	E10	E11	1Mb
NONE	-200	0	0	E15	E16	64K TEST CODE

SYMBOL	BOARD LOC.	DESCRIPTION	NOTES
E14,16,18, 20,21,23	U226	GND	
E13	U225	ADDR 0 MEM SIZE SELECT	
E15	U226	" 1	"
E17	U226	" 2	"
E19	U226	" 3	"
E22	U226	LSB CHIP TYPE SELECT	
E26	U226	MSB CHIP TYPE SELECT	
E1,3,5,7,9, 11	VRI	+5V OUT TO CARD	
E2,4,6	VRI	+5V RAW	
E8,10,12	VRI	VOLTAGE REG +5V	
E25, 26	BI	BATTERY CONNECTOR	



REFERENCE DESIGNATIONS			
SYMBOL	LAST USED	NOT USED	DESCRIPTION
C	C247	C13, 19	CAPACITOR
R	R87	SEE NOTES	RESISTOR
U	U292	U271	IC
RP	RP4	---	RESISTOR PACK
P	P1	---	CONNECTOR
VR1	VR2	---	VOLT REG
E	E26	---	JUMPER TERMINAL
SW	SW3	---	SWITCH
B	BI	---	BATTERY
K	K1	---	RELAY
DL	DL3	---	DELAY LINE
CR	CR9	---	DIODE
Q	Q4	Q2,3	TRANSISTOR
J	J1	---	CONNECTOR
F	F1	---	FUSE

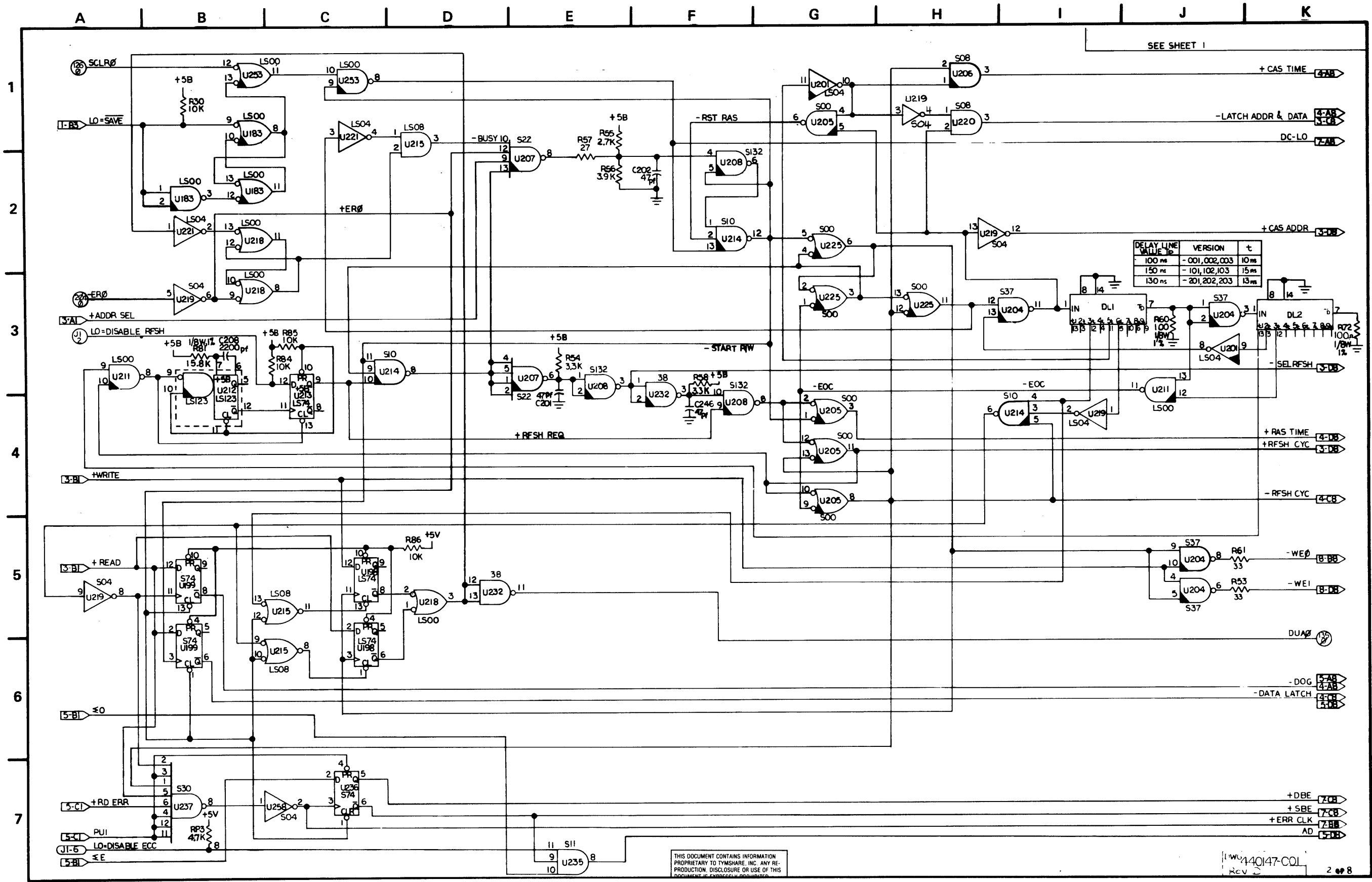
3. -100 & -200 SERIES DIFFER ONLY IN ACCESS & CYCLE TIMES BY CHANGING DL1 & DL2.
 2. ALL RESISTANCE IS IN OHMS, 1/4 W, 5%.
 1. ALL CAPACITANCE IS IN MICROFARADS.
 NOTES: (UNLESS OTHERWISE SPECIFIED).

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○ = FLAT CABLE
 ○ = MD100 OR PCB EDGE CONNECTOR
 ○ = SIGNAL CONTINUATION LOCATOR

B. FODIELSKI 12-5-80

TYMSHARE
 SCHEMATIC DIAGRAM
 TYMSHARE SEMI-CONDUCTOR MEMORY CARD (256K)
 440147-001
 SHEET 1 OF 8

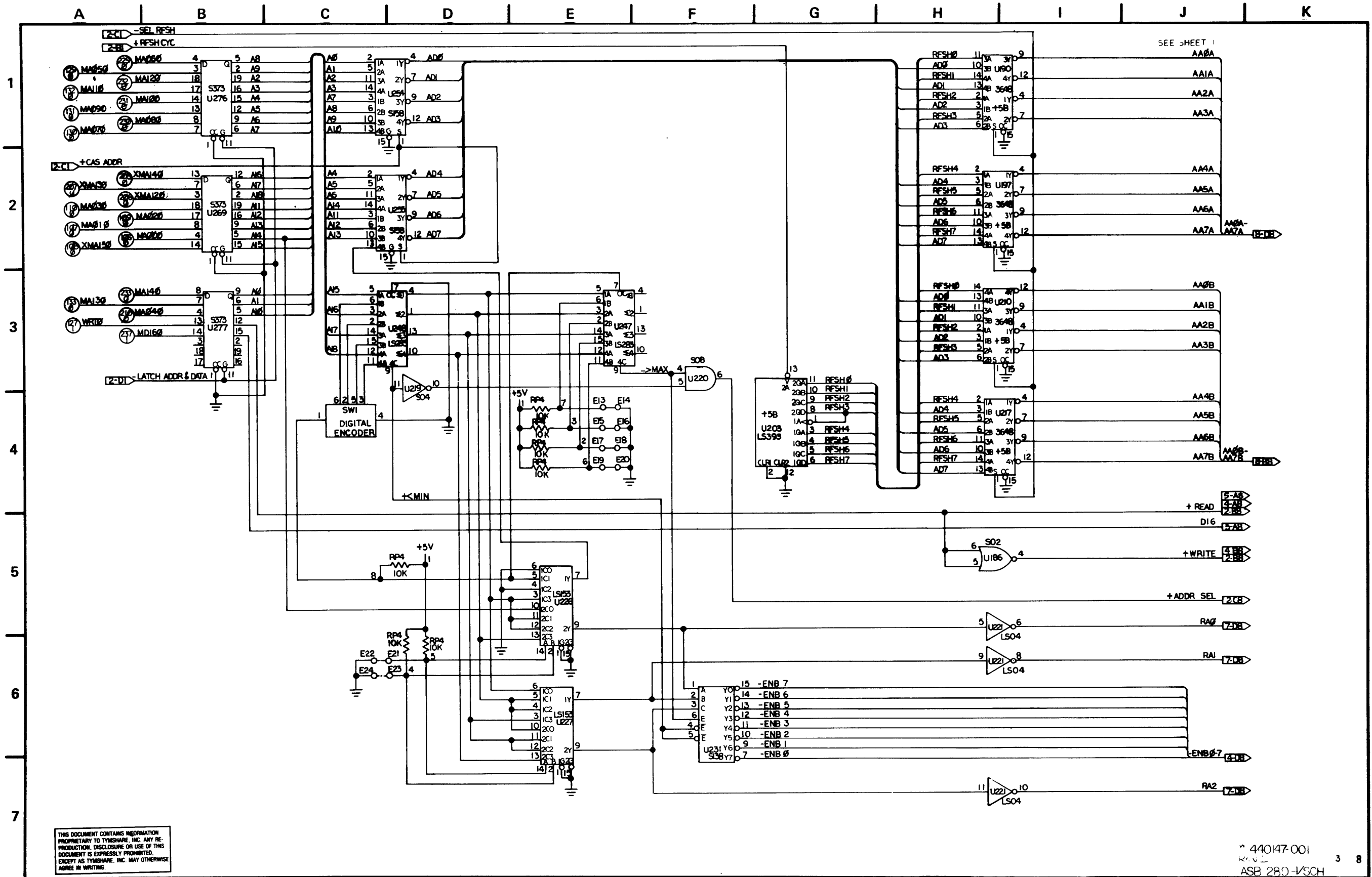


SEE SHEET 1

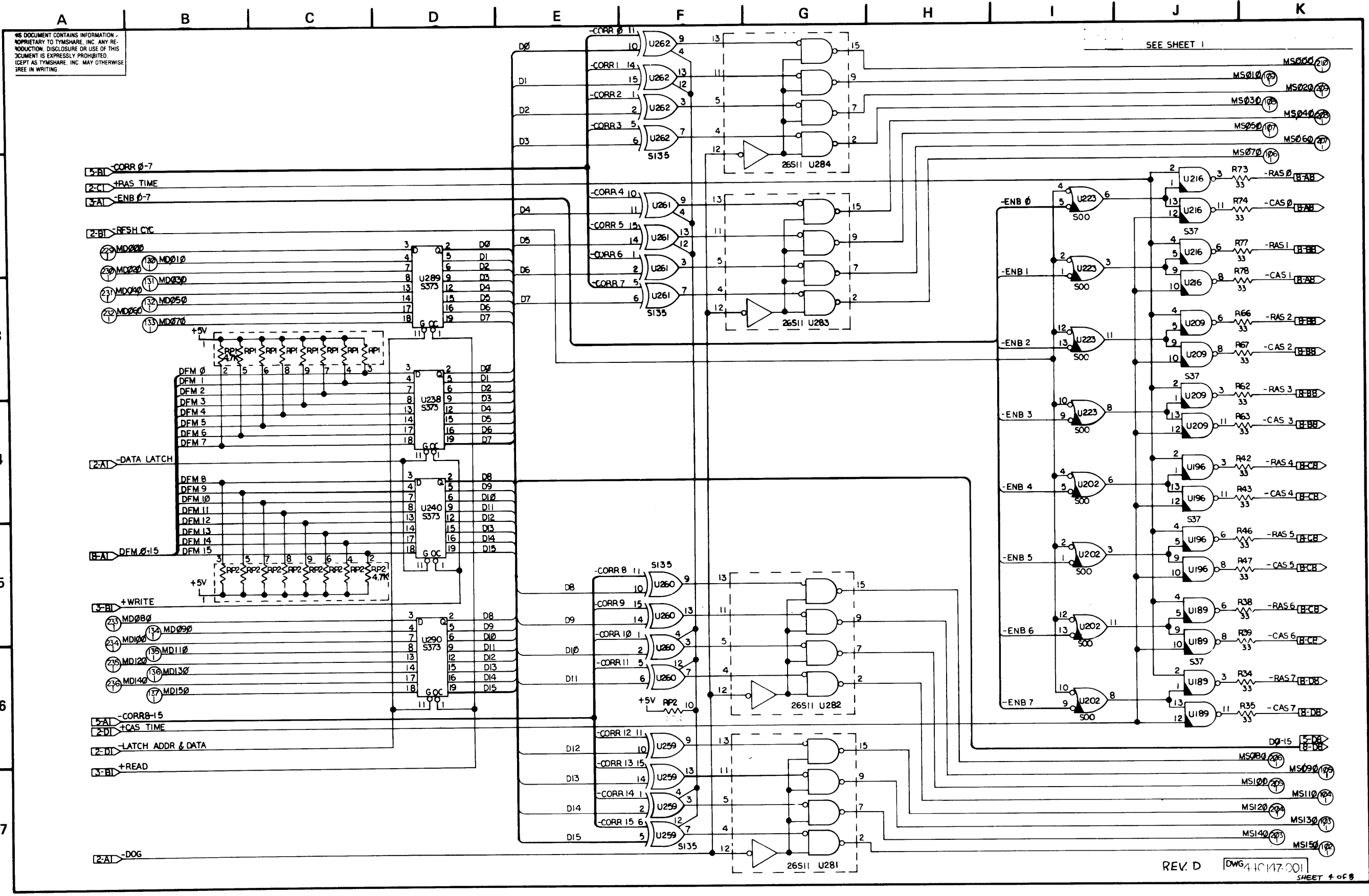
DELAY LINE VALUE	VERSION	t
100 ns	- 001, 002, 003	10 ms
150 ns	- 101, 102, 103	15 ms
130 ns	- 201, 202, 203	13 ms

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1WU440147-COL
REV 2 2 of 8

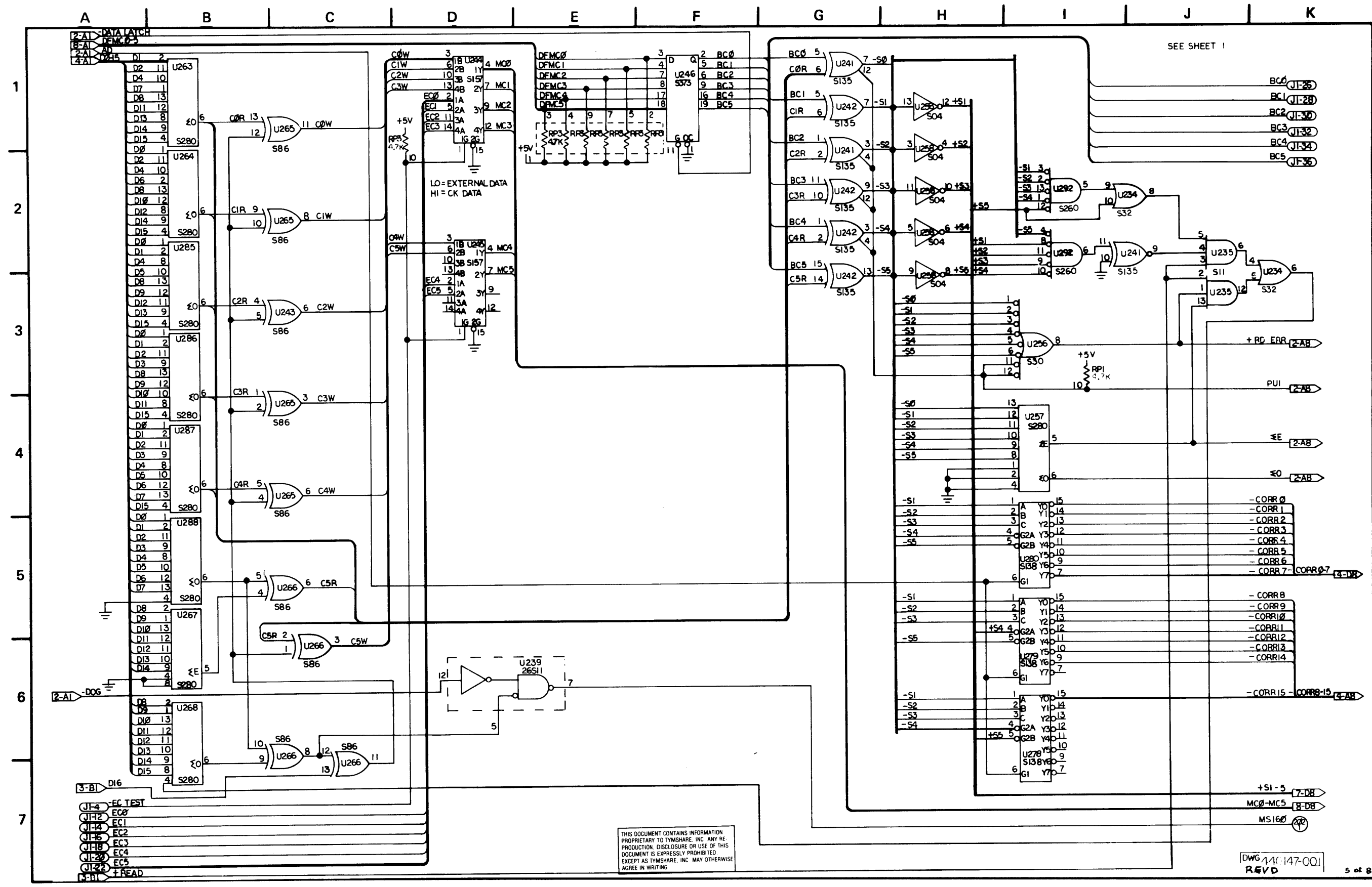


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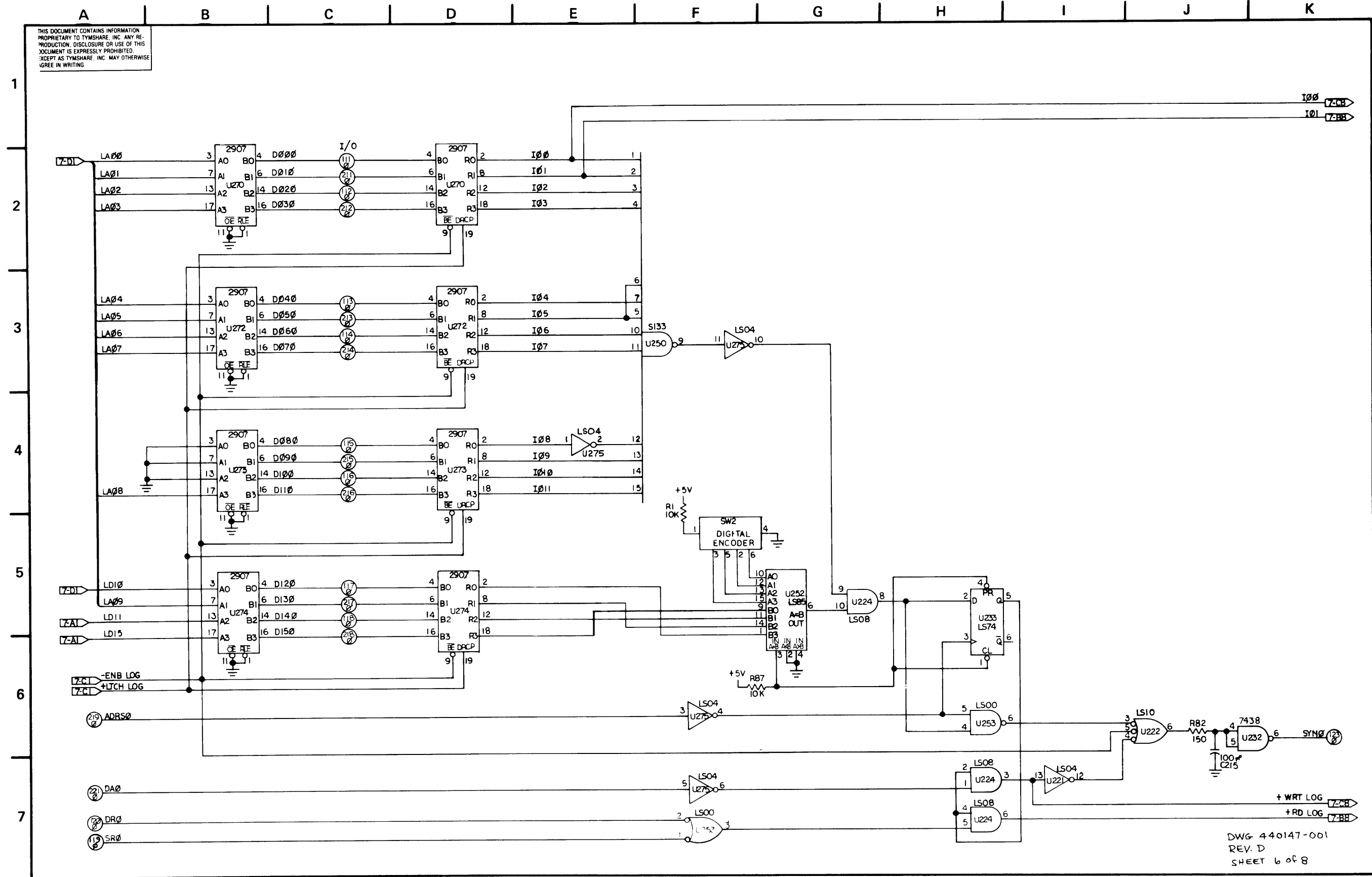
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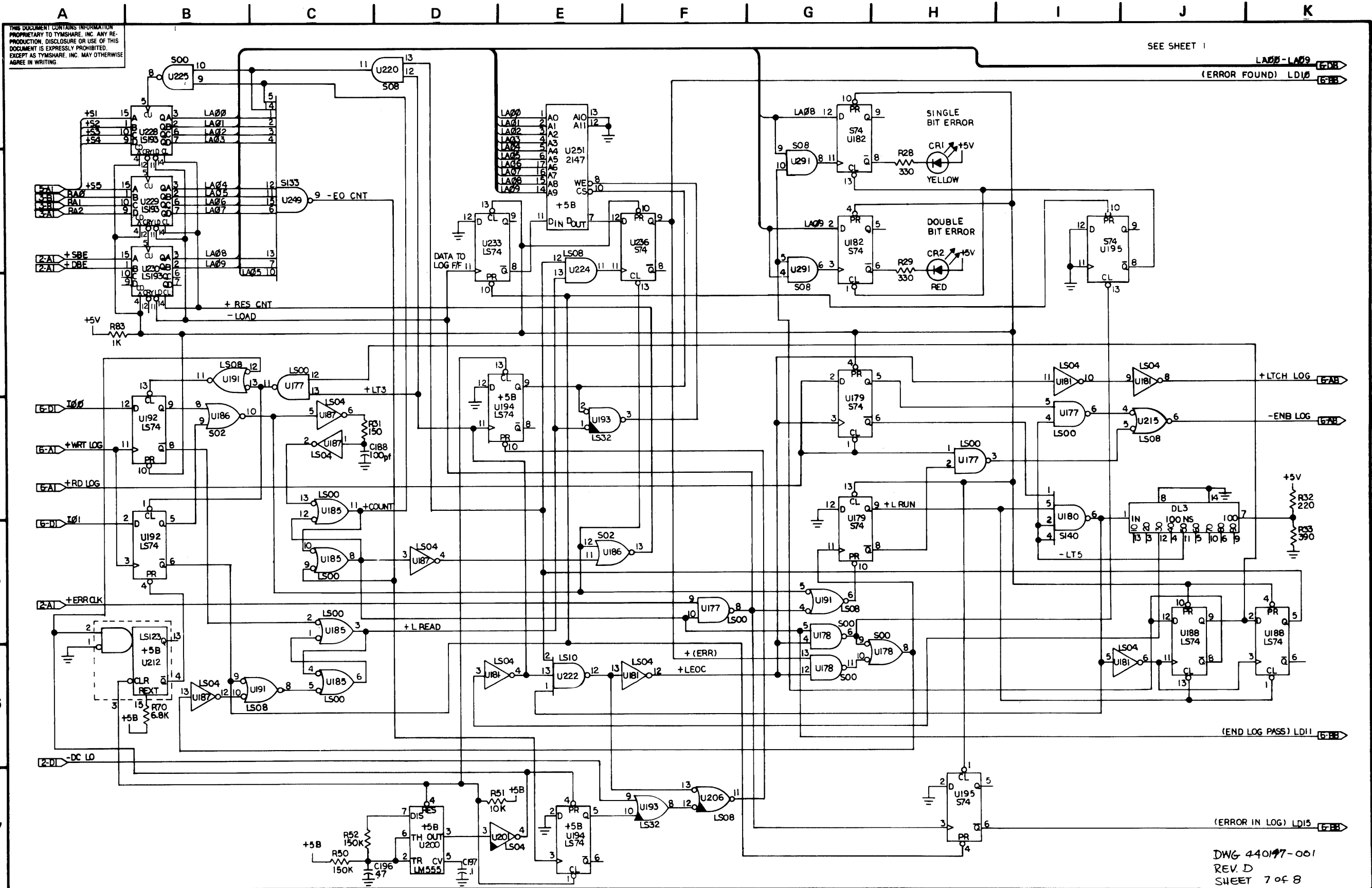


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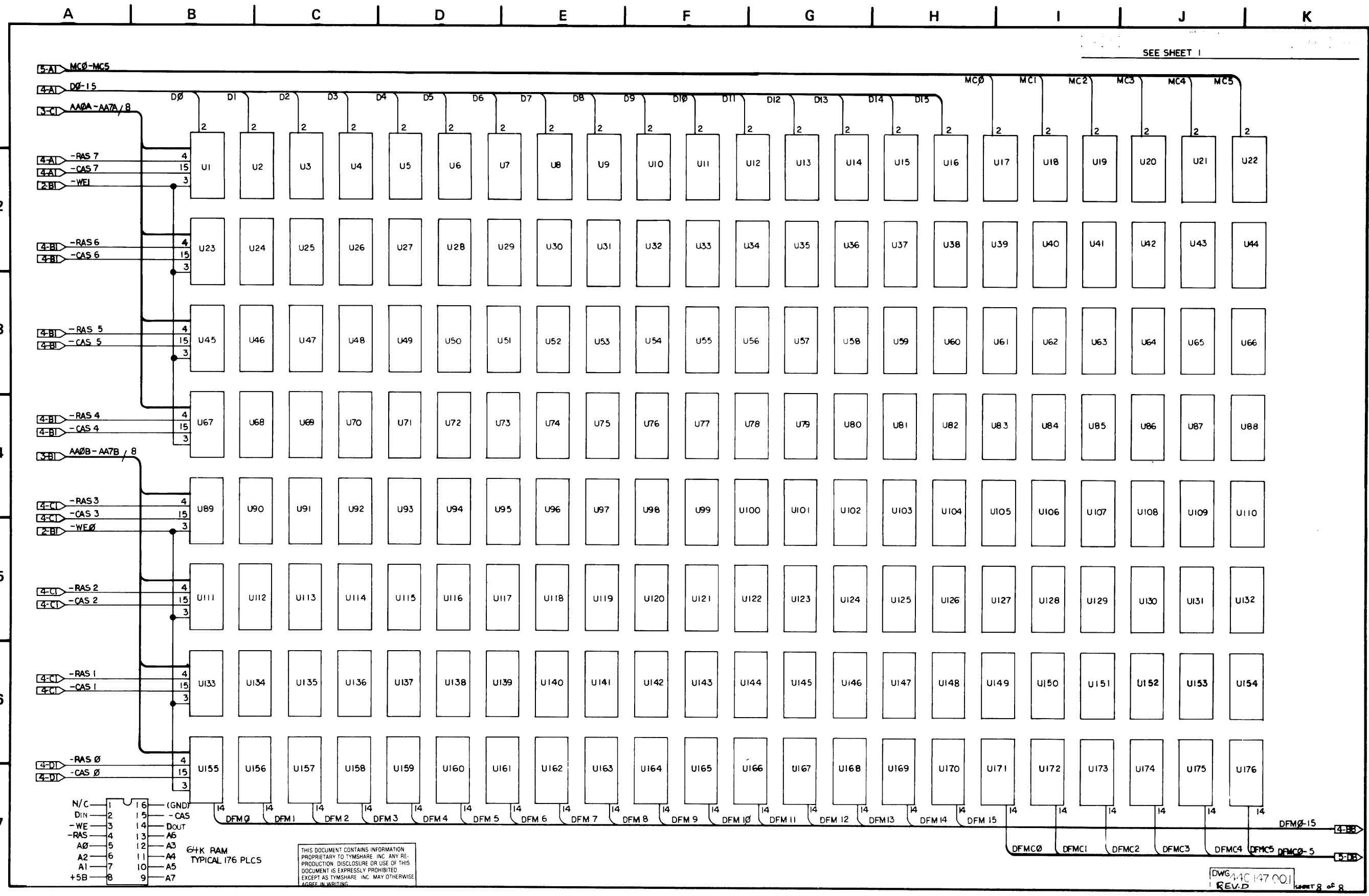
DWG 110-147-001
R4VD
5 of 8

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DWG 440197-001
REV. D
SHEET 7 of 8



5-A1 MC0-MC5

4-A1 D0-15

3-C1 AA0A-AA7A/8

4-A1 -RAS 7

4-A1 -CAS 7

2-B1 -WE1

4-B1 -RAS 6

4-B1 -CAS 6

4-B1 -RAS 5

4-B1 -CAS 5

4-B1 -RAS 4

4-B1 -CAS 4

3-B1 AA0B-AA7B/8

4-C1 -RAS 3

4-C1 -CAS 3

2-B1 -WE0

4-C1 -RAS 2

4-C1 -CAS 2

4-C1 -RAS 1

4-C1 -CAS 1

4-D1 -RAS 0

4-D1 -CAS 0

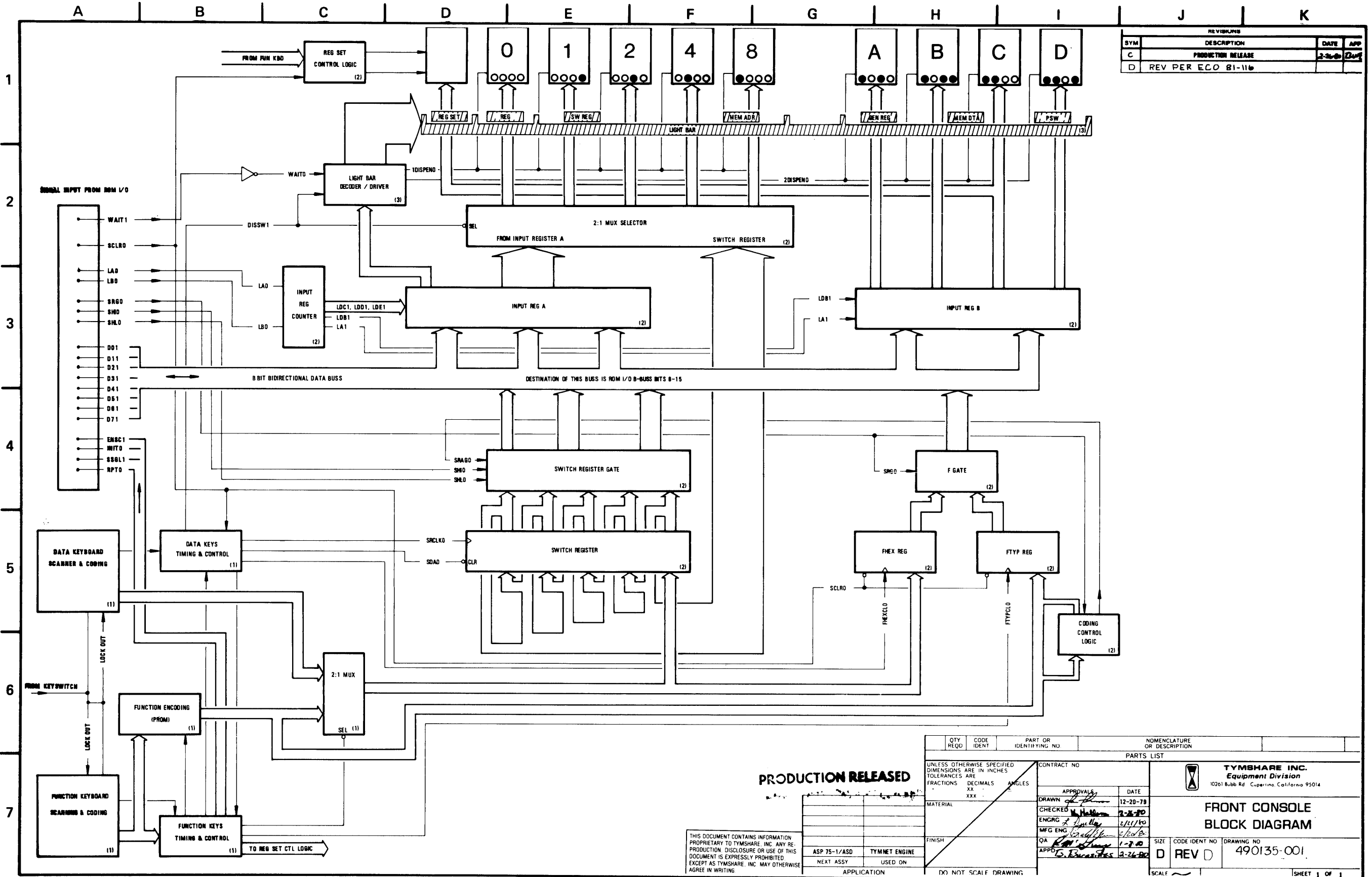
N/C	1	16	(GND)
DIN	2	15	-CAS
-WE	3	14	DOUT
-RAS	4	13	A6
A0	5	12	A3
A2	6	11	A4
A1	7	10	A5
+5B	8	9	A7

64K RAM
TYPICAL 176 PLCS

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DWG 440 147 001
REV. D

SHEET 8 of 8



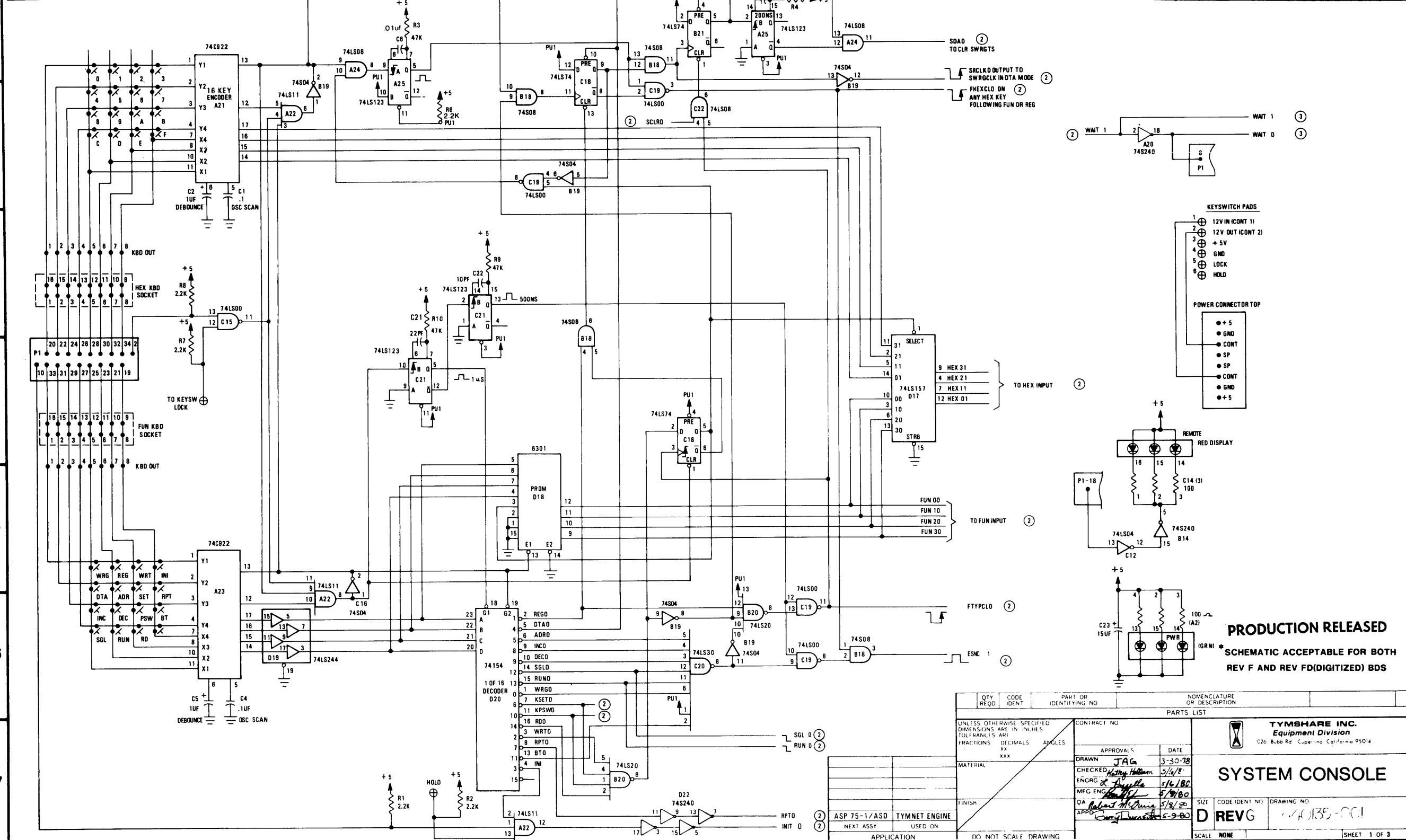
REVISIONS			
SYM	DESCRIPTION	DATE	APP
C	PRODUCTION RELEASE	2-2-79	DW
D	REV PER ECO 81-116		

PRODUCTION RELEASED

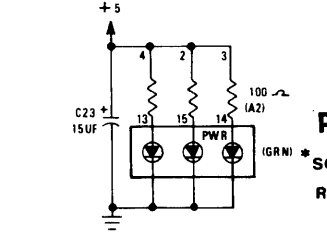
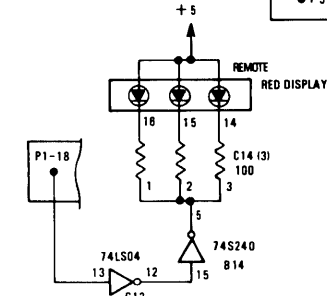
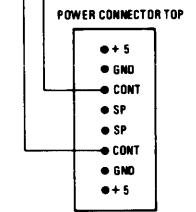
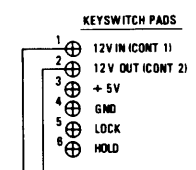
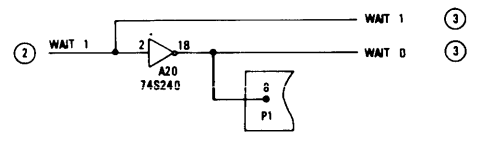
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QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX .XXX .XXX			
MATERIAL		CONTRACT NO	
FINISH		APPROVALS DATE	
NEXT ASSY USED ON		DRAWN <i>[Signature]</i> 12-20-78	
APPLICATION		CHECKED <i>[Signature]</i> 2-2-79	
		ENGRG <i>[Signature]</i> 2/11/79	
		MFG ENG <i>[Signature]</i> 2/20/79	
		QA <i>[Signature]</i> 1-27-79	
		APPD <i>[Signature]</i> 2-26-79	
		10261 Robb Rd. Cupertino, California 95014	
		FRONT CONSOLE BLOCK DIAGRAM	
SIZE	CODE IDENT NO	DRAWING NO	
D	REV D	490135-001	
SCALE		SHEET OF	

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SYM	DESCRIPTION	DATE	APP
F	PRODUCTION RELEASE	5-9-80	
G	REV PER ECO 81-116		

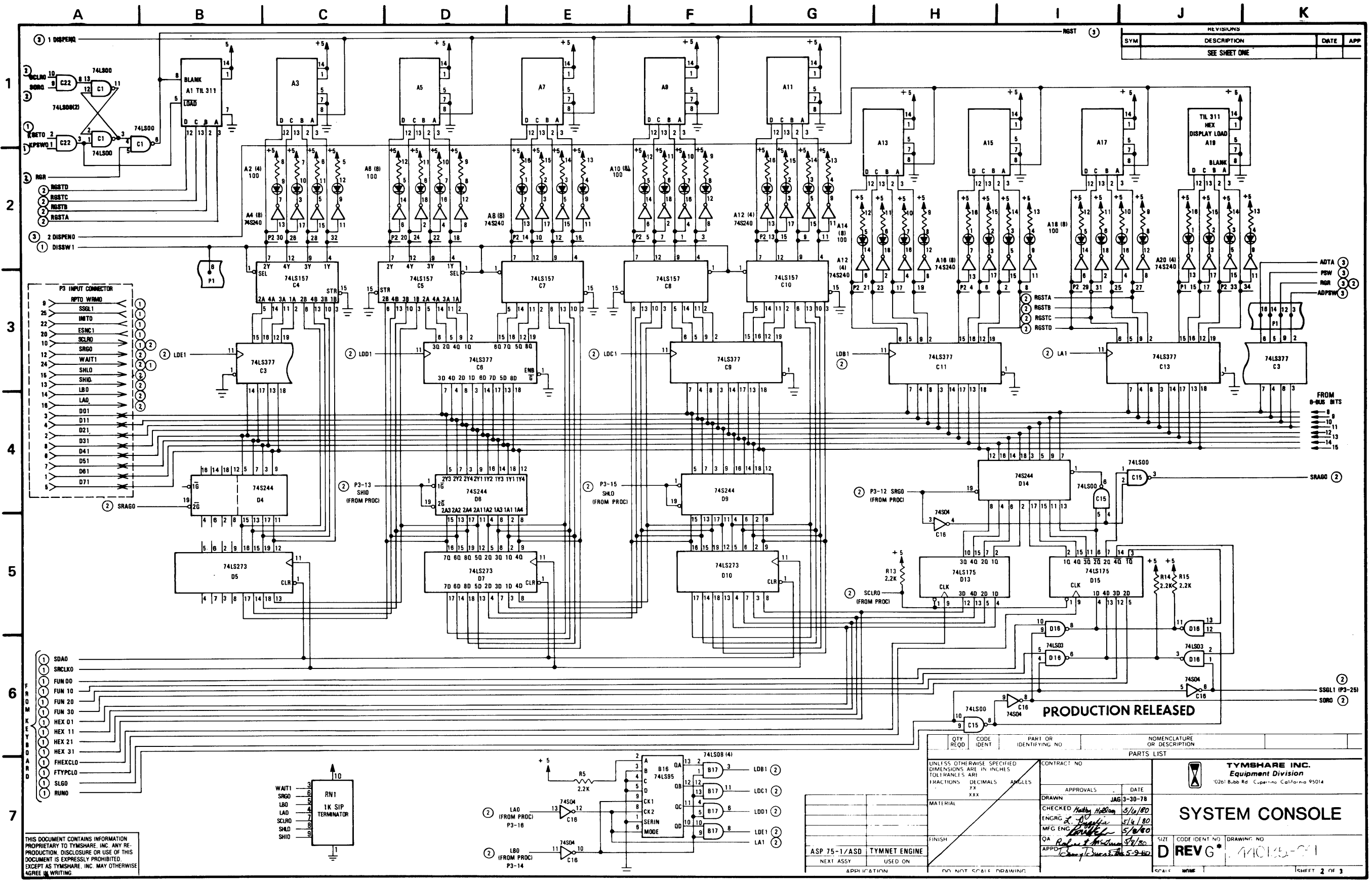


PRODUCTION RELEASED
 *SCHEMATIC ACCEPTABLE FOR BOTH
 REV F AND REV FD(DIGITIZED) BDS

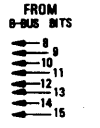
QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES			
CONTRACT NO		DATE	
DRAWN JAG		3-30-78	
CHECKED <i>John Hollman</i>		3/15/78	
ENGRG <i>J. Duffell</i>		5/16/80	
MFG ENG <i>Robert M. Davis</i>		5/19/80	
QA <i>Robert M. Davis</i>		5/19/80	
APPR <i>Robert M. Davis</i>		5-9-80	
MATERIAL		FINISH	
APPLICATION ASP 75-1/ASD TYMNET ENGINE		DO NOT SCALE DRAWING	
NEXT ASSY USED ON		SCALE NONE	
DRAWING NO 440135-001		SHEET 1 OF 3	

SYSTEM CONSOLE

TYMSHARE INC. Equipment Division
 626 S. Bas St. Cupertino California 95014



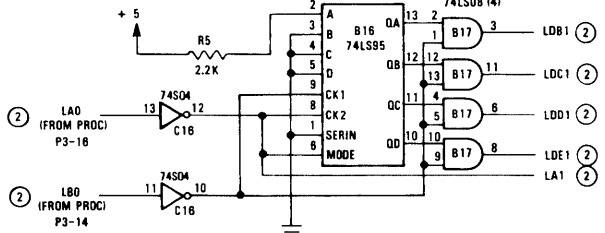
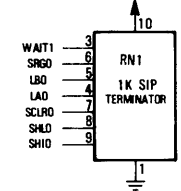
REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET ONE		



SRAG0 ②

SSGL1 (P3-25) ②
SRO0 ②

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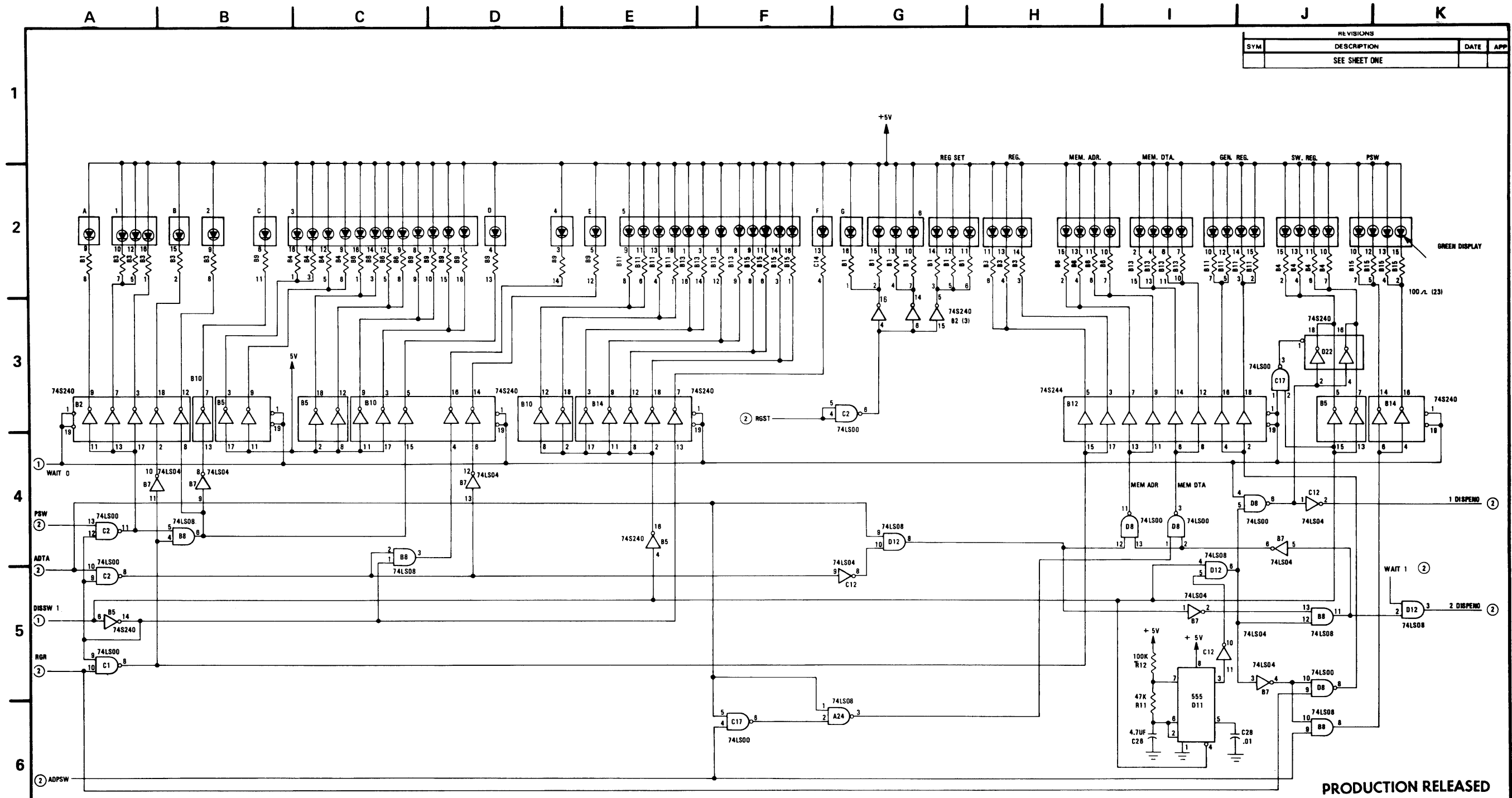


QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
			PARTS LIST
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES F X XXX			
MATERIAL		CONTRACT NO	
FINISH		APPROVALS DATE	
APPLICATION		DRAWN JAG 3-30-78	
TYMNET ENGINE		CHECKED <i>Heath Hadden</i> 5/16/80	
NEXT ASSY USED ON		ENGRG <i>R. J.</i> 5/14/80	
DO NOT SCALE DRAWING		MFG ENG <i>...</i> 5/16/80	
		QA <i>...</i> 5/16/80	
		APPROV <i>...</i> 5-9-80	
		SIZE CODE IDENT NO DRAWING NO	
		D REV G* 140135-001	
		SCALE NONE SHEET 2 OF 3	

PRODUCTION RELEASED

TYMSHARE INC.
Equipment Division
10261 Bubb Rd Cupertino California 95014

SYSTEM CONSOLE



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET ONE		

PRODUCTION RELEASED

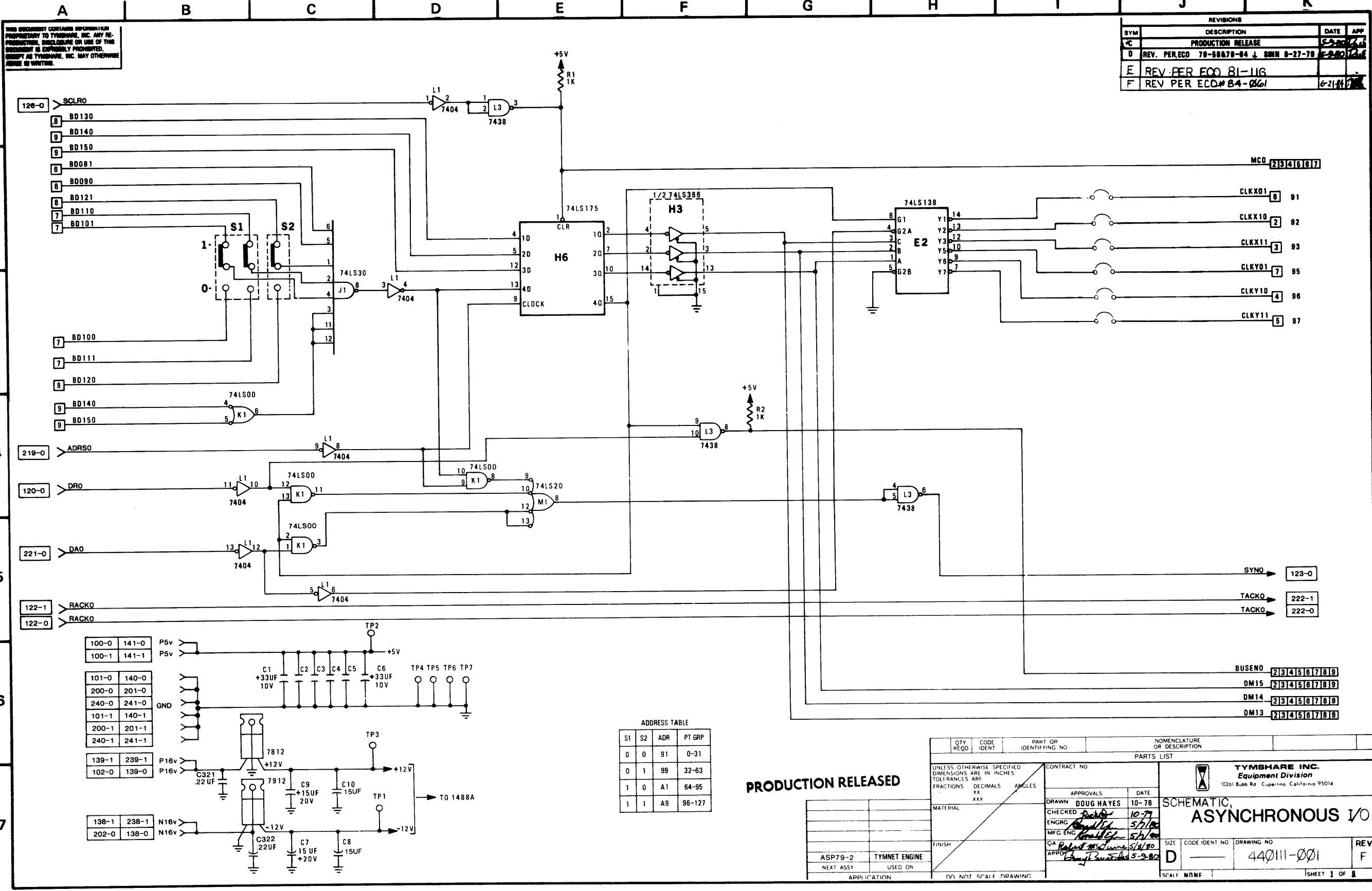
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QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XX XXX		CONTRACT NO	
MATERIAL		APPROVALS	DATE
FINISH		CHECKED <i>Kathy Hallman</i>	3-30-78
NEXT ASSY USED ON		ENGRG <i>R. Bussell</i>	5/6/80
APPLICATION		MFG ENG <i>Russell</i>	5/14/80
DO NOT SCALE DRAWING		QA <i>Russell</i>	5/14/80
		APPV <i>Russell</i>	5-9-80

TYMSHARE INC. Equipment Division 10201 Burb Rd Cupertino California 95014

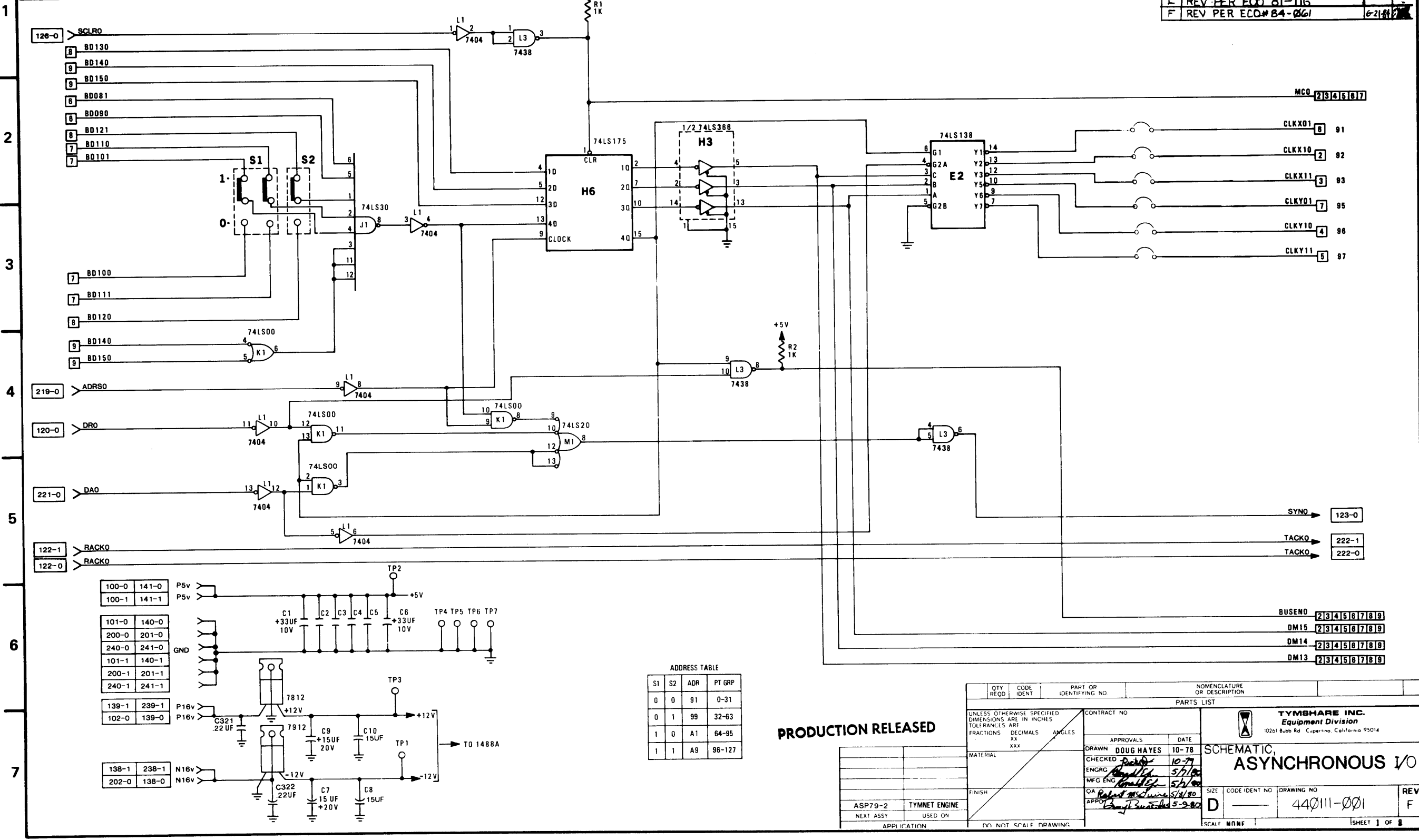
SYSTEM CONSOLE

REV G 140135-1



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REVISIONS			
SYM	DESCRIPTION	DATE	APP
C	PRODUCTION RELEASE	5-28-78	24
D	REV. PER ECO 70-58A78-84 J. SMN 8-27-78	8-20-78	24
E	REV. PER ECO 81-116		
F	REV. PER ECO # 84-061	6-21-80	24



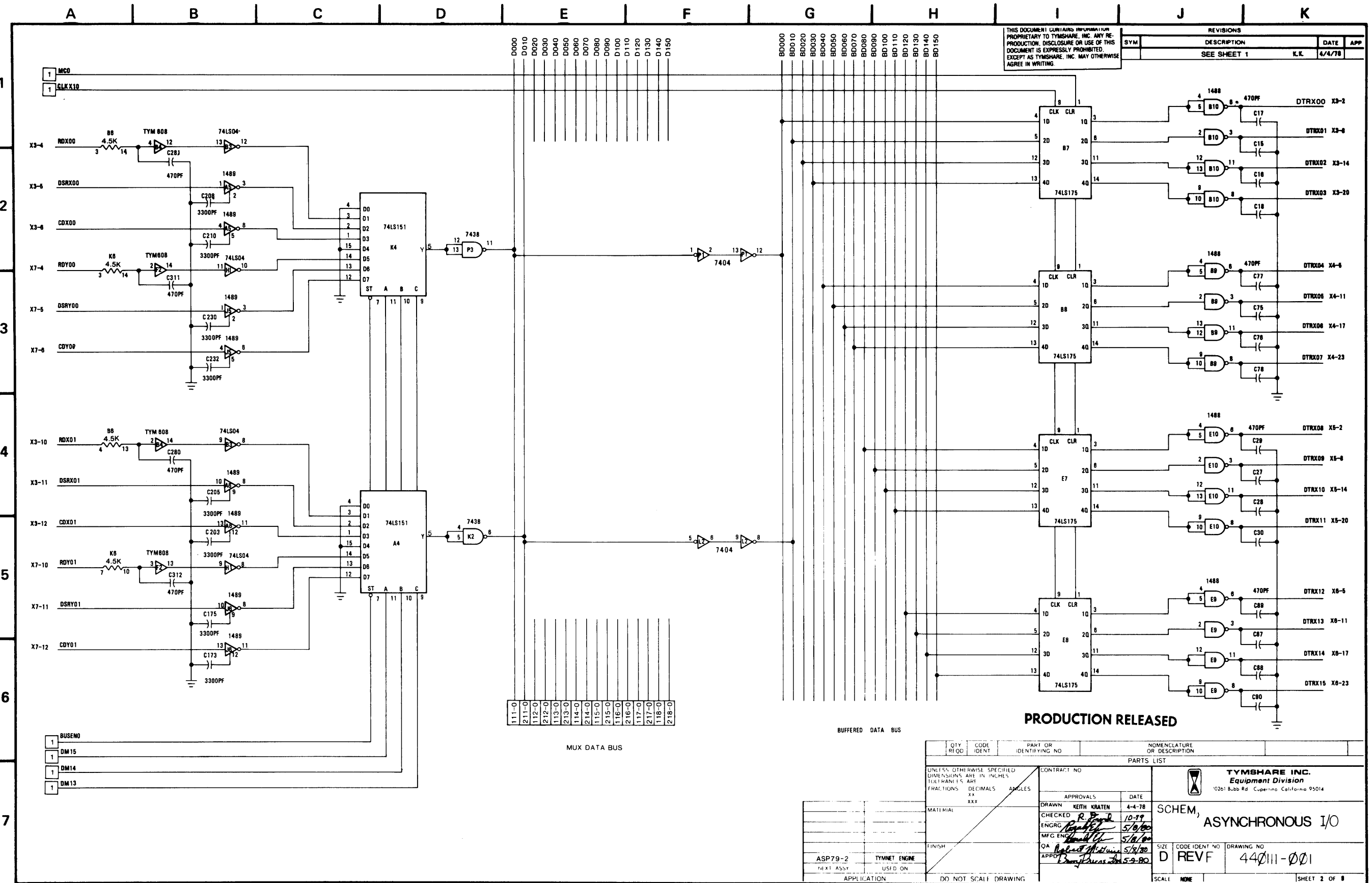
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0	1	99	32-63	
1	0	A1	64-95	
1	1	A9	96-127	

PRODUCTION RELEASED

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	
MATERIAL		DATE	
FINISH		DRAWN DOUG HAYES 10-78	
NEXT ASSY USED ON		CHECKED <i>[Signature]</i> 10-78	
APPLICATION		ENGRG <i>[Signature]</i> 5/7/80	
DO NOT SCALE DRAWING		MFG ENG <i>[Signature]</i> 5/2/80	
		QA <i>[Signature]</i> 5/2/80	
		APPD <i>[Signature]</i> 5-9-80	
		SCHEMATIC, ASYNCHRONOUS I/O	
		SIZE CODE IDENT NO DRAWING NO	
		D 440111-001	
		REV F	
		SCALE NONE SHEET 1 OF 8	

TYMSHARE INC.
Equipment Division
10201 Burb Rd. Cupertino, California 95014



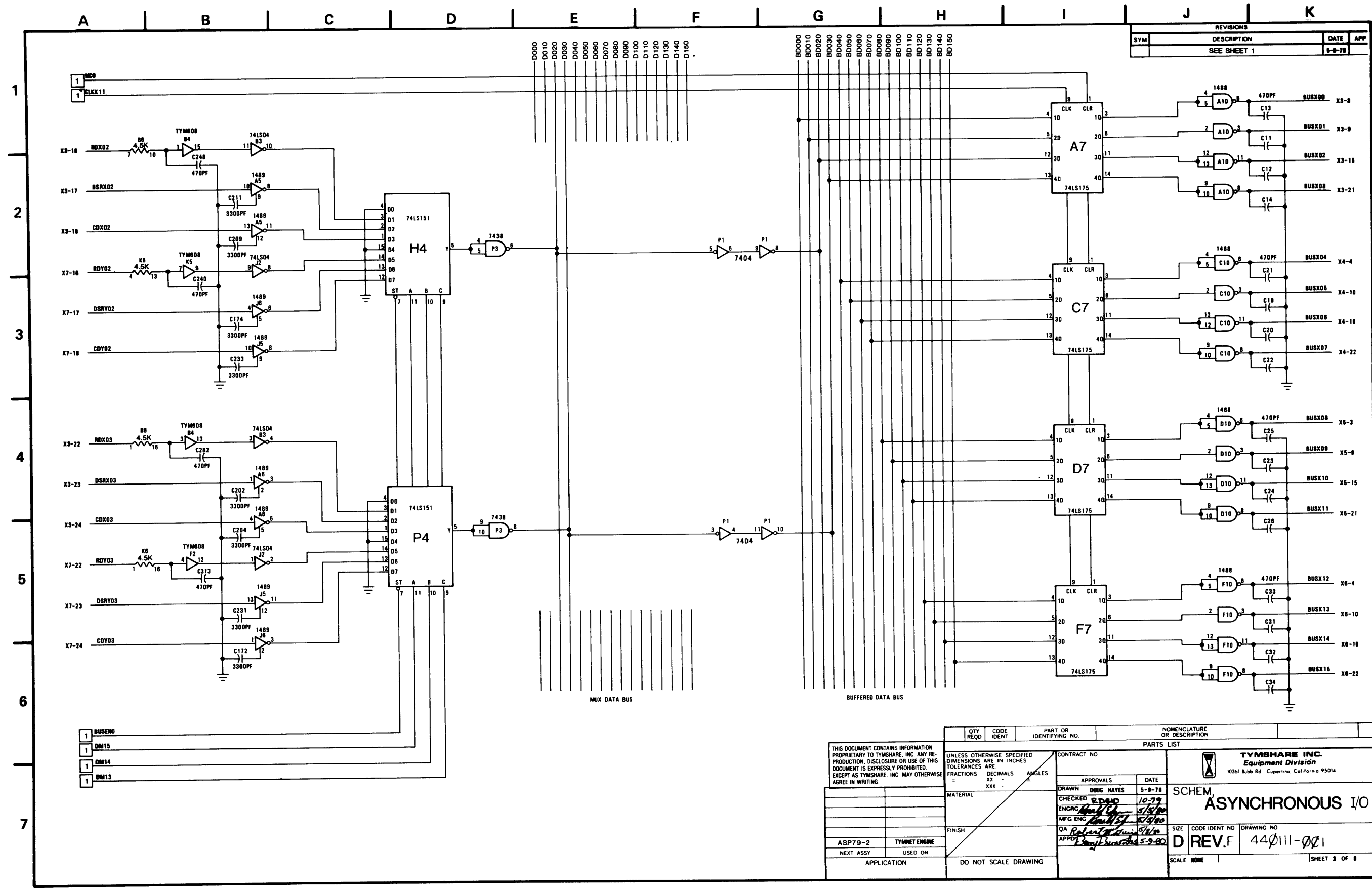
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REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1	K.K.	4/4/78

PRODUCTION RELEASED

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES		CONTRACT NO	
MATERIAL		APPROVALS	
FINISH		DATE	
DRAWN KEITH KRATEN		4-4-78	
CHECKED R. P. [Signature]		10-99	
ENGRG [Signature]		5/6/80	
MFG ENGR [Signature]		5/12/80	
QA [Signature]		5/12/80	
APPROV [Signature]		5-9-80	
APPLICATION		SCALE	
DO NOT SCALE DRAWING		NONE	

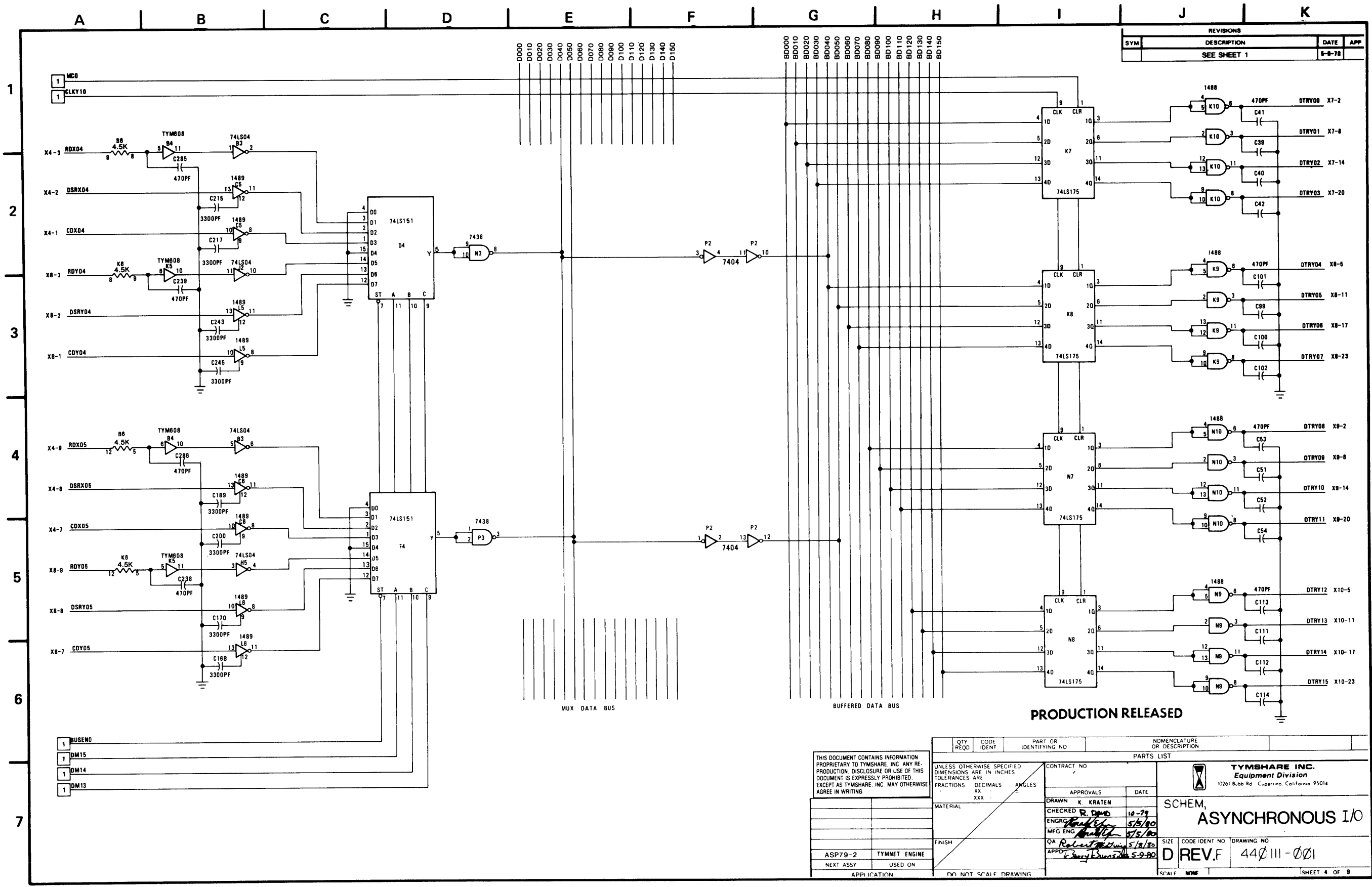
TYMSHARE INC. Equipment Division 10261 Burbank Rd. Cupertino California 95014	SCHEM, ASYNCHRONOUS I/O
SIZE D	CODE IDENT NO REV F
DRAWING NO 440111-001	
SHEET 2 OF 8	



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1	8-8-78	

- 1 BUSENO
- 1 DM15
- 1 DM14
- 1 DM13

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PARTS LIST			
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CONTRACT NO.		APPROVALS DATE DRAWN DOUG HAYES 5-8-78 CHECKED EDWARD 10-79 ENGRG [Signature] 5/8/80 MFG ENG [Signature] 5/8/80 QA [Signature] 5/8/80 APPD [Signature] 5-9-80	
MATERIAL		TYMSHARE INC. Equipment Division 10261 Robb Rd. Cupertino, California 95014	
FINISH		SCHEM. ASYNCHRONOUS I/O	
ASP79-2 TYMNET ENGINE NEXT ASSY USED ON		SIZE CODE IDENT NO DRAWING NO D REV.F 440111-001	
APPLICATION		SCALE NONE SHEET 3 OF 8	



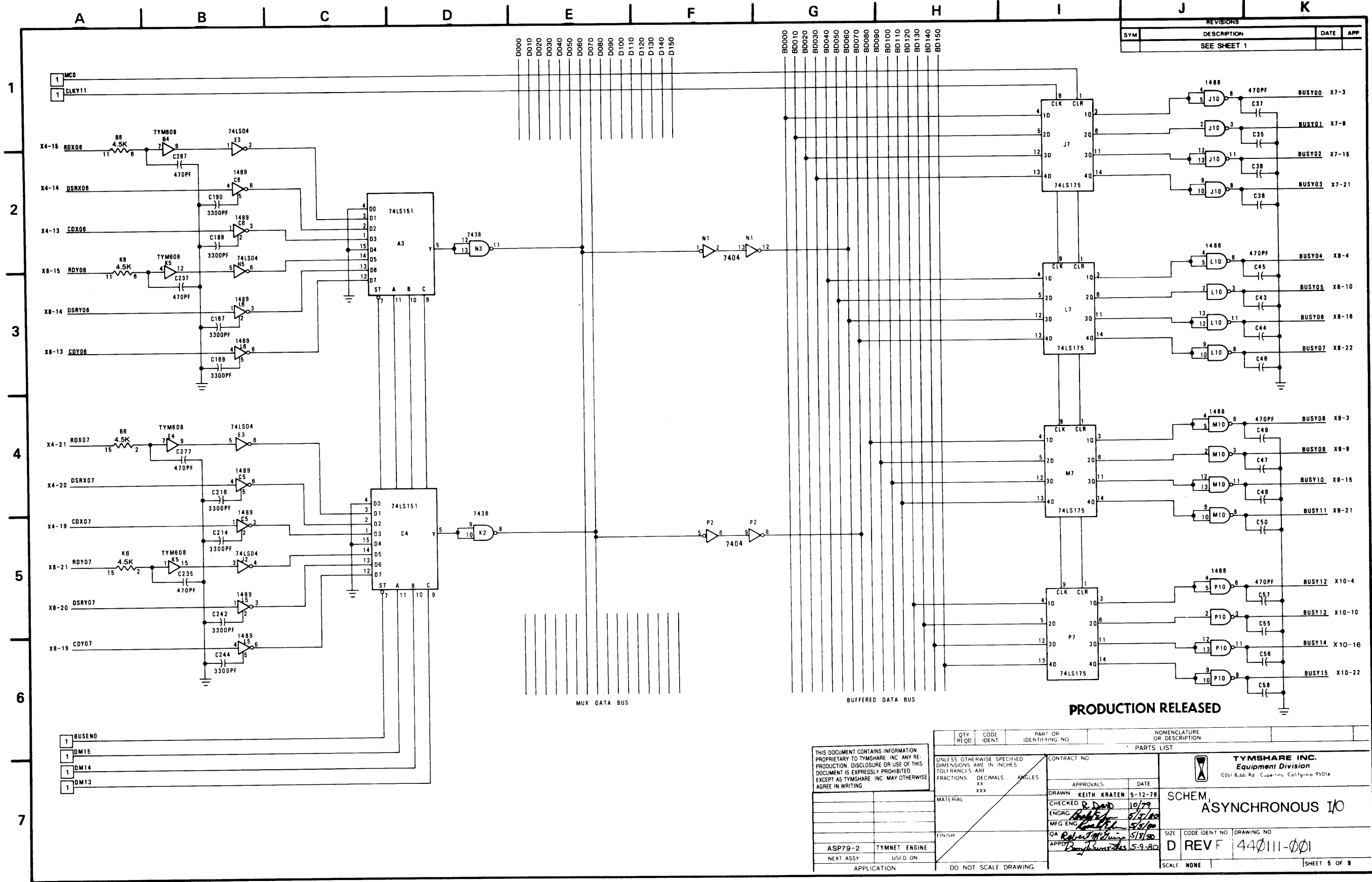
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SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1	5-9-78	

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	PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS DECIMALS ANGLES XX .XXX .XXX	CONTRACT NO		APPROVALS		
	DRAWN K KRATEN		DATE 10-79		
CHECKED R DMO		ENGRG R DMO		MFG ENG R DMO	
APPD R DMO		QA R DMO		APPD R DMO	
FINISH		MATERIAL		SIZE CODE IDENT NO DRAWING NO	
ASP79-2 TYMNET ENGINE		DO NOT SCALE DRAWING		D REV.F 440111-001	
NEXT ASSY USED ON		APPLICATION		SCALE NONE SHEET 4 OF 8	

TYMSHARE INC. Equipment Division 10261 Bubb Rd. Cupertino California 95014

SCHEM, ASYNCHRONOUS I/O



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

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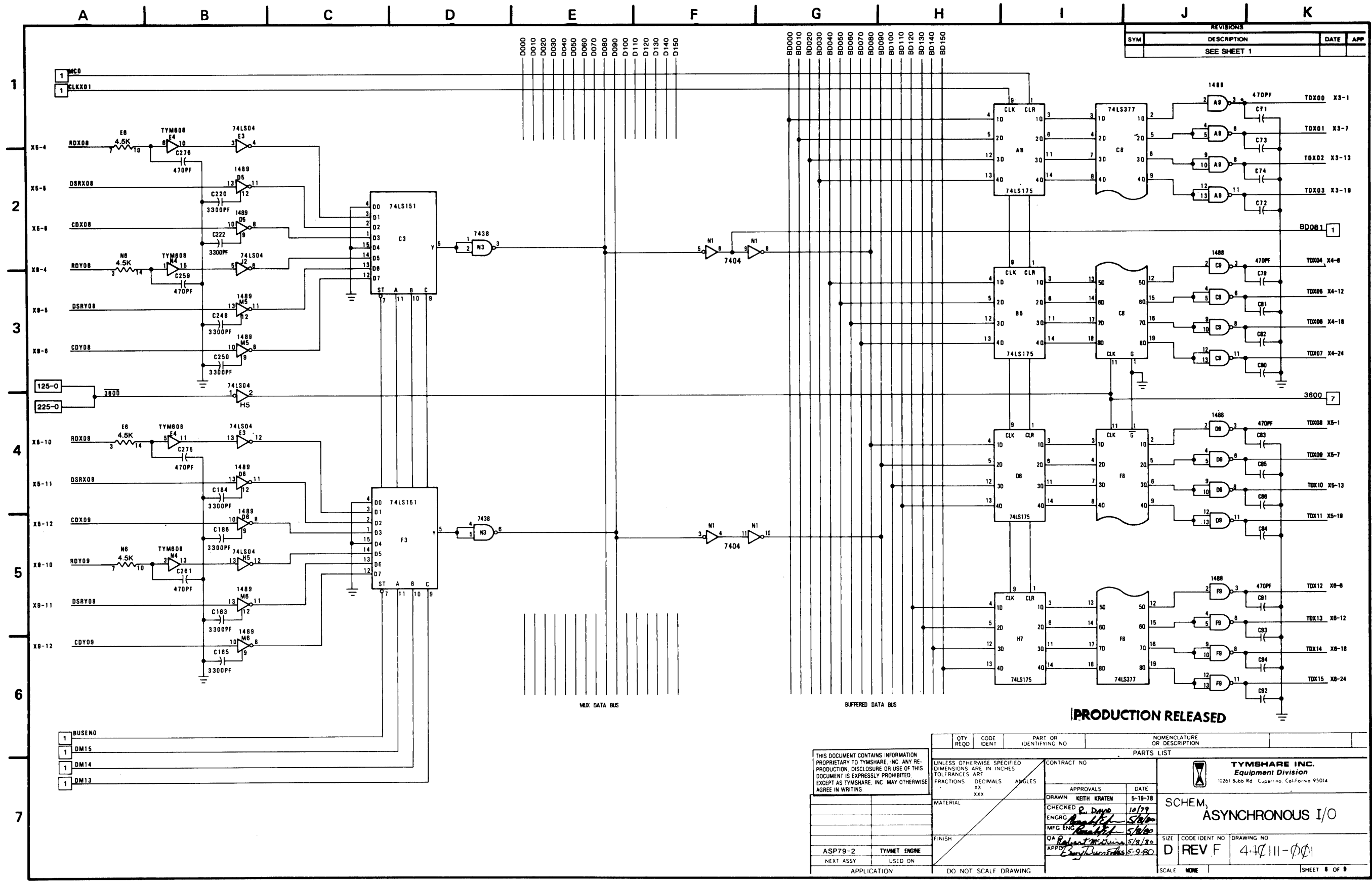
QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE		CONTRACT NO	
FRACTIONS	DECIMALS	ANGLES	APPROVALS
XXX	XX	XXX	DATE
MATERIAL	DRAWN KEITH KRATEN 5-12-78		
FINISH	CHECKED R. David 10/79		
ENGRG	ENGRG Bob Felt 5/5/80		
MFG ENG	MFG ENG Keith Kraten 5/5/80		
QA	QA Robert M. Young 5/9/80		
APPV	APPV Daryl S. ... 5-9-80		
ASPT9-2	TYMNET ENGINE	SIZE	CODE IDENT NO
NEXT ASSY	USED ON	D	REV F
APPLICATION	DO NOT SCALE DRAWING	SCALE NONE	DRAWING NO 440111-001

TYMSHARE INC.
Equipment Division
10201 Bobb Rd. Cupertino California 95014

SCHEM,
ASYNCHRONOUS I/O

SIZE CODE IDENT NO DRAWING NO
D REV F 440111-001

SCALE NONE SHEET 5 OF 8



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

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

CONTRACT NO. _____

APPROVALS: _____ DATE: 5-19-78

DRAWN: KEITH KRATEN

CHECKED: P. Dwyer 10/29

ENGRG: [Signature]

MFG EN: [Signature] 5/1/80

QA: [Signature] 5/9/80

APPD: [Signature] 5-9-80

TYMSHARE INC. Equipment Division
10261 Bubb Rd. Cupertino, California 95014

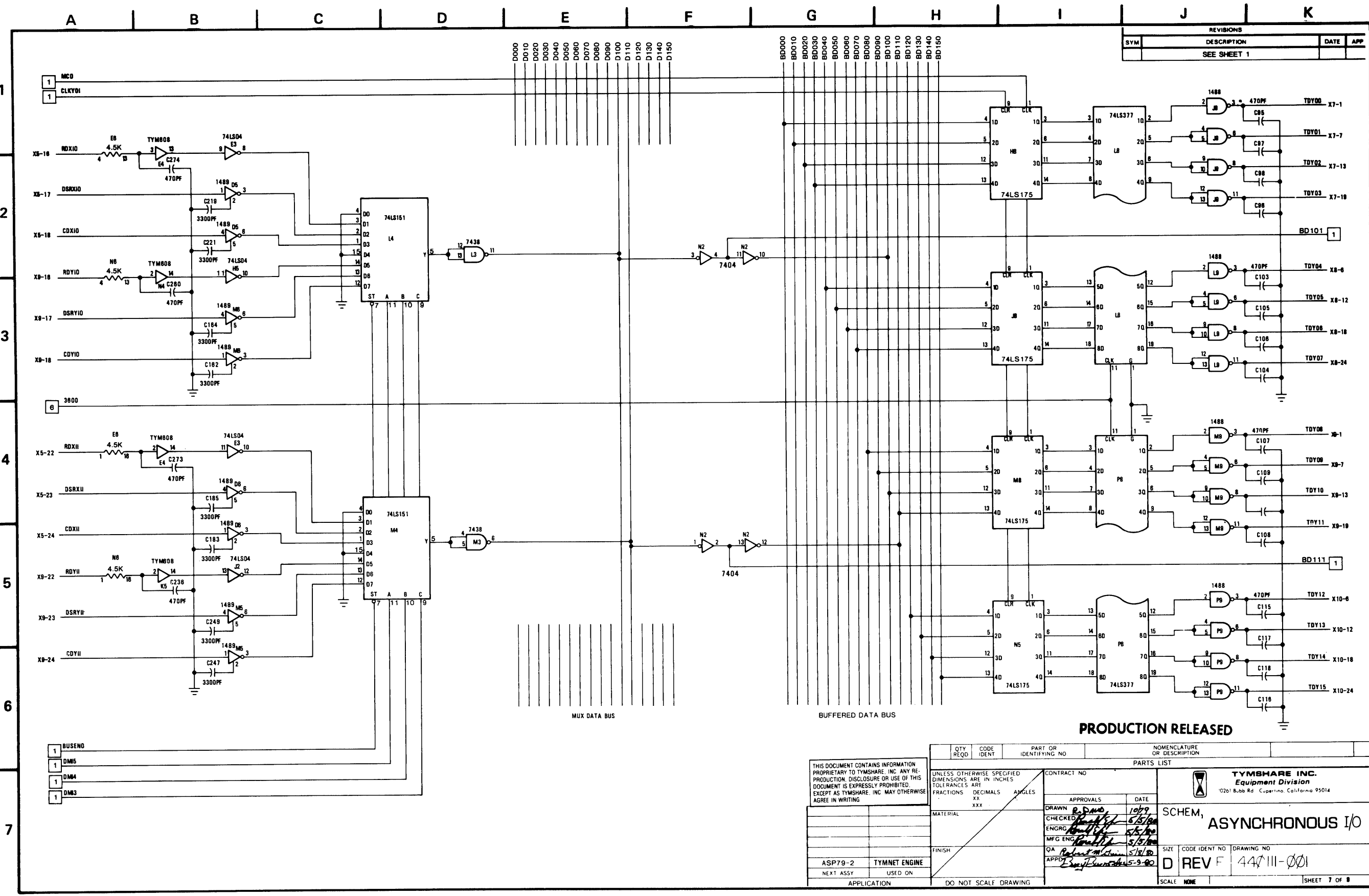
SCHEM. ASYNCHRONOUS I/O

SIZE: _____ CODE IDENT NO: _____ DRAWING NO: _____

ASP79-2 TYMNET ENGINE NEXT ASSY USED ON

DO NOT SCALE DRAWING

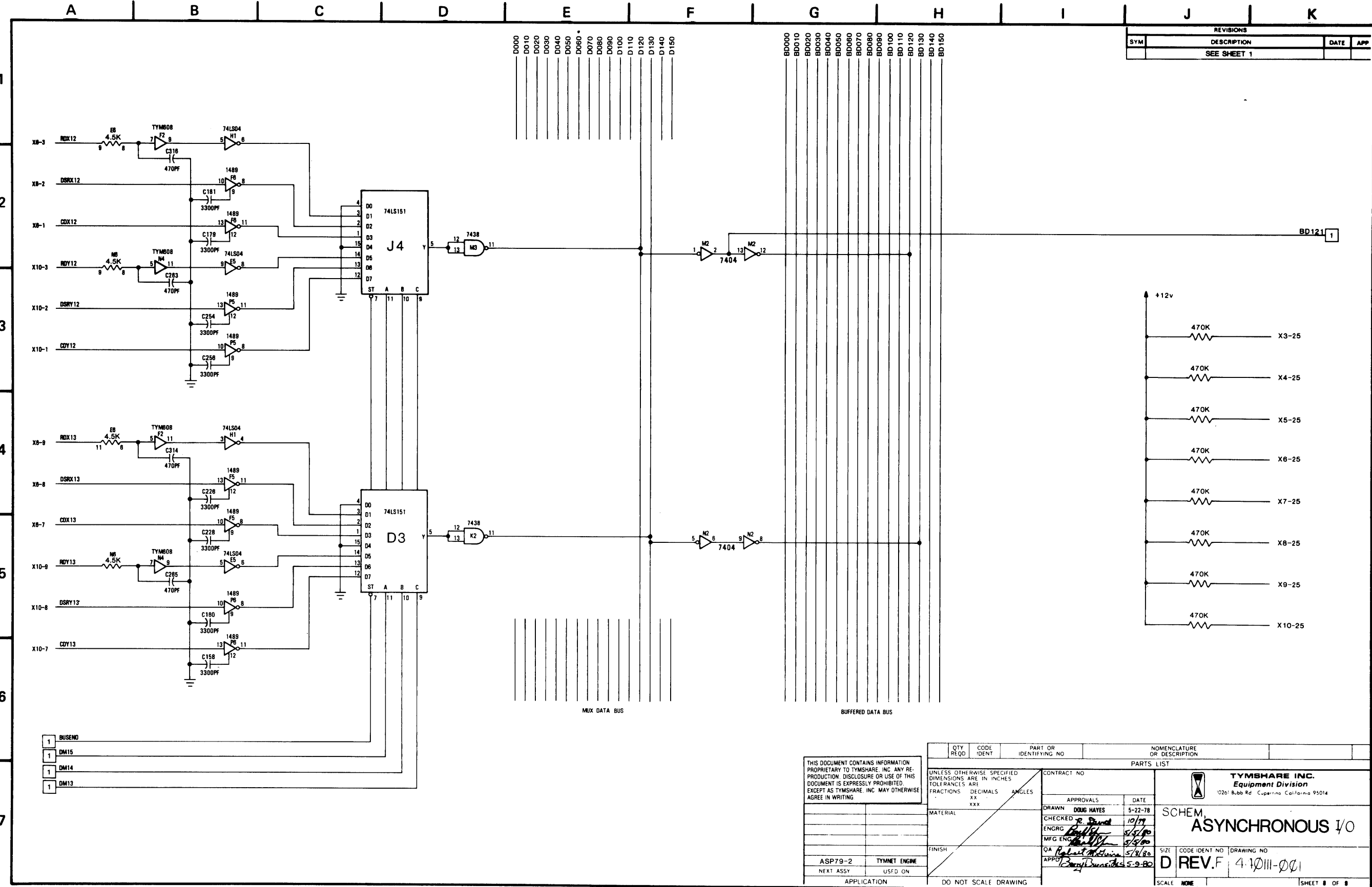
SCALE: NONE SHEET 8 OF 8



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

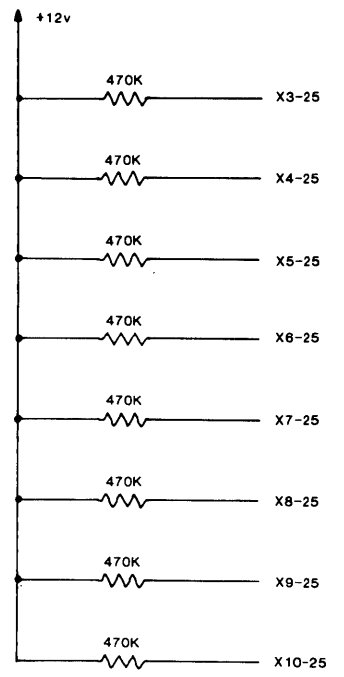
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	CONTRACT NO. APPROVALS DRAWN: <i>R. D. AND</i> 10/79 CHECKED: <i>[Signature]</i> 5/15/80 ENGR: <i>[Signature]</i> 5/15/80 MFG ENG: <i>[Signature]</i> 5/15/80 QA: <i>[Signature]</i> 5/15/80 APPROV: <i>[Signature]</i> 5-9-80	DATE DATE DATE DATE DATE
APPLICATION ASP79-2 TYMNET ENGINE NEXT ASSY USED ON	FINISH DO NOT SCALE DRAWING	SIZE CODE IDENT NO. 440111-001 DRAWING NO. SCALE NONE SHEET 7 OF 8

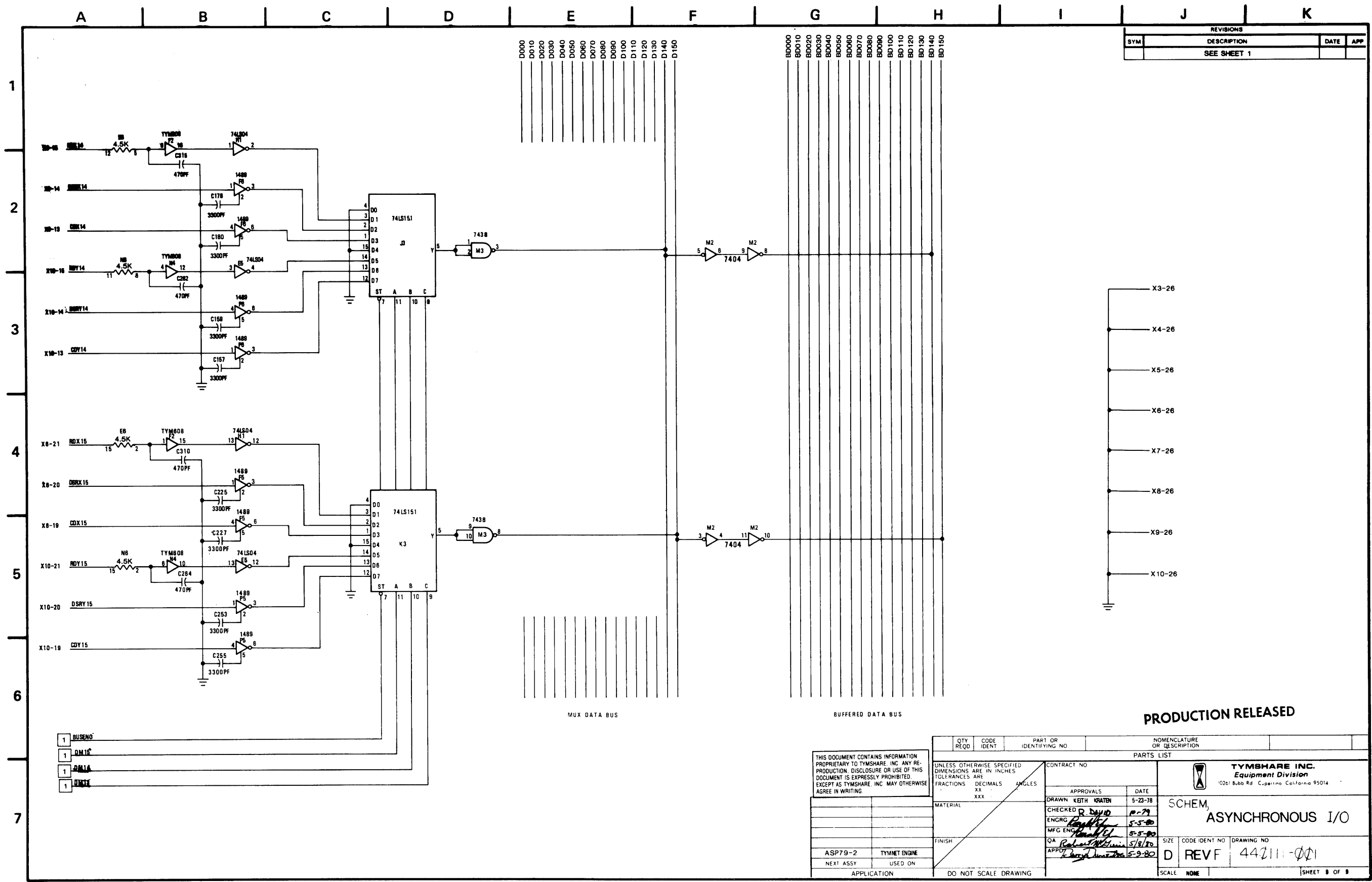


REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

D000
D010
D020
D030
D040
D050
D060
D070
D080
D090
D100
D110
D120
D130
D140
D150
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BD110
BD120
BD130
BD140
BD150



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	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES xxx	DRAWN DOUG HAYES 5-22-78 CHECKED p. Sand 10/78 ENGRG [Signature] 5/4/80 MFG ENG [Signature] 5/4/80 QA [Signature] 5/8/80 APPD [Signature] 5-9-80	SCHEM. ASYNCHRONOUS I/O
APPLICATION ASP79-2 TYMNET ENGINE NEXT ASSY USFD ON	DO NOT SCALE DRAWING	SCALE NONE	SHEET 8 OF 8

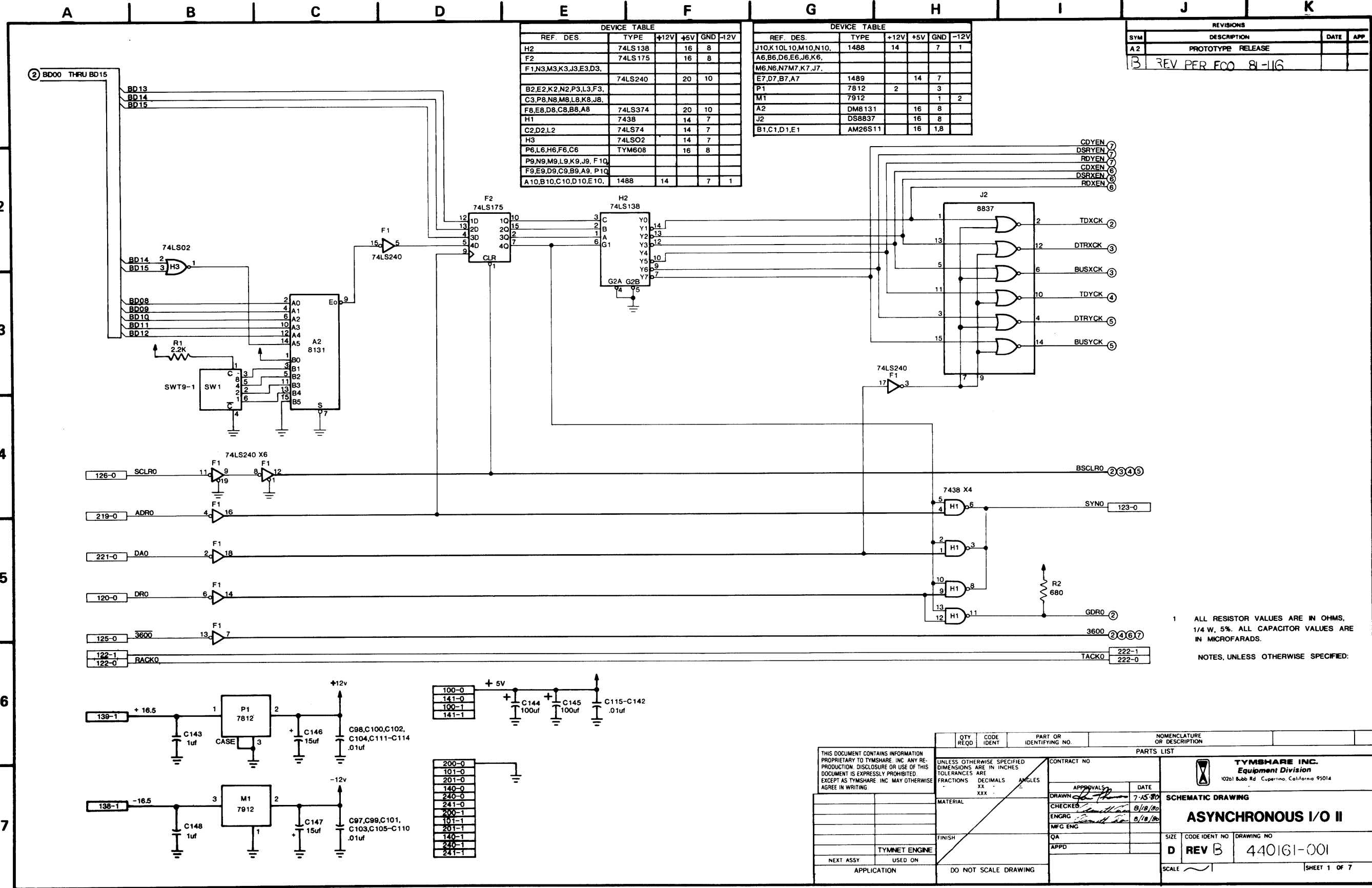


REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

- X3-26
- X4-26
- X5-26
- X6-26
- X7-26
- X8-26
- X9-26
- X10-26

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	PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX	CONTRACT NO			
	APPROVALS		DATE	
	DRAWN: KETH KWATEN		5-23-78	
	CHECKED: P. Dwyer		5-29	
	ENGRG: [Signature]		5-5-80	
MFG ENG: [Signature]		5-5-80		
QA: [Signature]		5/8/80		
APPD: [Signature]		5-9-80		
ASPT9-2	TYMNET ENGINE	SIZE	CODE IDENT NO	DRAWING NO
NEXT ASSY USED ON		D	REV F	442111-001
APPLICATION	DO NOT SCALE DRAWING	SCALE	NONE	SHEET 0 OF 0



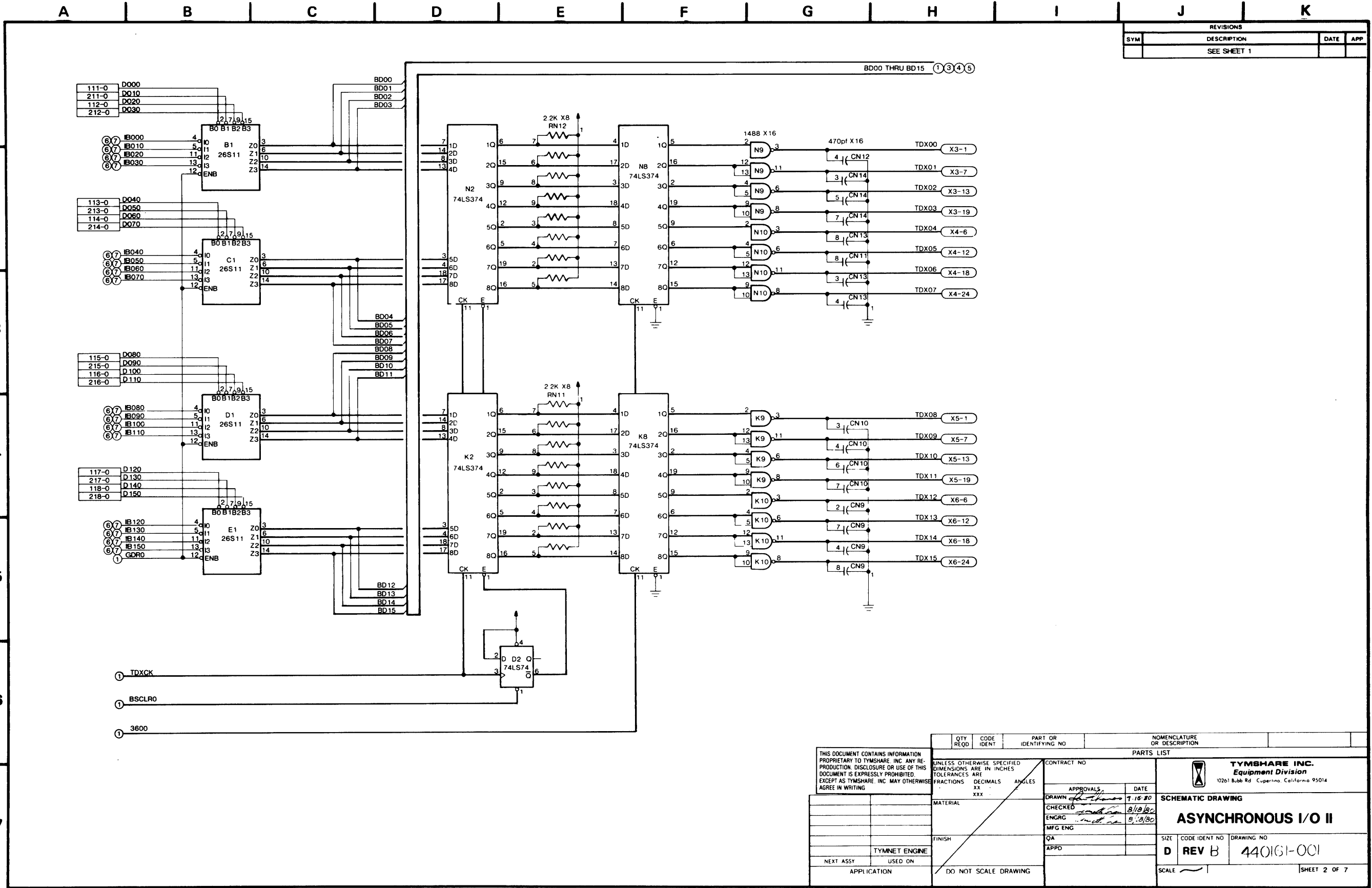
DEVICE TABLE				
REF. DES.	TYPE	+12V	+5V	GND -12V
H2	74LS138	16	8	
F2	74LS175	16	8	
F1,N3,M3,K3,J3,E3,D3.	74LS240	20	10	
B2,E2,K2,N2,P3,L3,F3.				
C3,P8,N8,M8,L8,K8,J8.				
F8,E8,D8,C8,B8,A8	74LS374	20	10	
H1	7438	14	7	
C2,D2,L2	74LS74	14	7	
H3	74LSO2	14	7	
P6,L6,H6,F6,C6	TYM608	16	8	
P9,N9,M9,L9,K9,J9, F10.				
F9,E9,D9,C9,B9,A9, P10.				
A10,B10,C10,D10,E10.	1488	14	7	1

DEVICE TABLE				
REF. DES.	TYPE	+12V	+5V	GND -12V
J10,X10,L10,M10,N10.	1488	14	7	1
A6,B6,D6,E6,J6,K6.				
M6,N6,N7M7,K7,J7.				
E7,D7,B7,A7	1489	14	7	
P1	7812	2	3	
M1	7912	1	2	
A2	DM8131	16	8	
J2	DS8837	16	8	
B1,C1,D1,E1	AM26S11	16	1,8	

REVISIONS			
SYM	DESCRIPTION	DATE	APP
A2	PROTOTYPE RELEASE		
B	REV PER ECO 81-116		

1 ALL RESISTOR VALUES ARE IN OHMS, 1/4 W, 5%. ALL CAPACITOR VALUES ARE IN MICROFARADS. NOTES, UNLESS OTHERWISE SPECIFIED:

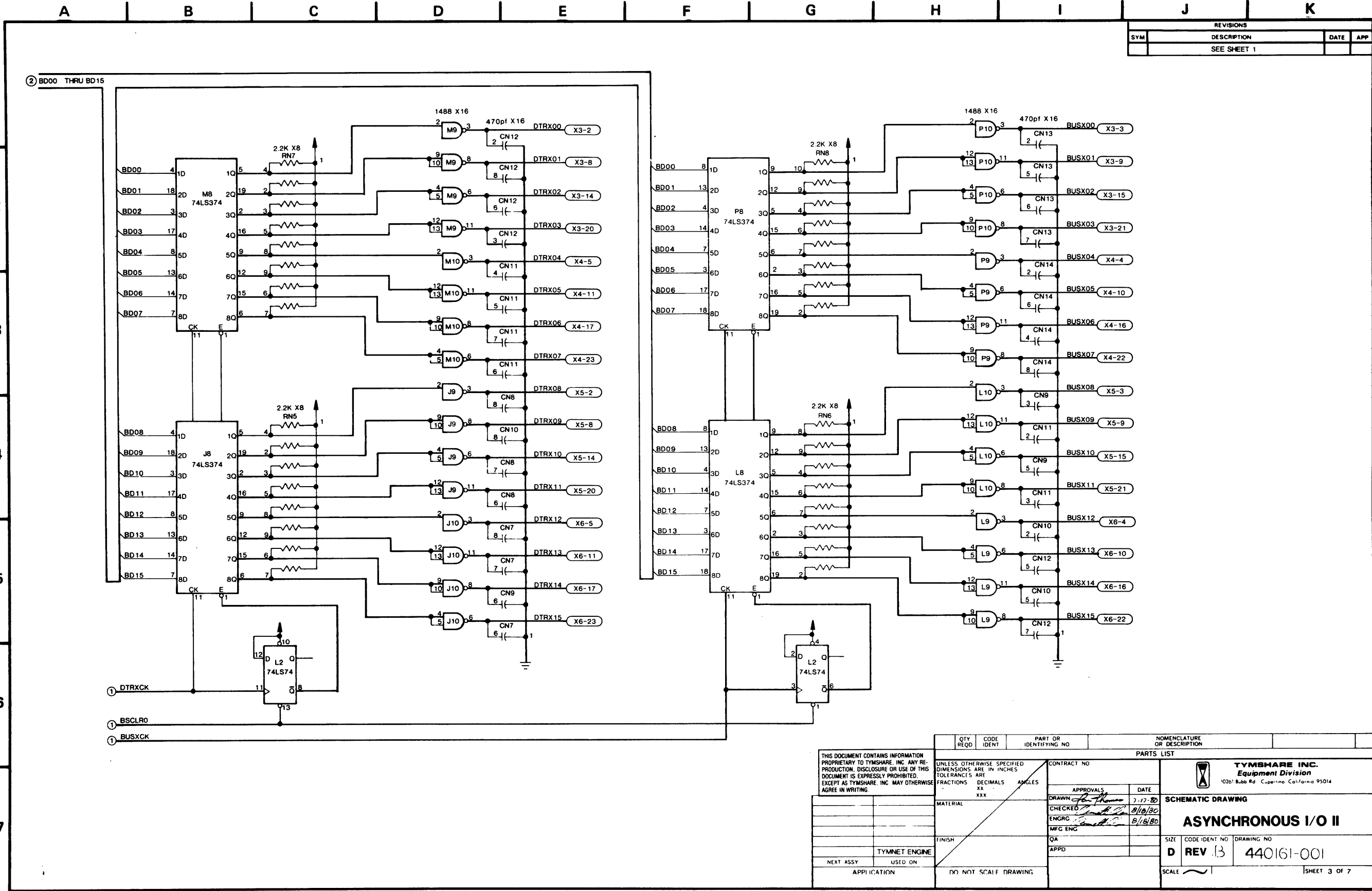
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	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. FRACTIONS DECIMALS ANGLES XX .XXX .XXX	MATERIAL FINISH TYMNET ENGINE NEXT ASSY USED ON APPLICATION	DATE 7-15-80 8/18/80 8/18/80	SCHEMATIC DRAWING ASYNCHRONOUS I/O II
	DO NOT SCALE DRAWING	SIZE D	CODE IDENT NO REV B	DRAWING NO 440161-001
	SCALE	SHEET 1 OF 7		



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

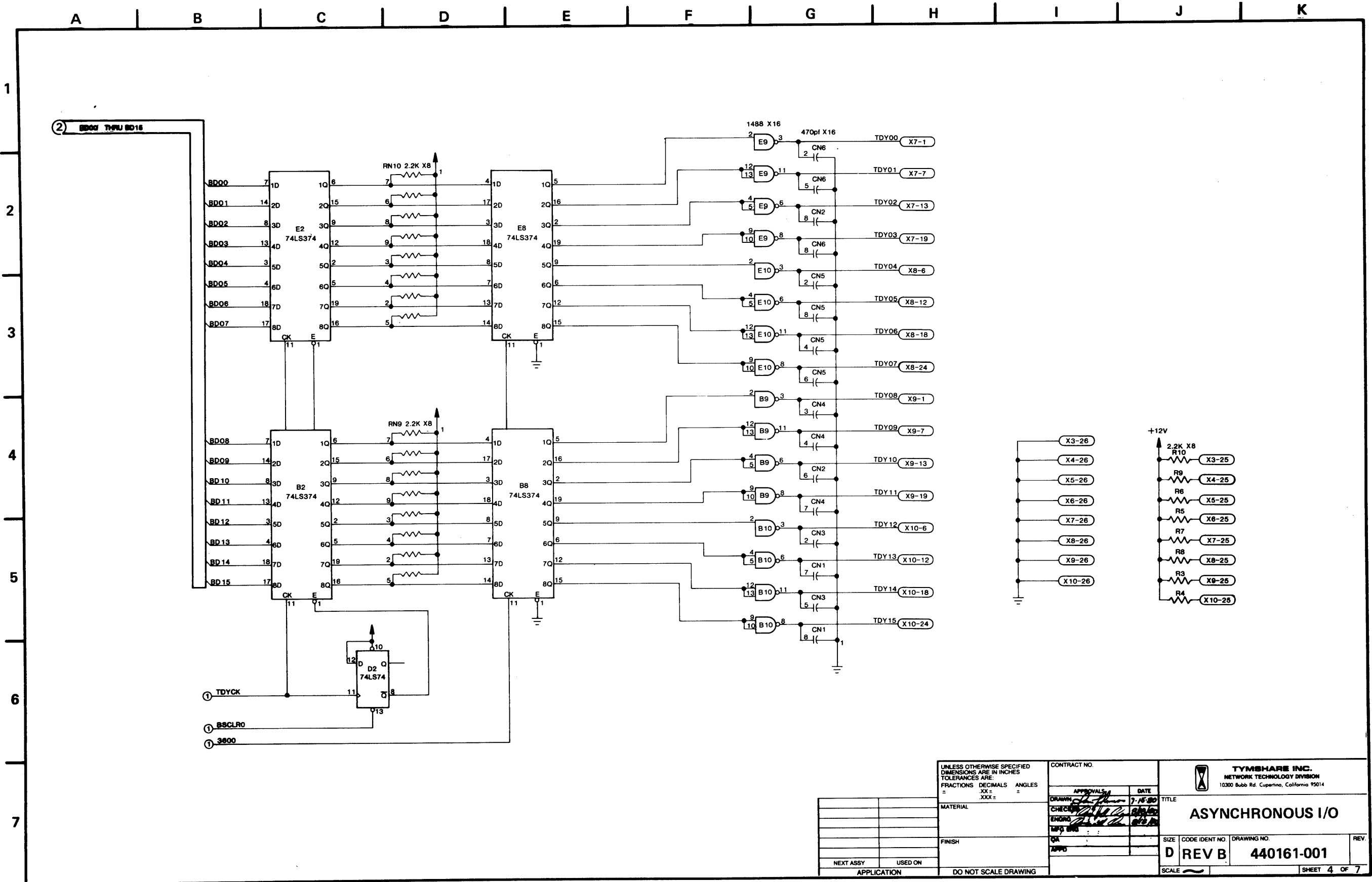
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		APPROVALS: _____ DATE: 7-16-80	
MATERIAL: _____		CHECKED: _____ ENGRG: _____ MFG ENG: _____	
FINISH: _____		QA: _____ APPD: _____	
TYMNET ENGINE		SCHEMATIC DRAWING	
NEXT ASSY USED ON: _____		SIZE: D CODE IDENT NO: REV B DRAWING NO: 440161-001	
APPLICATION: _____		SCALE: _____ SHEET 2 OF 7	

TYMSHARE INC.
 Equipment Division
 10261 8th St. Cupertino, California 95014

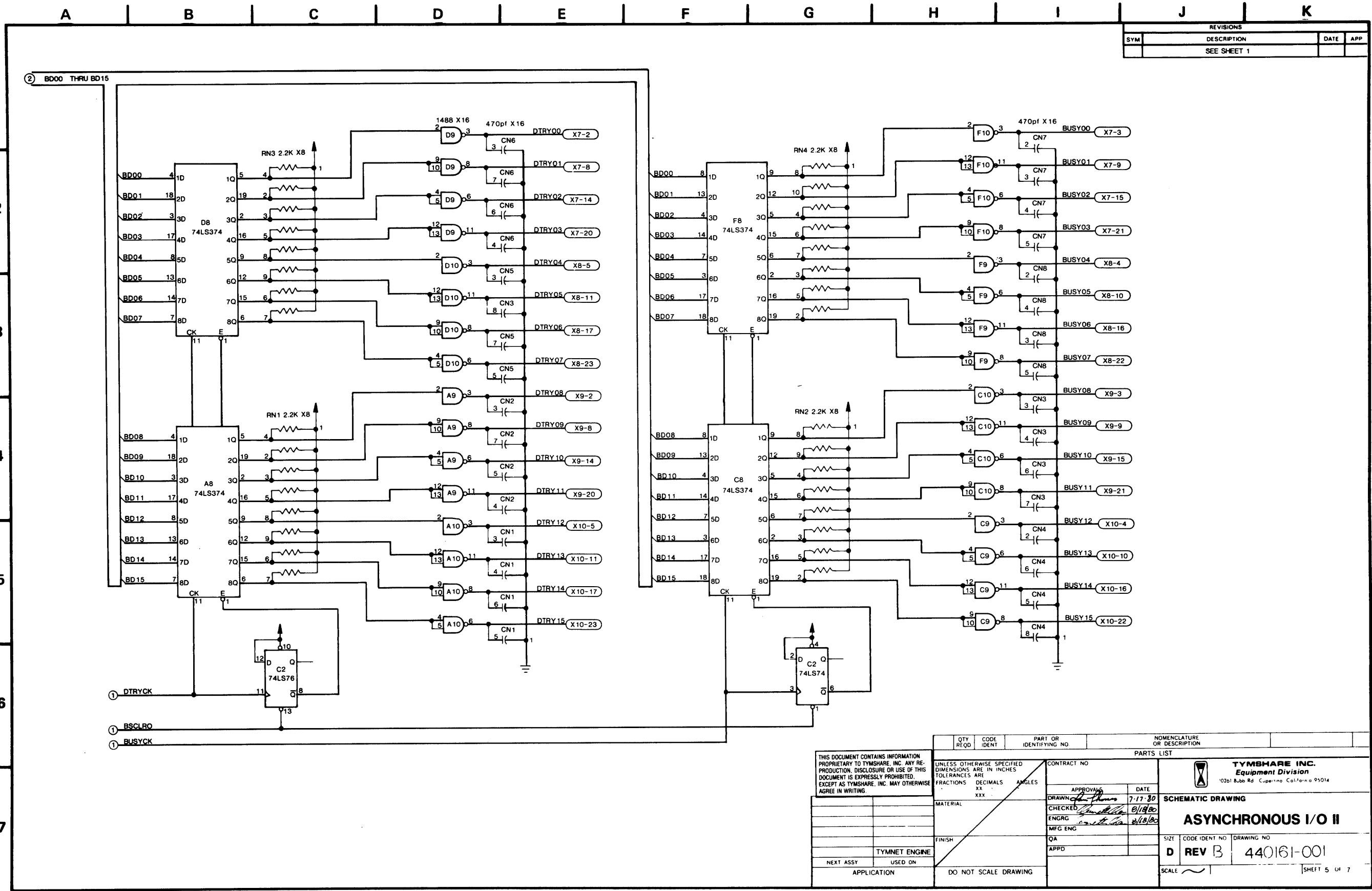


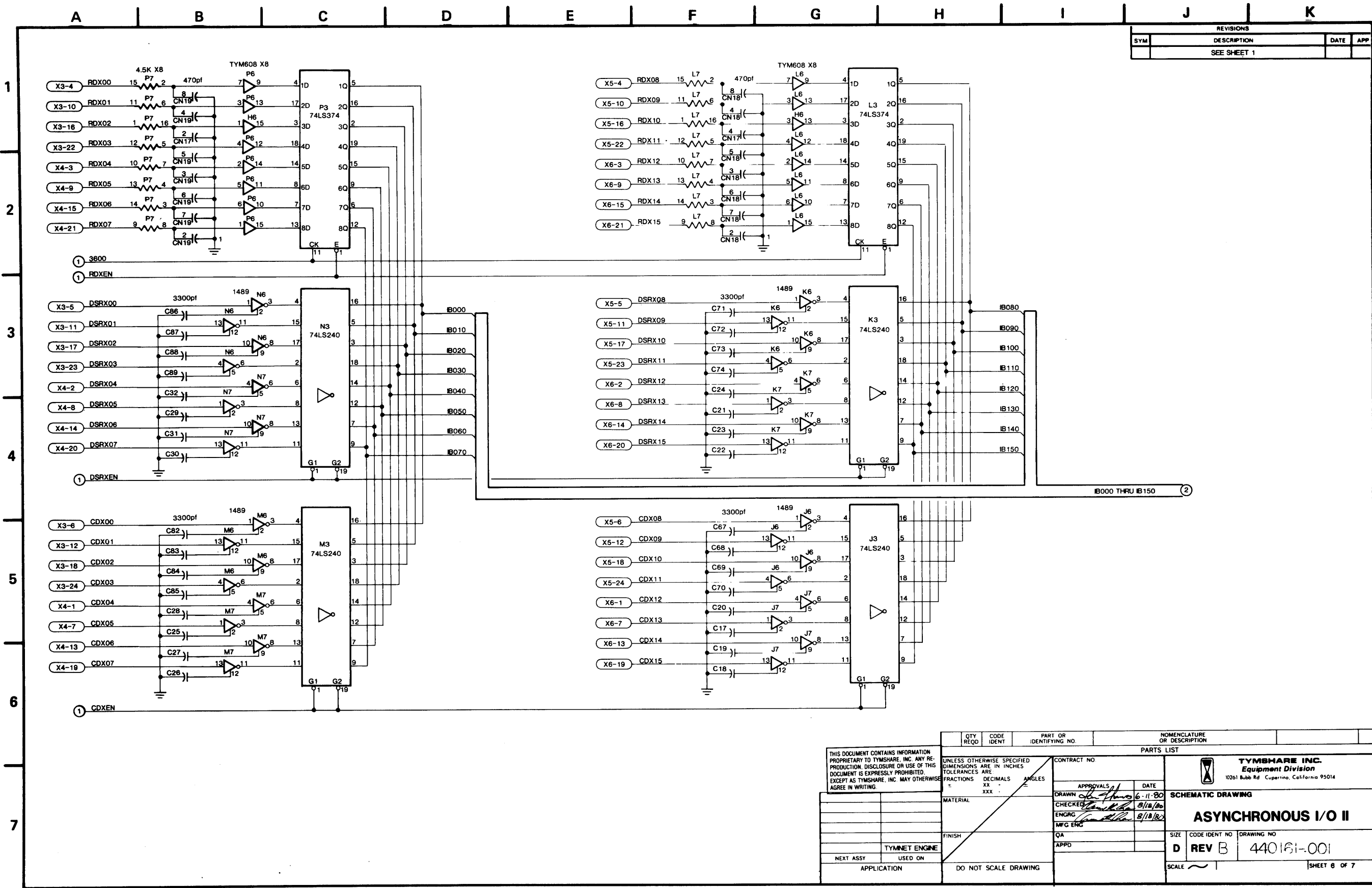
REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

QTY REQD		CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST				
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DRAWN		APPROVALS		DATE
CHECKED		ENGR		DATE
MFG ENG		QA		DATE
APPD		SCALE		
TYMNET ENGINE		DO NOT SCALE DRAWING		
NEXT ASSY USED ON		APPLICATION		
TYMSHARE INC. Equipment Division 10201 Babb Rd Cupertino California 95014		SCHEMATIC DRAWING		
ASYNCHRONOUS I/O II		SIZE CODE IDENT NO DRAWING NO		
D REV 13		440161-001		
SCALE		SHEET 3 OF 7		



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES = .XX = .XXX =		CONTRACT NO.		 10300 Bubb Rd. Cupertino, California 95014	
MATERIAL		APPROVALS	DATE	TITLE	
FINISH		DRAWN	7-15-80	ASYNCHRONOUS I/O	
NEXT ASSY		CHECKED		SIZE	CODE IDENT NO
USED ON		ENGR		D	REV B
APPLICATION		QA		440161-001	DRAWING NO.
DO NOT SCALE DRAWING		APP'D		840161-001	REV.
		SCALE		SHEET 4 OF 7	

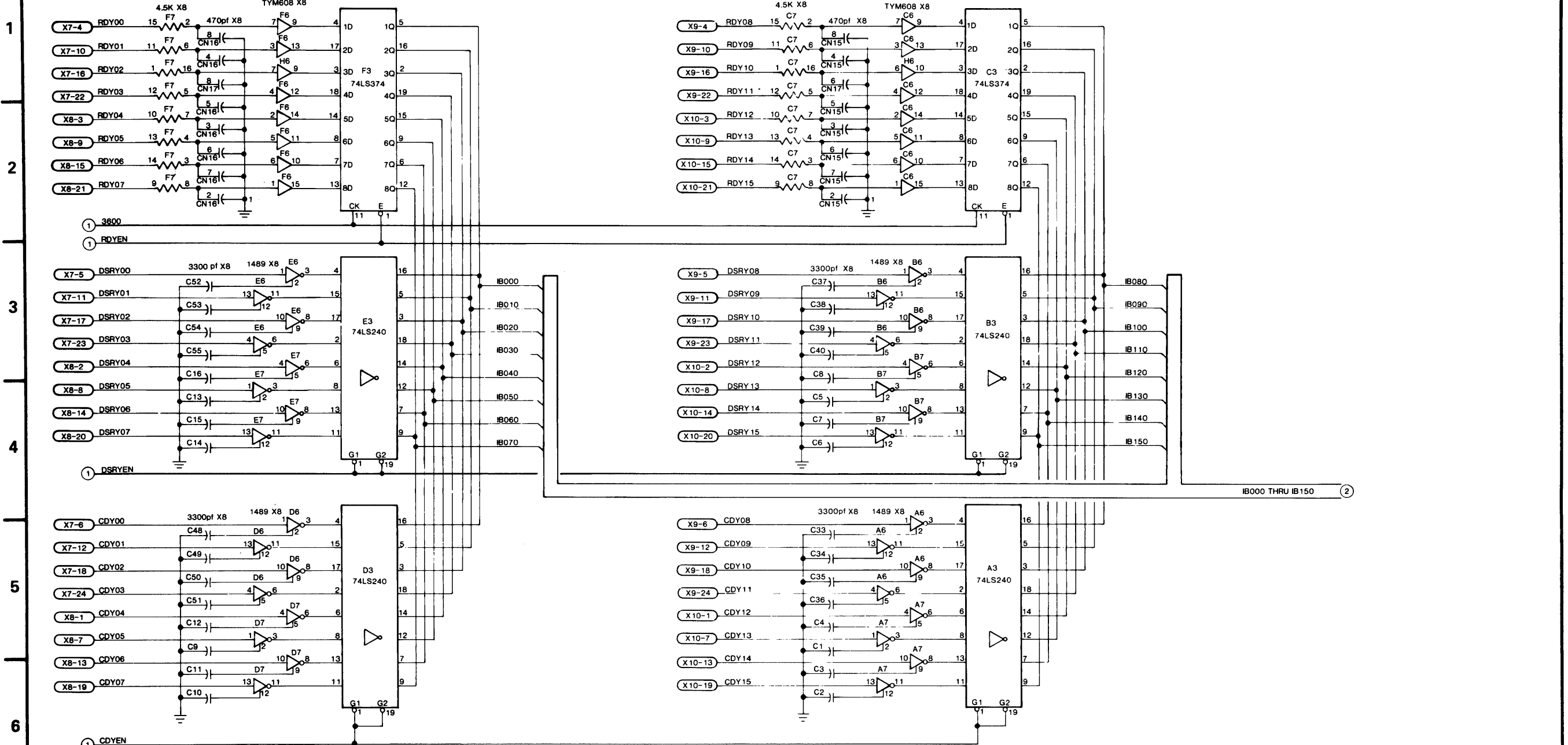




REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

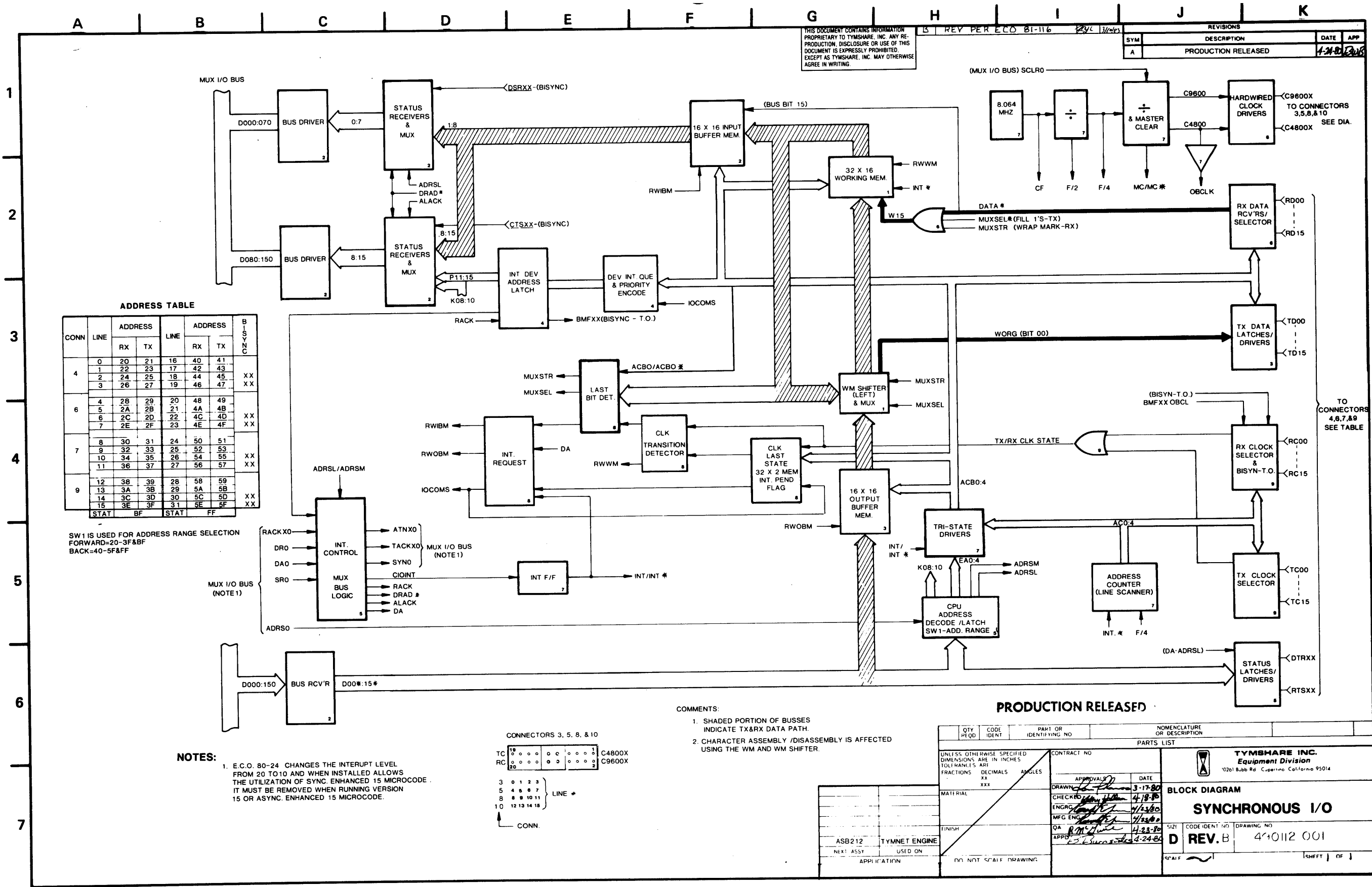
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	MATERIAL:	FINISH:	SCHEMATIC DRAWING ASYNCHRONOUS I/O II	
	NEXT ASSY:	USED ON:	QA:	SIZE: D CODE IDENT NO: REV B DRAWING NO: 440161-001
	APPLICATION:	DO NOT SCALE DRAWING	APPD:	SCALE: ~ SHEET 6 OF 7

REVISIONS		
SYM	DESCRIPTION	DATE
	SEE SHEET 1	



IB000 THRU IB150 (2)

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	MATERIAL FINISH TYMNET ENGINE NEXT ASSY USED ON	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES XX . XXX °	DRAWN CHECKED ENGRG MFG ENG	SCHEMATIC DRAWING ASYNCHRONOUS I/O II SIZE CODE IDENT NO DRAWING NO D REV B 440161-001
	APPLICATION	DO NOT SCALE DRAWING	APPD	SCALE SHEET 7 OF 7
	TOLERANCES ARE FRACTIONS DECIMALS ANGLES XX . XXX °			DATE 7-17-80 8/18/80 8/18/80



ADDRESS TABLE

CONN	LINE	ADDRESS		LINE	ADDRESS		B S Y N C
		RX	TX		RX	TX	
4	0	20	21	16	40	41	XX XX
	1	22	23	17	42	43	
	2	24	25	18	44	45	
	3	26	27	19	46	47	
6	4	28	29	20	48	49	XX XX
	5	2A	2B	21	4A	4B	
	6	2C	2D	22	4C	4D	
	7	2E	2F	23	4E	4F	
7	8	30	31	24	50	51	XX XX
	9	32	33	25	52	53	
	10	34	35	26	54	55	
	11	36	37	27	56	57	
9	12	38	39	28	58	59	XX XX
	13	3A	3B	29	5A	5B	
	14	3C	3D	30	5C	5D	
	15	3E	3F	31	5E	5F	
	STAT	BF	STAT	FF			

SW 1 IS USED FOR ADDRESS RANGE SELECTION
 FORWARD=20-3F&BF
 BACK=40-5F&FF

NOTES:
 1. E.C.O. 80-24 CHANGES THE INTERRUPT LEVEL FROM 20 TO 10 AND WHEN INSTALLED ALLOWS THE UTILIZATION OF SYNC. ENHANCED 15 MICROCODE. IT MUST BE REMOVED WHEN RUNNING VERSION 15 OR ASYNC. ENHANCED 15 MICROCODE.

CONNECTORS 3, 5, 8, & 10

TC	RC	CONNECTIONS	IC
19	0	0 0 0 0 1	C4800X
20	0	0 0 0 0 2	C9600X

3 0 1 2 3 } LINE #
 5 4 5 6 7 }
 8 8 9 10 11 }
 10 12 13 14 15 }

COMMENTS:
 1. SHADED PORTION OF BUSES INDICATE TX&RX DATA PATH.
 2. CHARACTER ASSEMBLY /DISASSEMBLY IS AFFECTED USING THE WM AND WM SHIFTER.

PRODUCTION RELEASED

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION

PARTS LIST

MATERIAL	FINISH	CONTRACT NO	APPROVALS	DATE

TYMSHARE INC. Equipment Division
 10261 Bobb Rd. Cupertino California 95014

BLOCK DIAGRAM
SYNCHRONOUS I/O

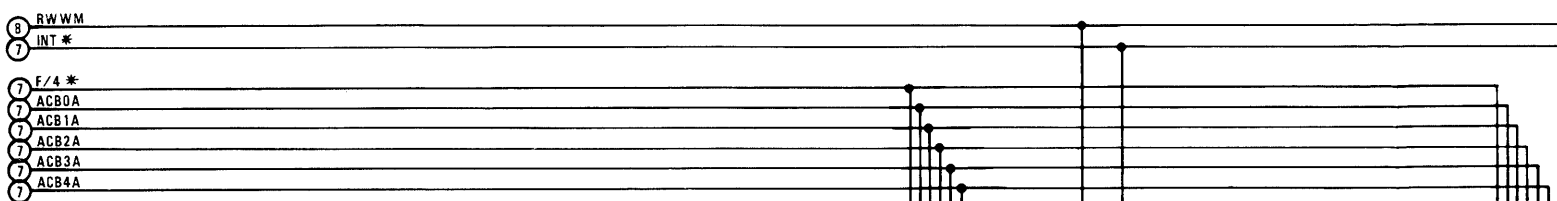
ASB212 TYMNET ENGINE
 NEXT ASSY USED ON APPLICATION

SCALE: 1" = 1" (IMPLYING)
 DO NOT SCALE DRAWING

CONTRACT NO: 410112 001
 REV. B
 DATE: 4-24-80

A B C D E F G H I J K

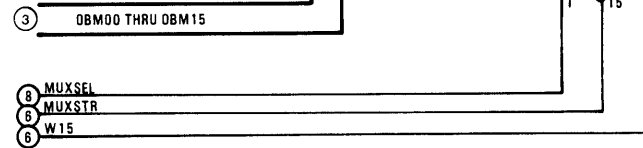
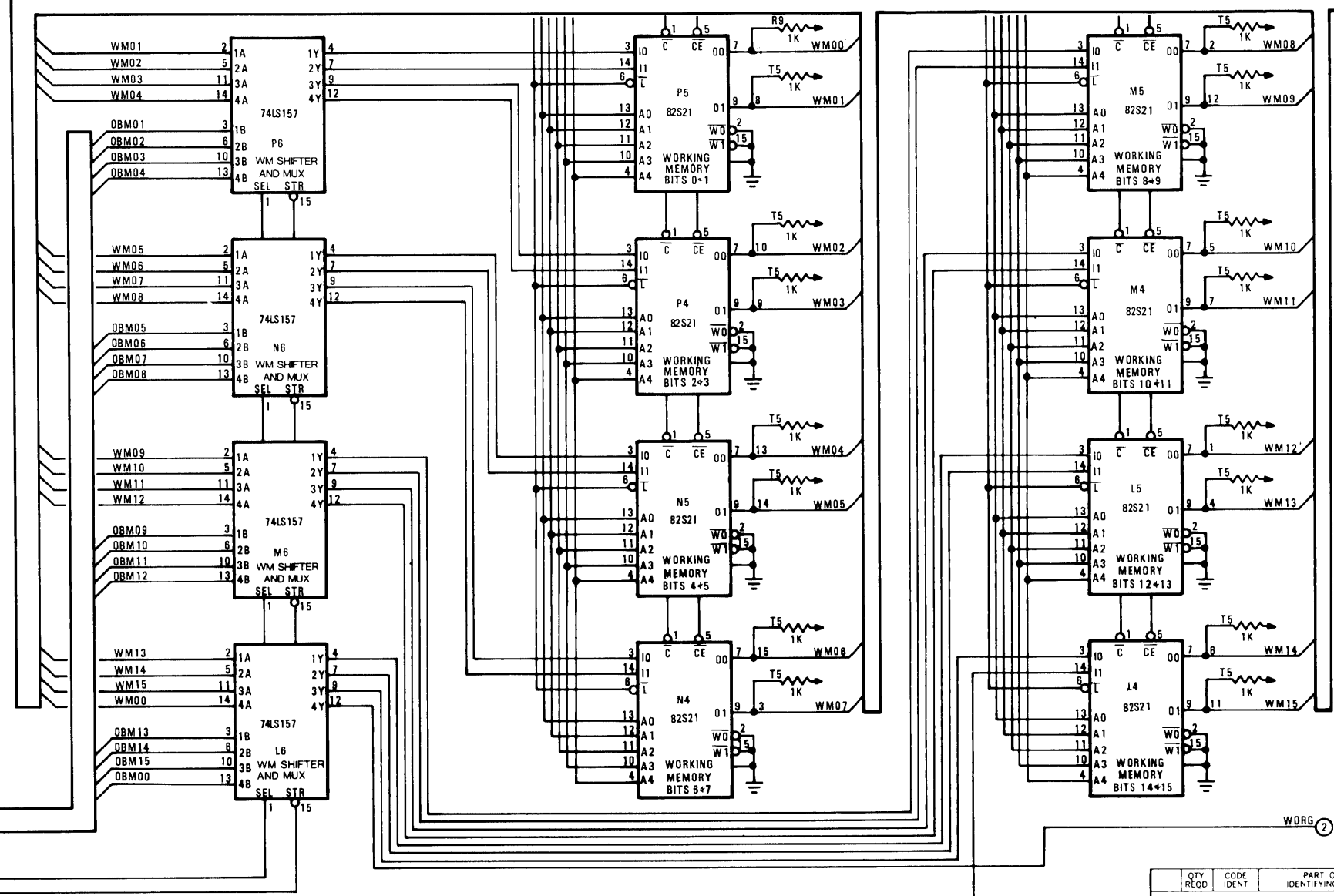
(WRITE ENABLE TO WORKING MEMORY)



1
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4
5
6
7

REVISIONS			
SYM	DESCRIPTION	DATE	APP
D	INC ECO NO. 79-57		JW
E	INC ECO NO. 79-75	11/80	JW
F	INC. E.C.O. #80-02	4/17/80	JW
F	INC ECO NO. 80-103, 80-112, 81-02	4-2-80	JW
G	REV PER ECO 81-116		
H	REV PER ECO 82-83	11-10-85	JW

WM00 THRU WM15 (2) 8



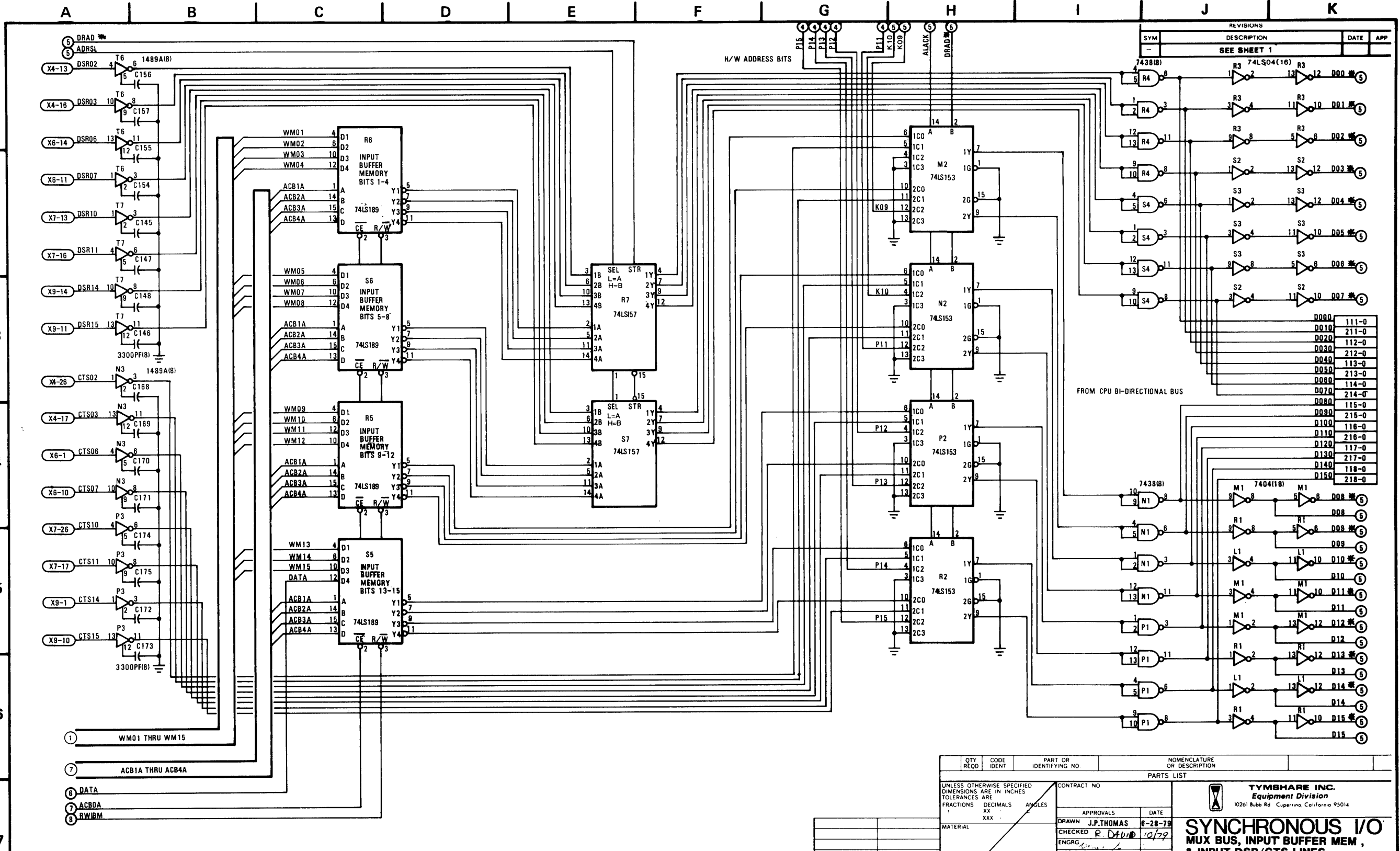
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QTY	CODE	PART OR	NOMENCLATURE
REQD	IDENT	IDENTIFYING NO	OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX			
CONTRACT NO		APPROVALS	
DRAWN J.P. THOMAS 8-25-79		DATE	
CHECKED R. DAVID 10/79			
ENGRG [Signature]			
MFG ENG [Signature]			
QA [Signature]			
APPROV [Signature]			
ASB 212-1/ASD TYMNET ENGINE		SIZE CODE IDENT NO DRAWING NO	
NEXT ASSY USED ON		D REV H 440112-001	
APPLICATION		SCALE SHEET 1 OF 10	

TYMSHARE INC.
Equipment Division
10201 Burb Rd, Cupertino, California 95014

SYNCHRONOUS I/O
WORKING MEMORY LOGIC
AND SHIFTER LOGIC

REV H 440112-001



REVISIONS			
SYM	DESCRIPTION	DATE	APP
SEE SHEET 1			

DATA	ADDRESS
D000	111-0
D010	211-0
D020	112-0
D030	212-0
D040	113-0
D050	213-0
D060	114-0
D070	214-0
D080	115-0
D090	215-0
D100	116-0
D110	216-0
D120	117-0
D130	217-0
D140	118-0
D150	218-0

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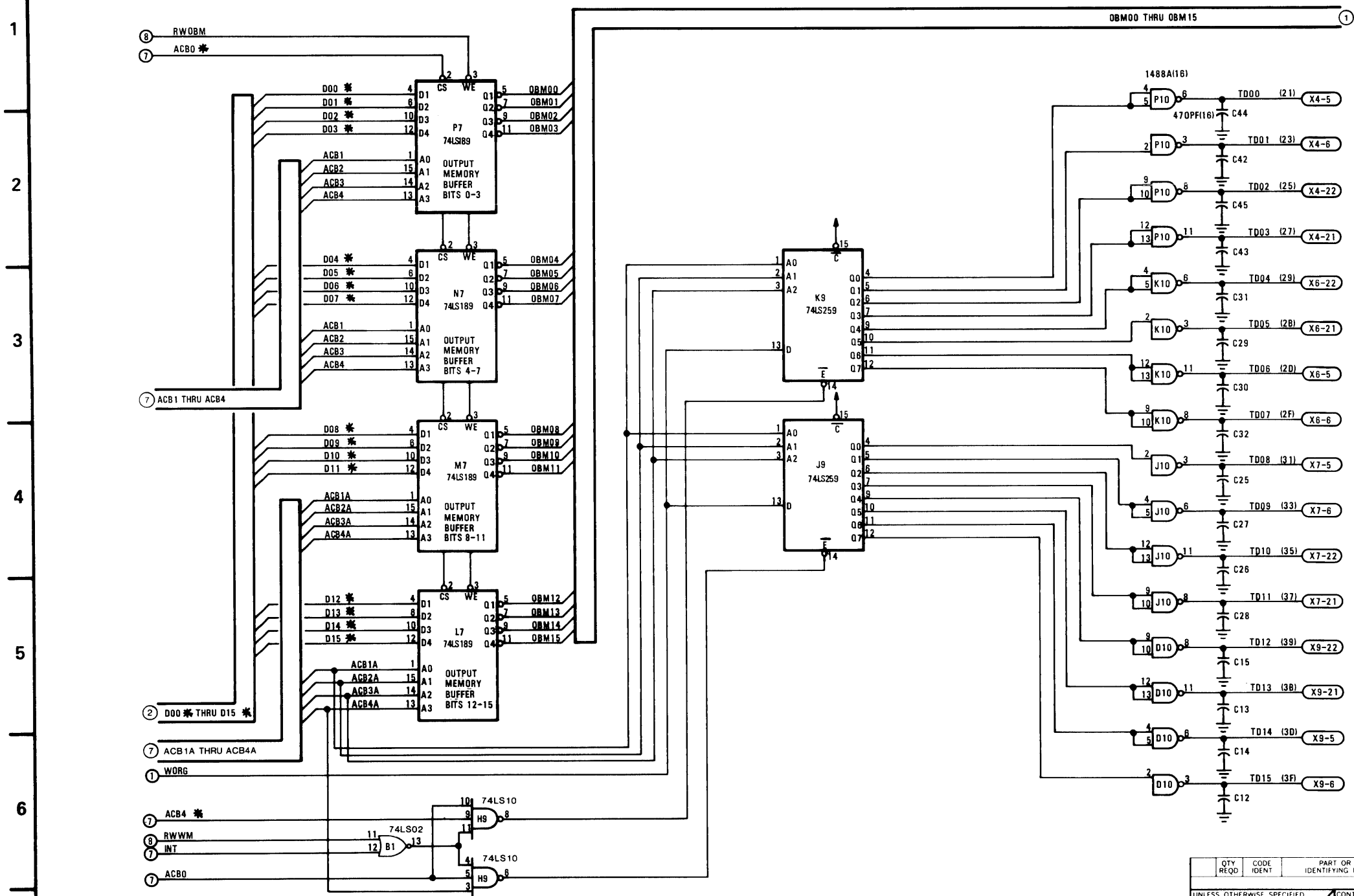
QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX .XXX .XXX			
MATERIAL		CONTRACT NO	
FINISH		APPROVALS	
ASB212-1/ASD TYMNET ENGINE		DRAWN J.P. THOMAS 8-28-78	
NEXT ASSY USED ON		CHECKED R. DAVID 10/78	
APPLICATION		ENGRG	
DO NOT SCALE DRAWING		MFG ENG	
		QA	
		APPD B.T. SUPERVISOR 4-2-80	
		DATE	
		8-28-78	
		SIZE	
		D REV H	
		CODE IDENT NO	
		440112-001	
		DRAWING NO	
		440112-001	
		SCALE	
		SHEET 2 OF 10	

TYMESHARE INC.
Equipment Division
10261 Bubb Rd. Cupertino, California 95014

**SYNCHRONOUS I/O
MUX BUS, INPUT BUFFER MEM,
& INPUT DSR/CTS LINES**

A B C D E F G H I J K

REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		



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PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES		CONTRACT NO	
XXX .XXX .XXX		APPROVALS DATE	
DRAWN <i>[Signature]</i>		7-2-77	
CHECKED <i>[Signature]</i>		10/79	
ENGRG <i>[Signature]</i>		1/21/80	
MFG ENG <i>[Signature]</i>		1/21/80	
QA <i>[Signature]</i>		1/21/80	
APPD <i>[Signature]</i>		4-21-80	
MATERIAL		SIZE CODE IDENT NO DRAWING NO	
FINISH		D REV H 440112-001	
ASB212-1/ASD TYMNET ENGINE		SCALE 1/8" = 1"	
NEXT ASSY USED ON		SHEET 3 OF 10	
APPLICATION		DO NOT SCALE DRAWING	

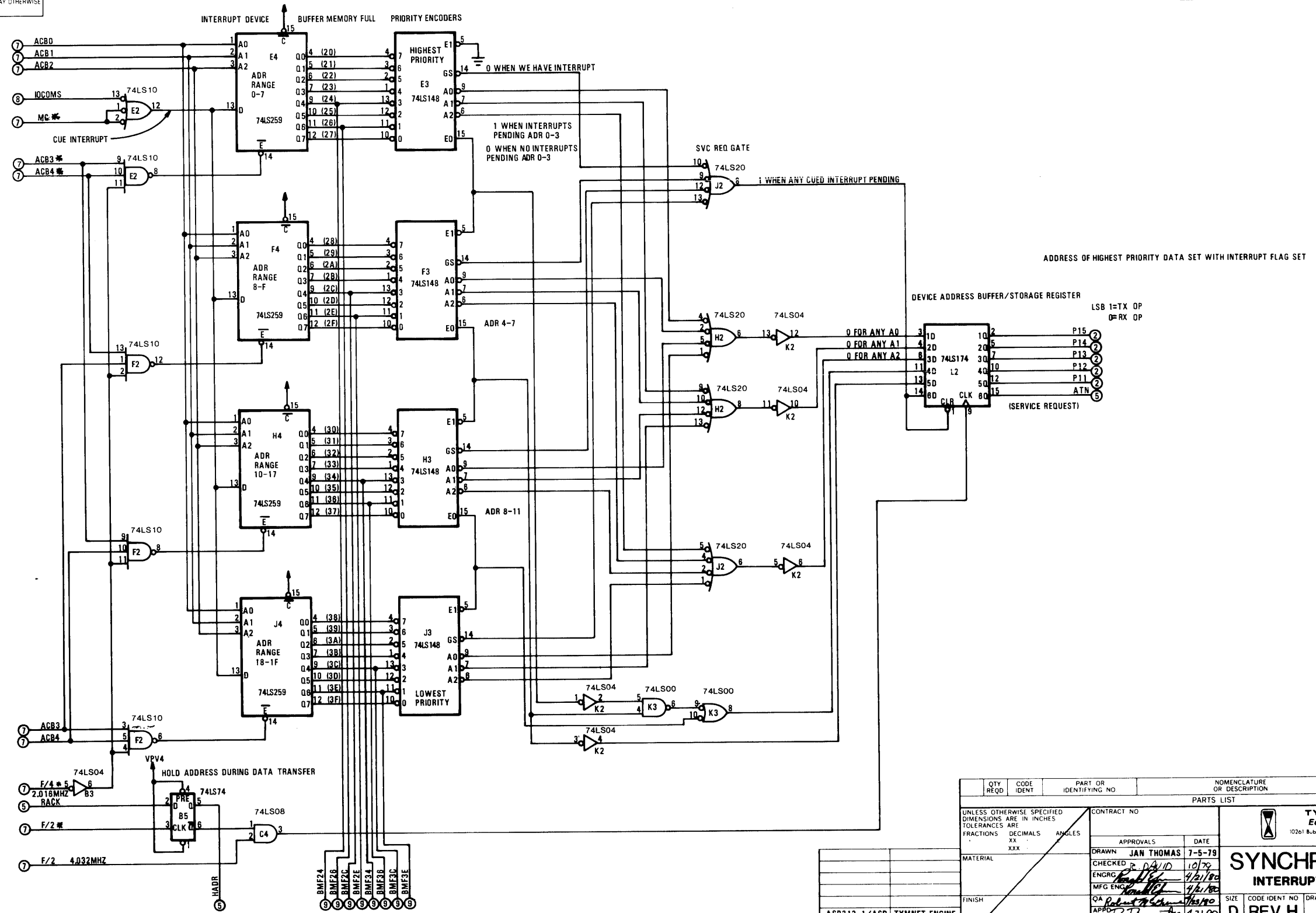
TYMSHARE INC.
Equipment Division
10261 Subb Rd Cupertino California 95014

**SYNCHRONOUS I/O
OUTPUT BUFFER MEM AND
XMIT DATA LATCHES / DRIVERS**

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REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

1
2
3
4
5
6
7



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 XXX .XXX .XXX		CONTRACT NO	
MATERIAL		APPROVALS	DATE
FINISH		DRAWN JAN THOMAS	7-5-79
NEXT ASSY USED ON		CHECKED R. DAVID	10/79
APPLICATION		ENGRG [Signature]	4/21/80
DO NOT SCALE DRAWING		MFG ENGR [Signature]	4/21/80
		QA [Signature]	4/21/80
		APPD [Signature]	4-21-80

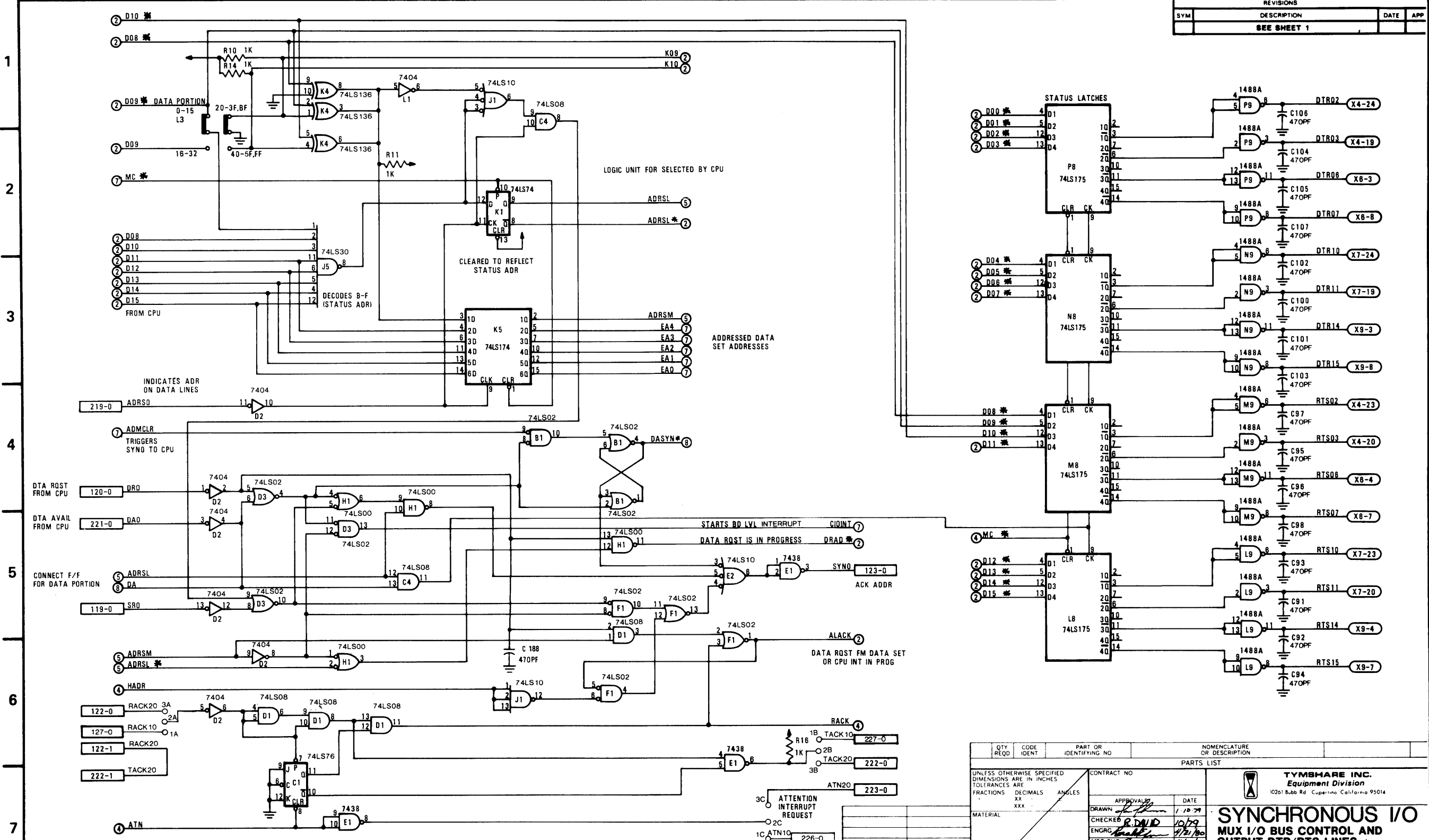
TYMSHARE INC.
Equipment Division
10261 Burbank Rd. Cupertino, California 95014

SYNCHRONOUS I/O
INTERRUPT PRIORITY LOGIC

SIZE: D CODE IDENT NO: REV H DRAWING NO: 440112-001

SCALE: 1" = 1" SHEET 4 OF 10

REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		



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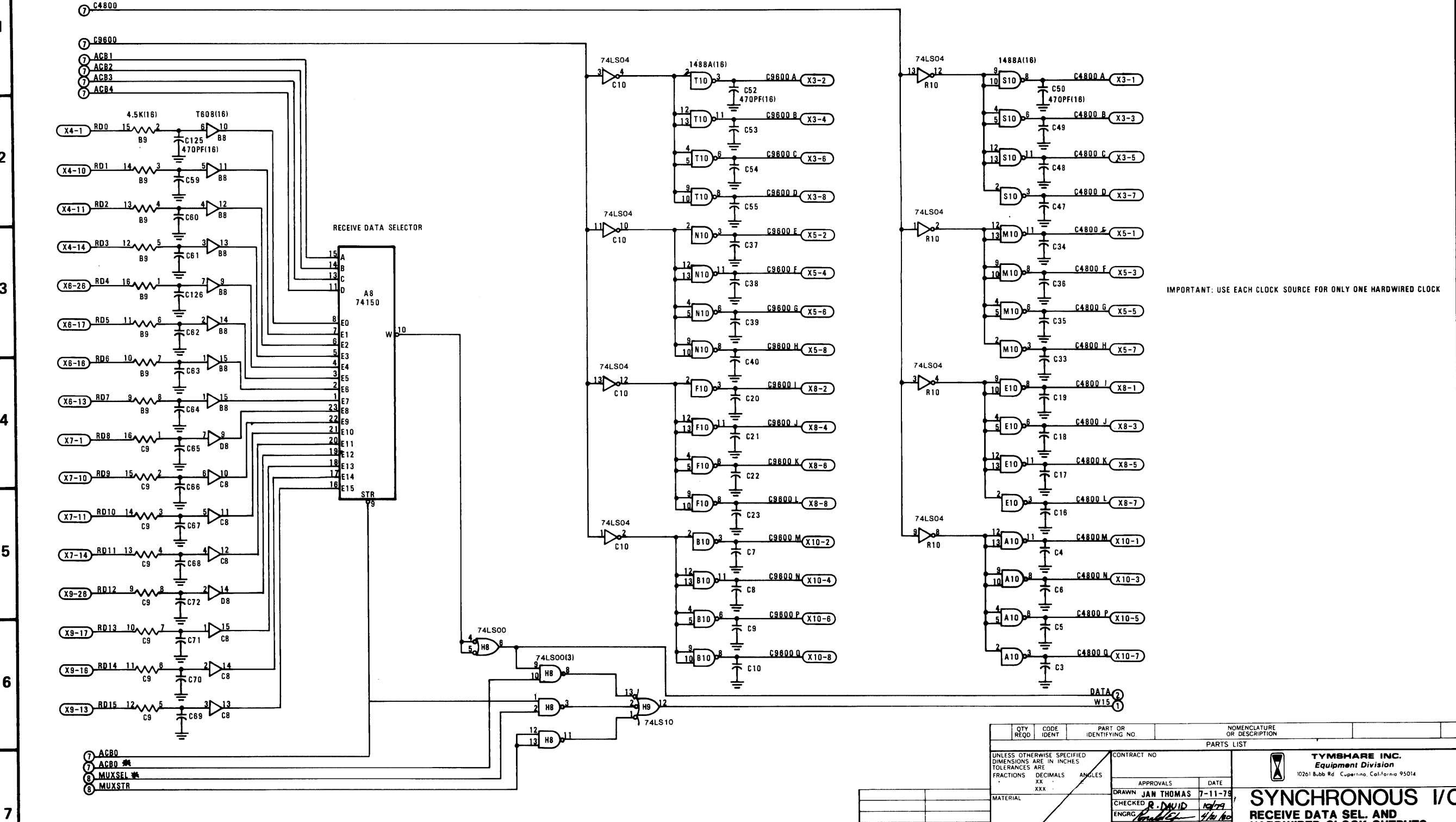
QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX .XX .XXX		CONTRACT NO	
MATERIAL		APPROVALS	DATE
FINISH		CHECKED <i>R. DAVID</i>	10/79
NEXT ASSY USED ON		ENGRG <i>R. DAVID</i>	11/21/80
APPLICATION		MFG ENG <i>R. DAVID</i>	11/21/80
DO NOT SCALE DRAWING		QA <i>R. DAVID</i>	12-80
		APPROV <i>R. DAVID</i>	12-80

TYMSHARE INC.
Equipment Division
10261 Burb Rd. Cupertino California 95014

SYNCHRONOUS I/O
MUX I/O BUS CONTROL AND
OUTPUT DTR/RTS LINES

SIZE CODE IDENT NO DRAWING NO
D REV H 440112-001

SCALE SHEET 5 OF 10

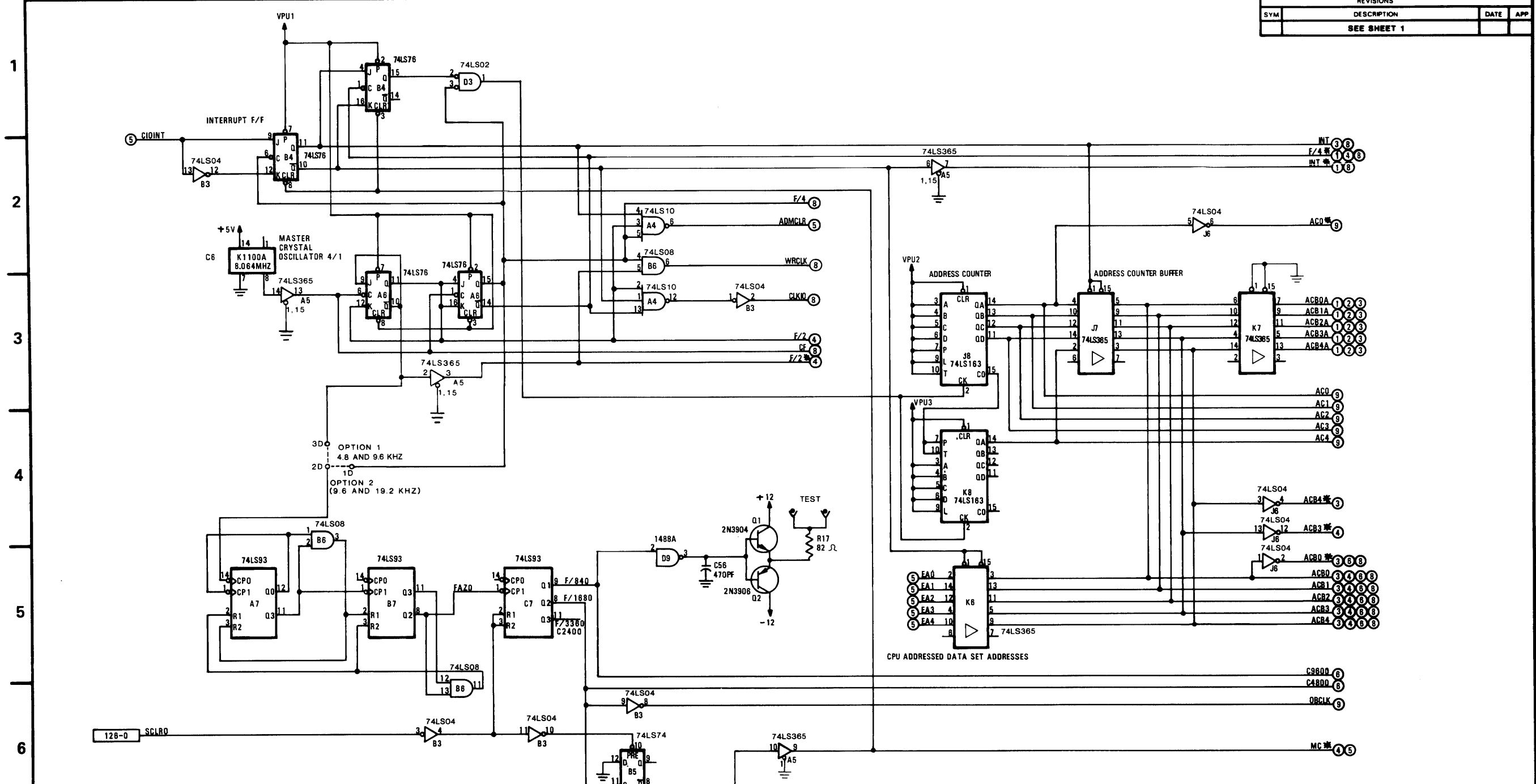


IMPORTANT: USE EACH CLOCK SOURCE FOR ONLY ONE HARDWIRED CLOCK

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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 XXX .XXX .XXX		CONTRACT NO.	
MATERIAL		APPROVALS	DATE
FINISH		DRAWN JAN THOMAS	7-11-78
NEXT ASSY USED ON		CHECKED R. DAVID	10/78
APPLICATION		ENGRG. [Signature]	4/11/80
		MFG ENGR [Signature]	4/11/80
		QA [Signature]	7/22/80
		APPD [Signature]	4/21/80
		TYMSHARE INC. Equipment Division 10261 Bubb Rd. Cupertino, California 95014	
		SYNCHRONOUS I/O	
		RECEIVE DATA SEL. AND HARDWIRED CLOCK OUTPUTS	
		SIZE D	CODE IDENT NO. REV H
		DRAWING NO. 440112-001	
		SCALE	SHEET 6 OF 10

REVISIONS			
SYM	DESCRIPTION	DATE	APP
SEE SHEET 1			

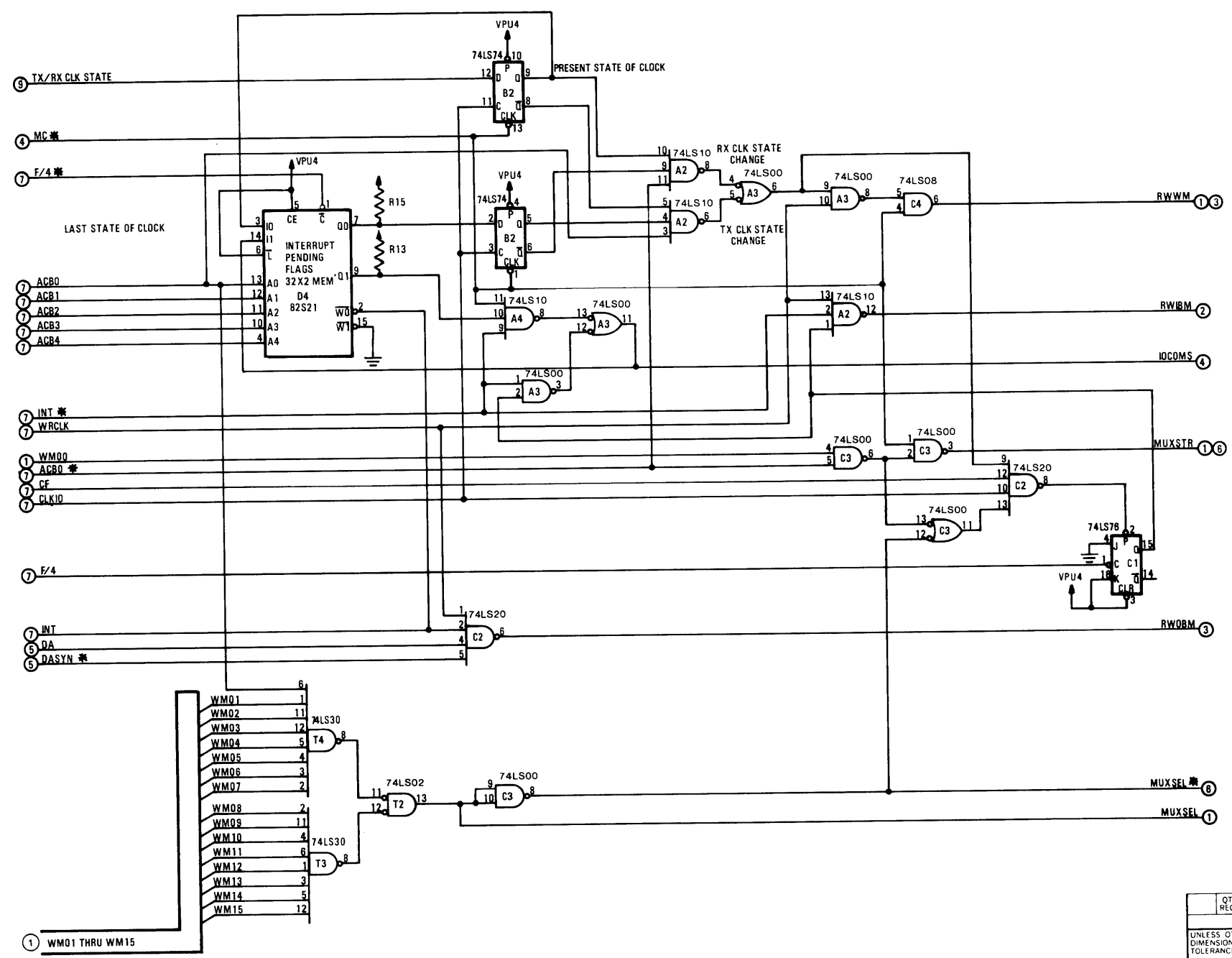


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QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES		CONTRACT NO.	
MATERIAL		APPROVALS	
FINISH		DATE	
NEXT ASSY USED ON		DRAWN JAN THOMAS 7-12-78	
APPLICATION		CHECKED R. DALLID 10/79	
DO NOT SCALE DRAWING		ENGRG. [Signature] 1/2/80	
		MFG ENGRG. [Signature] 1/2/80	
		QA Robert [Signature] 4/2/80	
		APPROV. [Signature] 4-21-80	
		TYMSHARE INC. Equipment Division 10261 Bubb Rd. Cupertino California 95014	
		SYNCHRONOUS I/O	
		MASTER CLOCK, ADDRESS	
		COUNTER, AND INT F/F	
		SIZE CODE IDENT NO	DRAWING NO
		D REV H	440112-001
		SCALE	SHEET 7 OF 10

REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

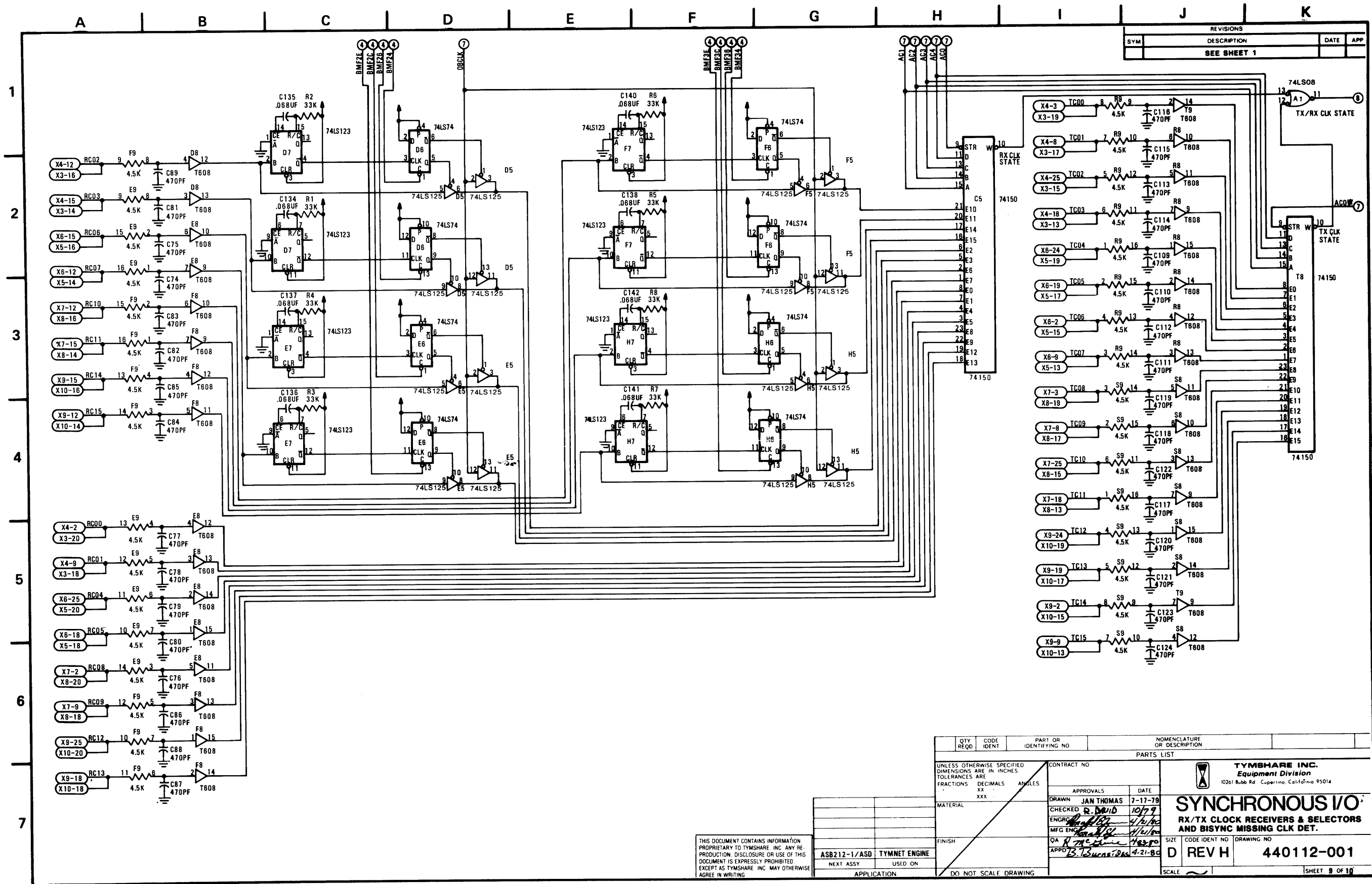
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QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX .XXX .XXX			
MATERIAL		CONTRACT NO	
FINISH		APPROVALS	
ASB212-1/ASD TYMNET ENGINE		DRAWN JAN THOMAS 7-13-79	
NEXT ASSY USED ON		CHECKED R. DAVID 10/29	
APPLICATION		ENGRG. B. B. 4/21/80	
		MFG ENG. B. B. 4/21/80	
		QA R. M. 4-21-80	
		APPD B. B. 4-21-80	
		DO NOT SCALE DRAWING	

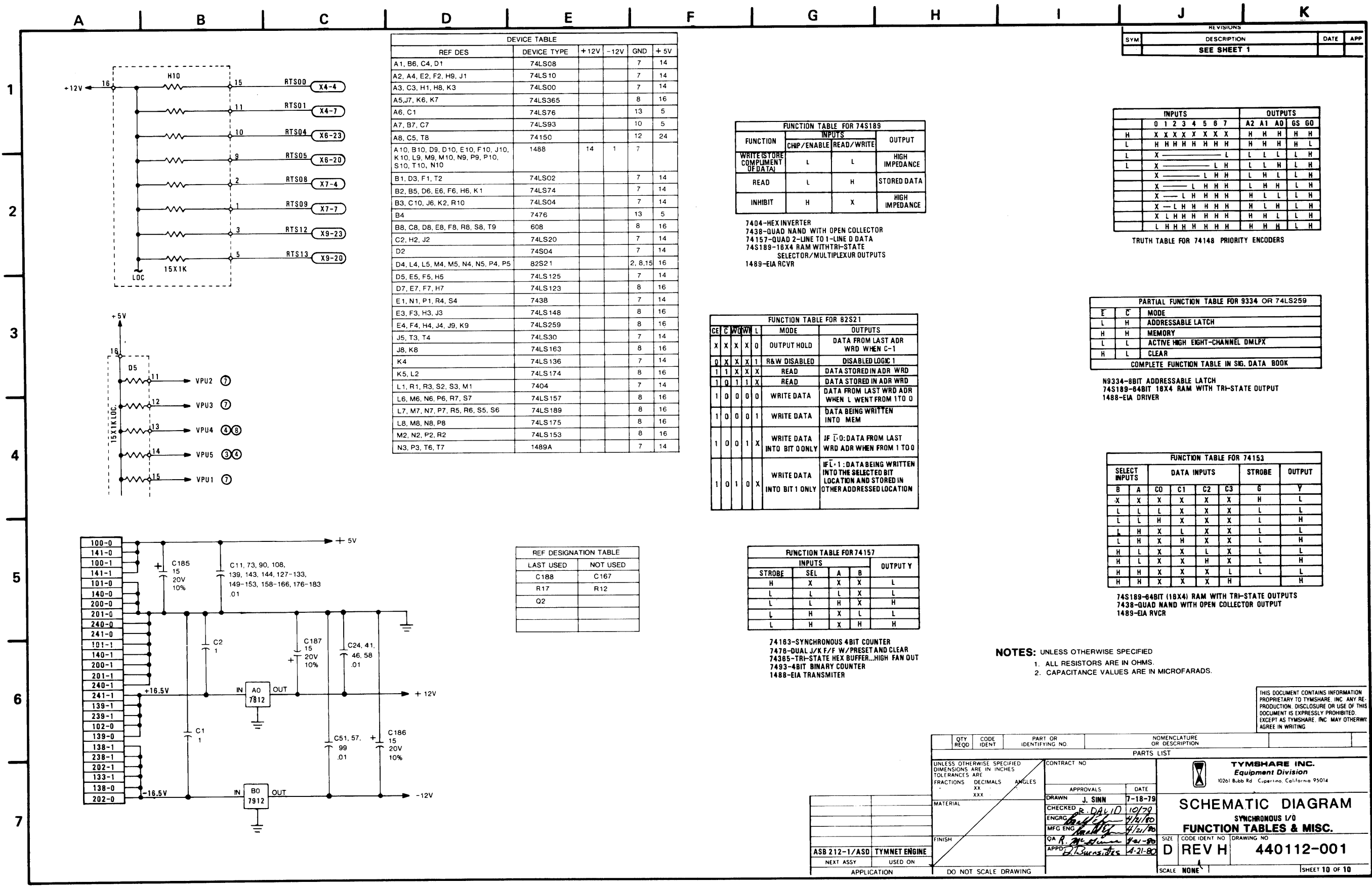
 10261 Bubb Rd. Cupertino, California 95014	
SYNCHRONOUS I/O INTERRUPT STEERING LOGIC AND LAST BIT DET.	
SIZE	CODE IDENT NO DRAWING NO
D	REV H 440112-001
SCALE	SHEET 8 of 10



REVISIONS		
SYM	DESCRIPTION	DATE
	SEE SHEET 1	

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 XXX			
MATERIAL		CONTRACT NO	
FINISH		APPROVALS	
DO NOT SCALE DRAWING		DATE	
ASB212-1/ASD TYMNET ENGINE		DRAWN JAN THOMAS 7-17-79	
NEXT ASSY USED ON		CHECKED R. DAVIS 10/7/79	
APPLICATION		ENGRG [Signature]	
		MFG ENGR [Signature]	
		QA [Signature]	
		APPRO [Signature]	
		SYNCHRONOUS I/O	
		RX/TX CLOCK RECEIVERS & SELECTORS	
		AND BISYNC MISSING CLK DET.	
		SIZE CODE IDENT NO DRAWING NO	
		D REV H 440112-001	
		SCALE	
		SHEET 9 OF 10	

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DEVICE TABLE					
REF DES	DEVICE TYPE	+12V	-12V	GND	+5V
A1, B6, C4, D1	74LS08			7	14
A2, A4, E2, F2, H9, J1	74LS10			7	14
A3, C3, H1, H8, K3	74LS00			7	14
A5, J7, K6, K7	74LS365			8	16
A6, C1	74LS76			13	5
A7, B7, C7	74LS93			10	5
A8, C5, T8	74150			12	24
A10, B10, D9, D10, E10, F10, J10, K10, L9, M9, M10, N9, P9, P10, S10, T10, N10	1488	14	1	7	
B1, D3, F1, T2	74LS02			7	14
B2, B5, D6, E6, F6, H6, K1	74LS74			7	14
B3, C10, J6, K2, R10	74LS04			7	14
B4	7476			13	5
B8, C8, D8, E8, F8, R8, S8, T9	608			8	16
C2, H2, J2	74LS20			7	14
D2	74S04			7	14
D4, L4, L5, M4, M5, N4, N5, P4, P5	82S21		2, 8, 15	16	
D5, E5, F5, H5	74LS125			7	14
D7, E7, F7, H7	74LS123			8	16
E1, N1, P1, R4, S4	7438			7	14
E3, F3, H3, J3	74LS148			8	16
E4, F4, H4, J4, J9, K9	74LS259			8	16
J5, T3, T4	74LS30			7	14
J8, K8	74LS163			8	16
K4	74LS136			7	14
K5, L2	74LS174			8	16
L1, R1, R3, S2, S3, M1	7404			7	14
L6, M6, N6, P6, R7, S7	74LS157			8	16
L7, M7, N7, P7, R5, R6, S5, S6	74LS189			8	16
L8, M8, N8, P8	74LS175			8	16
M2, N2, P2, R2	74LS153			8	16
N3, P3, T6, T7	1489A			7	14

REF DESIGNATION TABLE	
LAST USED	NOT USED
C188	C167
R17	R12
Q2	

FUNCTION TABLE FOR 74S189			
FUNCTION	INPUTS		OUTPUT
	CHP/ENABLE	READ/WRITE	
WRITE STORE COMPLEMENT OF DATA	L	L	HIGH IMPEDANCE
READ	L	H	STORED DATA
INHIBIT	H	X	HIGH IMPEDANCE

7404-HEX INVERTER
 7438-QUAD NAND WITH OPEN COLLECTOR
 74157-QUAD 2-LINE TO 1-LINE DATA SELECTOR/MULTIPLEXER OUTPUTS
 1489-EIA RCVR

FUNCTION TABLE FOR 82S21					
CE	C	MODE	OUTPUTS		
X	X	X	0	OUTPUT HOLD	DATA FROM LAST WRD WRD WHEN C-1
0	X	X	1	R&W DISABLED	DISABLED LOGIC 1
1	1	X	X	READ	DATA STORED IN ADR WRD
1	0	1	1	READ	DATA STORED IN ADR WRD
1	0	0	0	WRITE DATA	DATA FROM LAST WRD ADR WHEN L WENT FROM 1 TO 0
1	0	0	1	WRITE DATA	DATA BEING WRITTEN INTO MEM
1	0	0	1	WRITE DATA INTO BIT 0 ONLY	IF 0: DATA FROM LAST WRD ADR WHEN FROM 1 TO 0
1	0	1	0	WRITE DATA INTO BIT 1 ONLY	IF 1: DATA BEING WRITTEN INTO THE SELECTED BIT LOCATION AND STORED IN OTHER ADDRESSED LOCATION

FUNCTION TABLE FOR 74157				
STROBE	INPUTS			OUTPUT Y
	SEL	A	B	
H	X	X	X	L
L	L	L	X	L
L	L	H	X	H
L	H	X	L	L
L	H	X	H	H

74183-SYNCHRONOUS 4BIT COUNTER
 7476-DUAL J/K F/F W/PRESET AND CLEAR
 74385-TRI-STATE HEX BUFFER...HIGH FAN OUT
 7493-4BIT BINARY COUNTER
 1488-EIA TRANSMITTER

REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

INPUTS		OUTPUTS											
	0	1	2	3	4	5	6	7	A2	A1	A0	GS	GO
H	X	X	X	X	X	X	X	X	H	H	H	H	H
L	H	H	H	H	H	H	H	H	H	H	H	H	L
L	X	X	X	X	X	X	X	X	L	L	L	L	H
L	X	X	X	X	X	X	X	X	L	L	H	L	H
X	X	X	X	X	X	X	X	X	L	H	L	L	H
X	X	X	X	X	X	X	X	X	L	H	H	L	H
X	X	X	X	X	X	X	X	X	L	H	H	L	H
X	X	X	X	X	X	X	X	X	L	H	H	L	H
X	X	X	X	X	X	X	X	X	L	H	H	L	H
X	X	X	X	X	X	X	X	X	L	H	H	L	H
X	X	X	X	X	X	X	X	X	L	H	H	L	H

TRUTH TABLE FOR 74148 PRIORITY ENCODERS

PARTIAL FUNCTION TABLE FOR 9334 OR 74LS259		
E	C	MODE
L	H	ADDRESSABLE LATCH
H	H	MEMORY
L	L	ACTIVE HIGH EIGHT-CHANNEL DMLPX
H	L	CLEAR

9334-8BIT ADDRESSABLE LATCH
 74S189-84BIT 18X4 RAM WITH TRI-STATE OUTPUT
 1488-EIA DRIVER

FUNCTION TABLE FOR 74153							
SELECT INPUTS		DATA INPUTS			STROBE	OUTPUT	
B	A	C0	C1	C2	C3	G	Y
X	X	X	X	X	X	H	L
L	L	L	X	X	X	L	L
L	L	H	X	X	X	L	H
L	H	X	L	X	X	L	L
L	H	X	H	X	X	L	H
H	L	X	X	L	X	L	L
H	L	X	X	H	X	L	H
H	H	X	X	X	L	L	L
H	H	X	X	X	H	L	H

74S189-84BIT (18X4) RAM WITH TRI-STATE OUTPUTS
 7438-QUAD NAND WITH OPEN COLLECTOR OUTPUT
 1488-EIA RCVR

NOTES: UNLESS OTHERWISE SPECIFIED
 1. ALL RESISTORS ARE IN OHMS.
 2. CAPACITANCE VALUES ARE IN MICROFARADS.

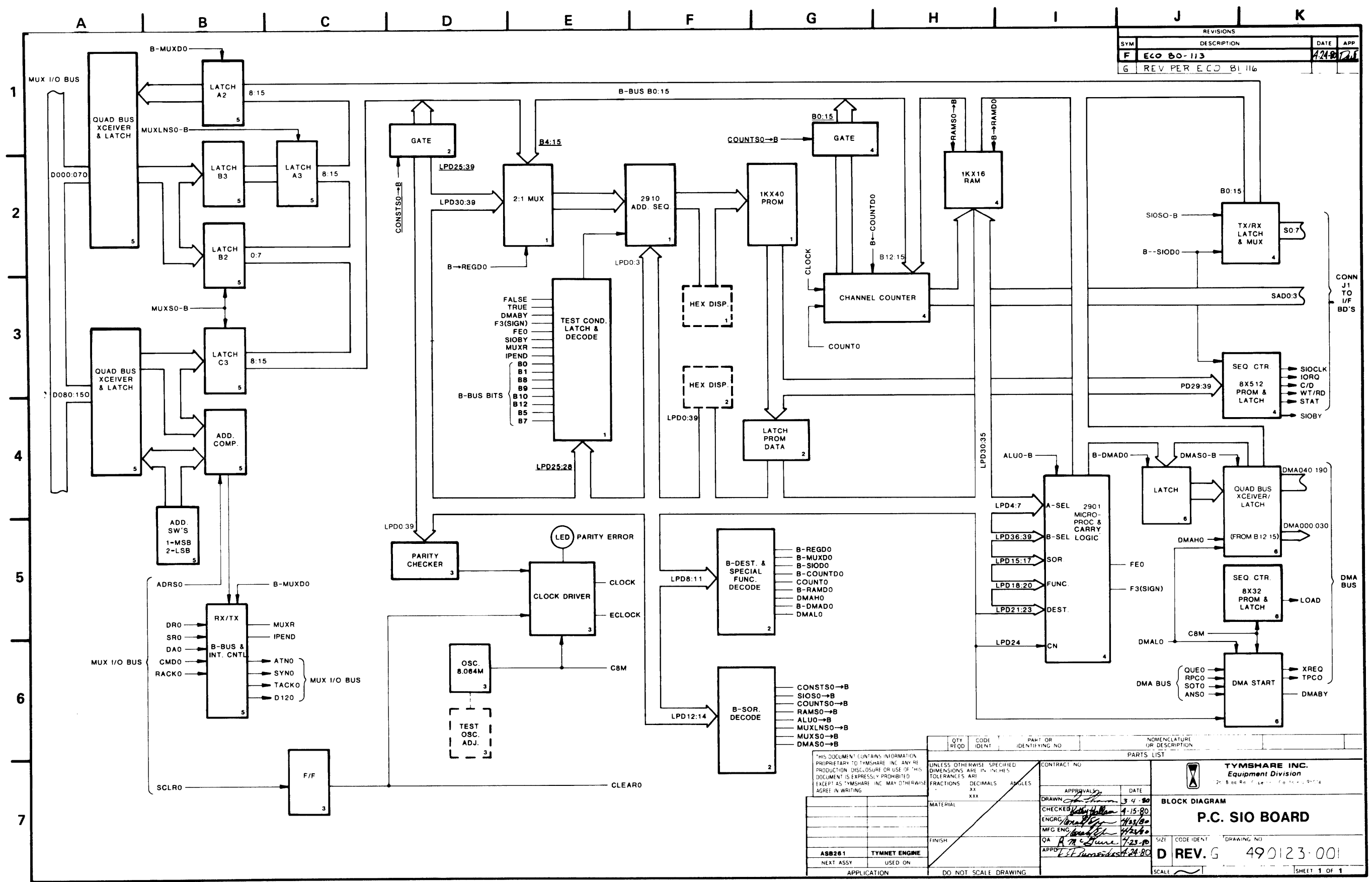
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PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES		CONTRACT NO	
MATERIAL		APPROVALS DATE	
FINISH		DRAWN J. SINN 7-18-79	
ASB 212-1/ASD TYMNET ENGINE		CHECKED R. DALYD 10/79	
NEXT ASSY USED ON		ENGRG R. DALYD 4/14/80	
APPLICATION		MFG ENG R. DALYD 4/21/80	
DO NOT SCALE DRAWING		QA R. McQuinn 4/21/80	
		APPROV L. J. Sussman 4-21-80	
		DATE 4-21-80	
		SCALE NONE	
		SHEET 10 OF 10	

TYMSHARE INC.
 Equipment Division
 10201 Babb Rd. Cupertino, California 95014

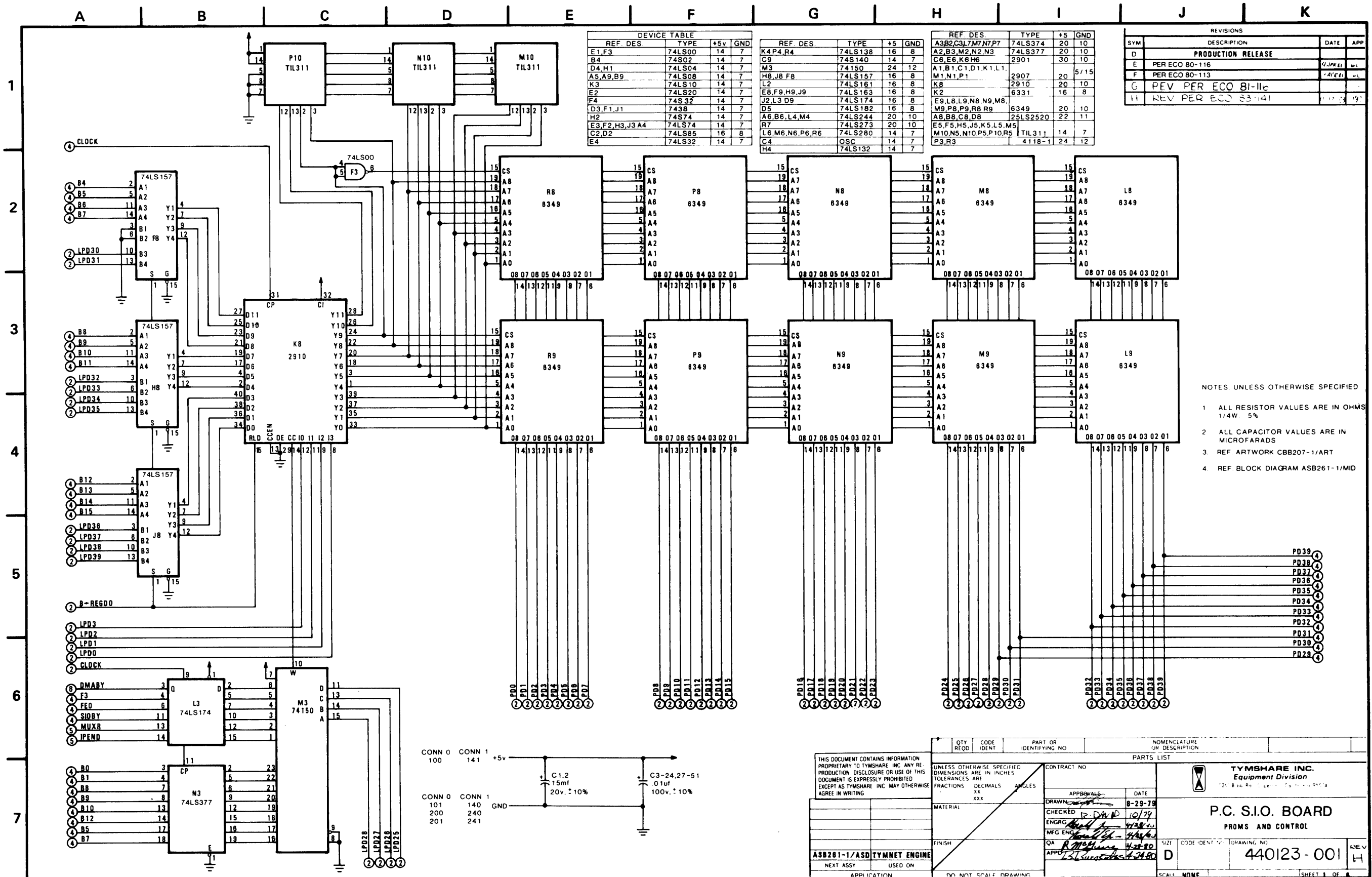
SCHEMATIC DIAGRAM
 SYNCHRONOUS I/O
FUNCTION TABLES & MISC.

SIZE CODE IDENT NO DRAWING NO
D REV H 440112-001



REVISIONS			
SYM	DESCRIPTION	DATE	APP
F	ECO 80-113	4-24-80	
G	REV PER ECO 81-116		

PARTS LIST		NOMENCLATURE OR DESCRIPTION	
QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	
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CONTRACT NO		APPROVALS	
DRAWN		DATE	
CHECKED		1-15-80	
ENGRG		11-23-80	
MFG ENG		11-23-80	
QA		7-23-80	
APPROV		1-24-80	
ASB261 TYMNET ENGINE		BLOCK DIAGRAM	
NEXT ASSY USED ON		P.C. SIO BOARD	
APPLICATION		DRAWING NO	
DO NOT SCALE DRAWING		D REV. G 490123-001	
SCALE		SHEET 1 OF 1	



REF. DES.	TYPE	+5V	GND
E1,F3	74LS00	14	7
B4	74S02	14	7
D4,H1	74LS04	14	7
A5,A9,B9	74LS08	14	7
K3	74LS10	14	7
E2	74LS20	14	7
F4	74S32	14	7
D3,F1,J1	7438	14	7
H2	74S74	14	7
E3,F2,H3,J3,A4	74LS74	14	7
C2,D2	74LS85	16	8
E4	74LS32	14	7

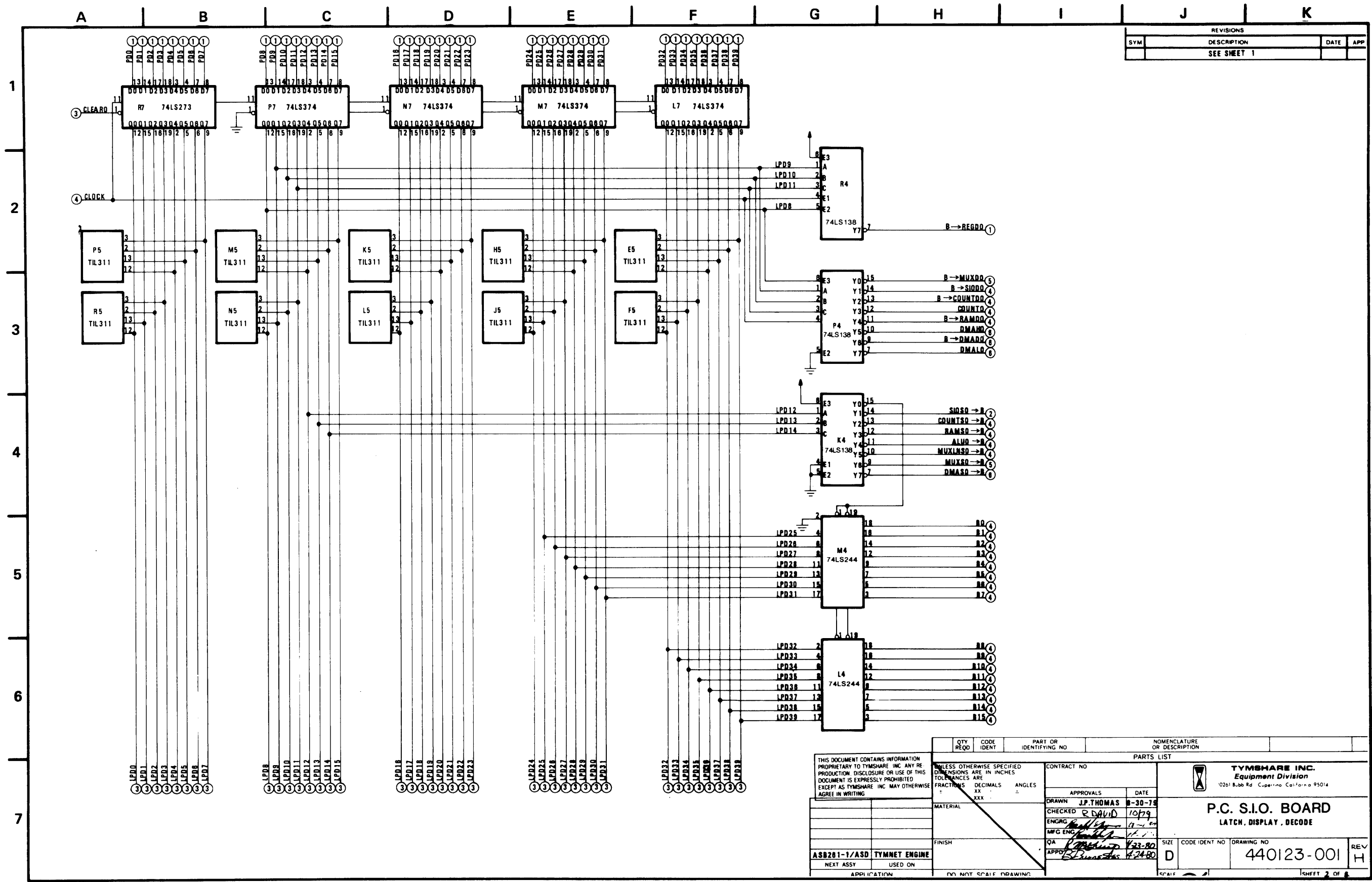
REF. DES.	TYPE	+5	GND
K4,P4,R4	74LS138	16	8
C9	74S140	14	7
M3	74LS150	24	12
H8,J8,F8	74LS157	16	8
L2	74LS161	16	8
E8,F9,H9,J9	74LS163	16	8
J2,L3,D9	74LS174	16	8
D5	74LS182	16	8
A6,B6,L4,M4	74LS244	20	10
R7	74LS273	20	10
L6,M6,N6,P6,R6	74LS280	14	7
C4	OSC	14	7
H4	74LS132	14	7

REF. DES.	TYPE	+5	GND
A3,B3,C3,L7,M7,N7,P7	74LS374	20	10
A2,B3,M2,N2,N3	74LS377	20	10
C6,E6,K6,H6	2901	30	10
A1,B1,C1,D1,K1,L1	M1,N1,P1	2907	20 5/15
K8	2910	20	10
K2	6331	16	8
E9,L8,L9,N8,N9,M8	M9,P8,P9,R8,R9	6349	20 10
A8,B8,C8,D8	25LS2520	22	11
E5,F5,H5,J5,K5,L5,M5	M10,N10,P10,R10	4118-1	24 12
P3,R3	TIL311	14	7

REVISIONS			
SYM	DESCRIPTION	DATE	APP
D	PRODUCTION RELEASE		
E	PER ECO 80-116	4/28/80	
F	PER ECO 80-113	5/1/80	
G	REV PER ECO 81-116		
H	REV PER ECO 83-141	7/13/83	

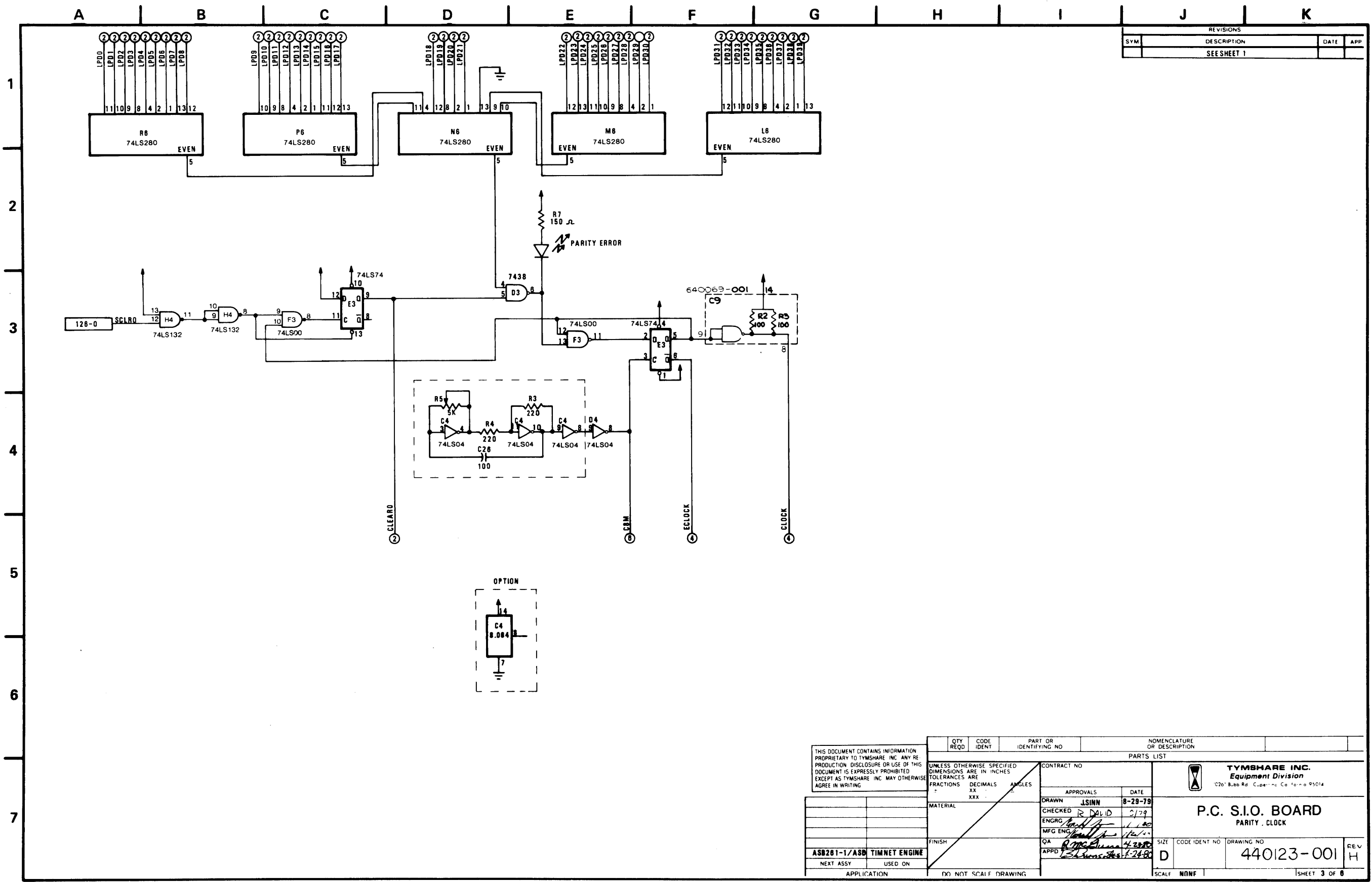
- NOTES UNLESS OTHERWISE SPECIFIED
- ALL RESISTOR VALUES ARE IN OHMS
1/4W 5%
 - ALL CAPACITOR VALUES ARE IN MICROFARADS
 - REF ARTWORK CBB207-1/ART
 - REF BLOCK DIAGRAM ASB261-1/MID

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
CONTRACT NO		DATE	
DRAWN		8-29-79	
CHECKED		10/79	
ENGRG		4/28/80	
MFG ENG		4/28/80	
QA		4/28/80	
APPD		4/28/80	
MATERIAL		FINISH	
FRAC		DECIMALS	
XXX		ANGLES	
XXX		XXX	
ASB261-1/ASD TYMNET ENGINE NEXT ASSY USED ON APPLICATION DO NOT SCALE DRAWING			
TYMSHARE INC. Equipment Division		P.C. S.I.O. BOARD	
PROMS AND CONTROL		440123-001	
SCALE NONE		SHEET 1 OF 1	

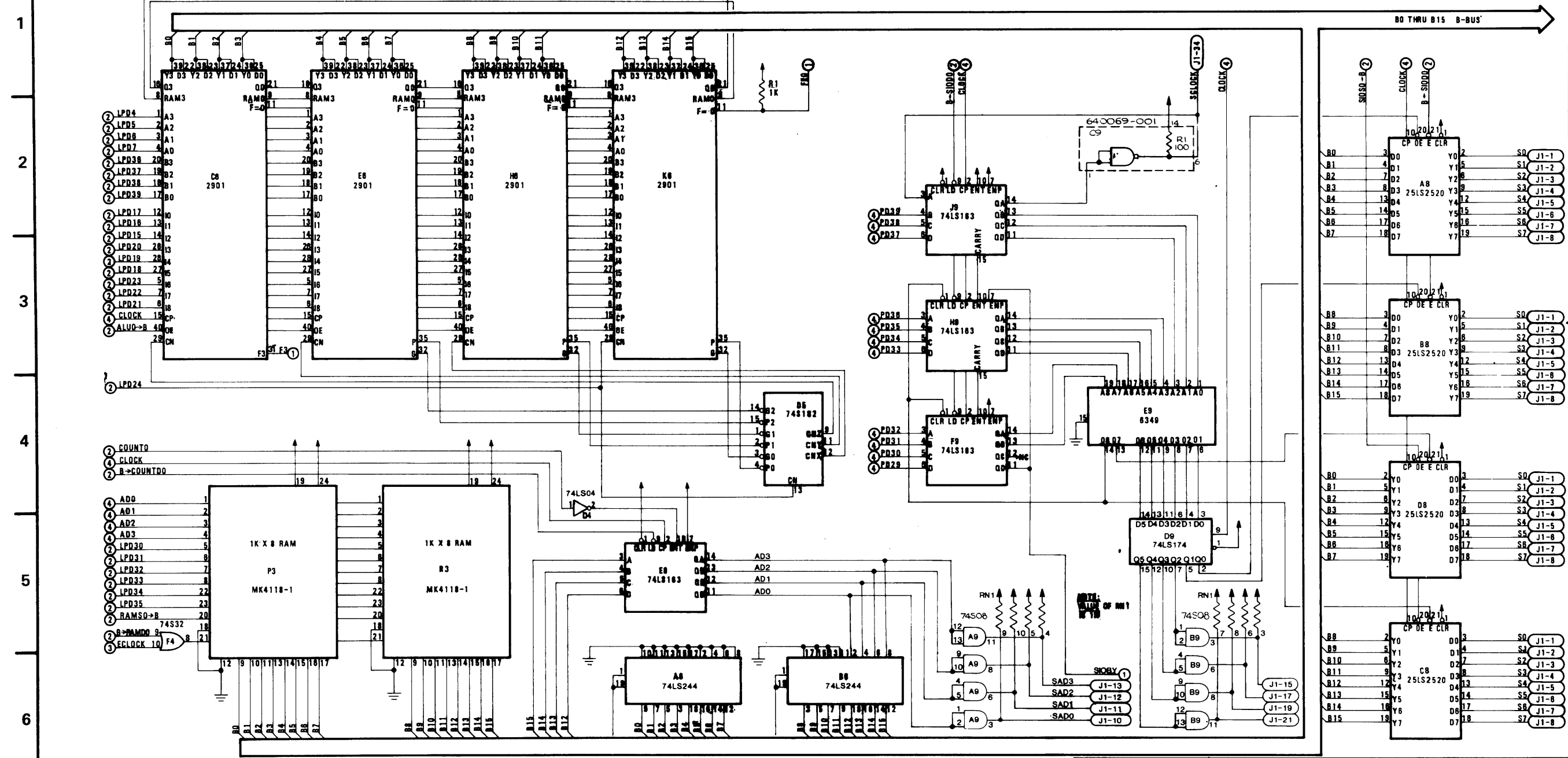


REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

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PARTS LIST				
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CONTRACT NO APPROVALS DRAWN: J.P. THOMAS 8-30-78 CHECKED: R. DAVID 10/79 ENGRG: [Signature] MFG ENG: [Signature] QA: [Signature] APPD: [Signature]		DATE DATE DATE DATE DATE DATE		
MATERIAL FINISH ASB201-1/ASD TYMNET ENGINE NEXT ASSY USED ON APPLICATION		TYMSHARE INC. Equipment Division 0261 Bubb Rd. Cupertino California 95014 P.C. S.I.O. BOARD LATCH, DISPLAY, DECODE SIZE: D CODE IDENT NO: 440123-001 DRAWING NO: 440123-001 REV: H SHEET 2 OF 2		



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		



J1 34 PIN CONNECTOR

1 THRU 8 ARE S0 THRU S7	18 IS WT/RD
9 IS GROUND	20 IS GROUND
10 THRU 13 ARE SADD THRU SADD3	21 IS STAT
14 IS GROUND	22 THRU 26 ARE GROUND
15 IS GND	27 IS -19
16 IS GROUND	28 IS +18
17 IS C/D	29 THRU 33 ARE +8
18 IS GROUND	34 IS SLOTTED

18 IS WT/RD
20 IS GROUND
21 IS STAT
22 THRU 26 ARE GROUND
27 IS -19
28 IS +18
29 THRU 33 ARE +8
34 IS SLOTTED

QTY	CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION

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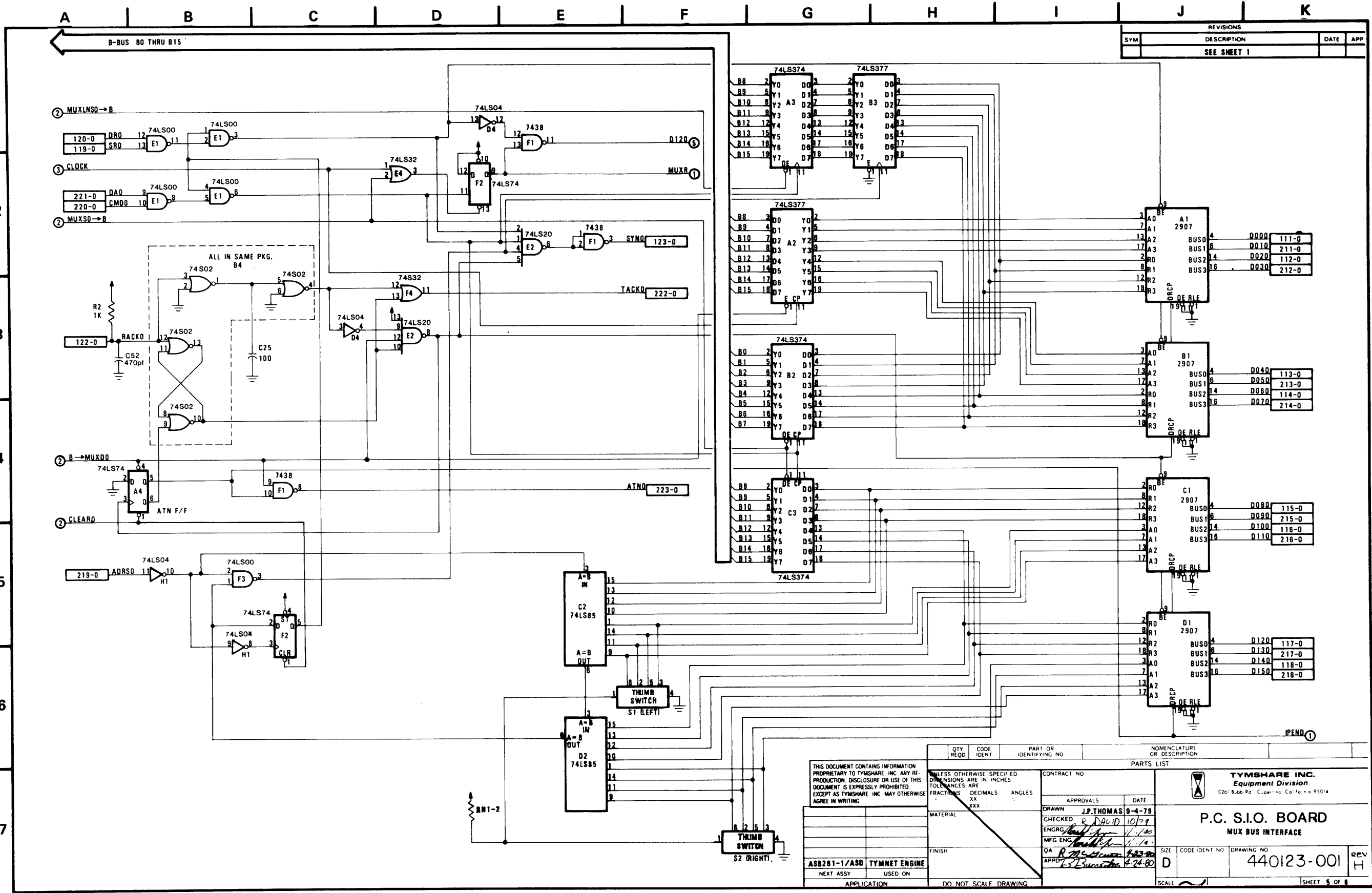
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TYMSHARE INC. Equipment Division 10201 Bob Rd. Cupertino, California 95014

P.C. S.I.O. BOARD
CABLE INTERFACE ALU AND RAM

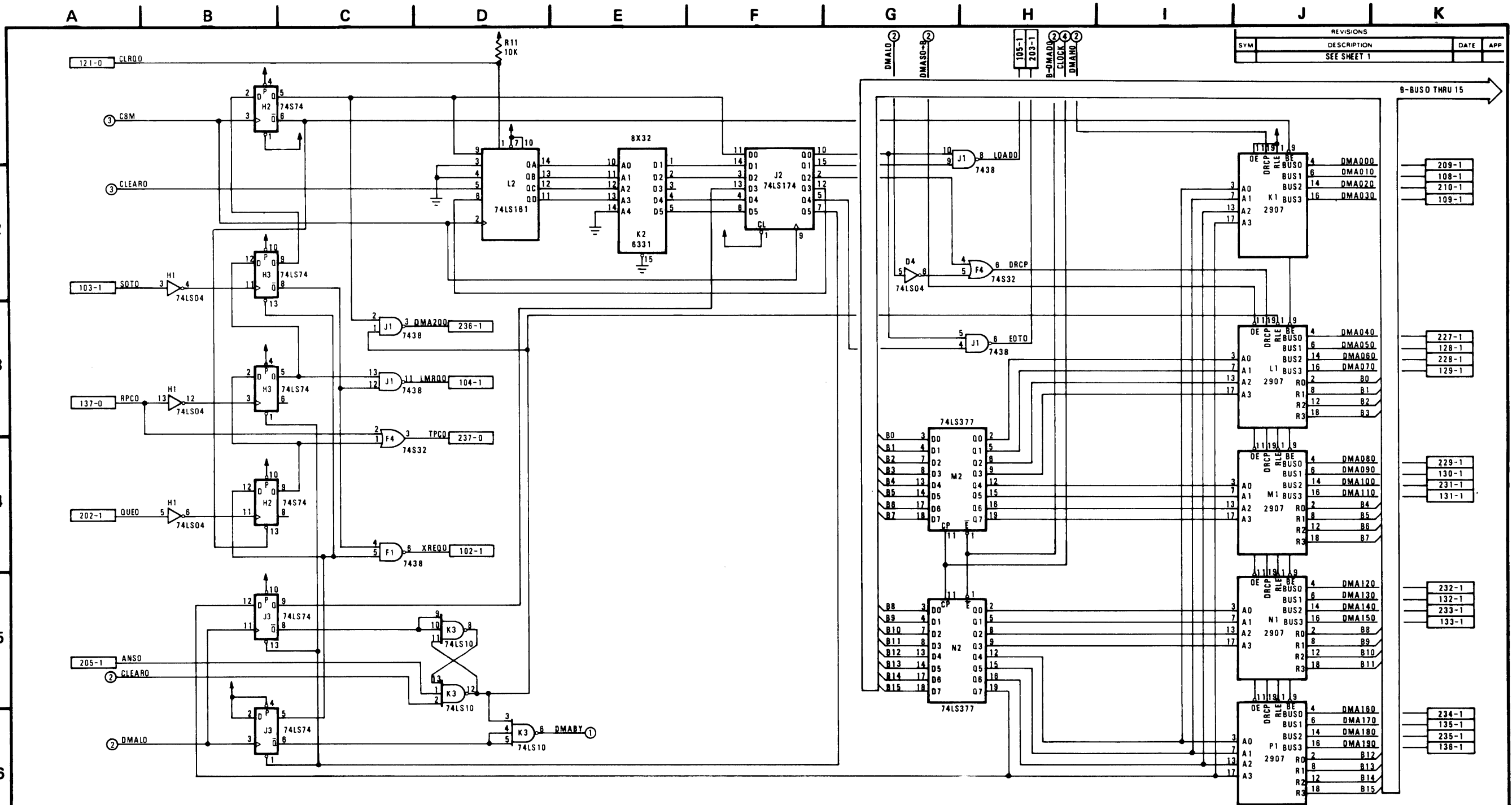
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SCALE DO NOT SCALE DRAWING SHEET 4 OF 8



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

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	MATERIAL FINISH APPLICATION NEXT ASSY USED ON DO NOT SCALE DRAWING	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES	DRAWN J.P. THOMAS 9-4-79 CHECKED R. DAVID 10/79 ENGRG. [Signature] 1/1/80 MFG ENG. [Signature] 1/1/80 QA [Signature] 4-23-80 APPR. [Signature] 4-24-80



REVISIONS			
SYM	DESCRIPTION	DATE	APP
	SEE SHEET 1		

QTY	CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	PARTS LIST	
				APPROVALS	DATE
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES xxx					
CONTRACT NO					
DRAWN J. SINN 9-5-79					
CHECKED R. D. H. 10/79					
ENGRG R. M. S. 11/79					
MFG ENG R. M. S. 12/79					
QA R. M. S. 1/80					
APPD P. S. B. 4-24-80					
ASB 281-1/ASD TYMNET ENGINE NEXT ASSY USED ON				TYMSHARE INC. Equipment Division 281-1/ASD P.C. S.I.O. BOARD DMA INTERFACE	
APPLICATION DO NOT SCALE DRAWING				SCALE: NONE SHEET 6 OF 8	

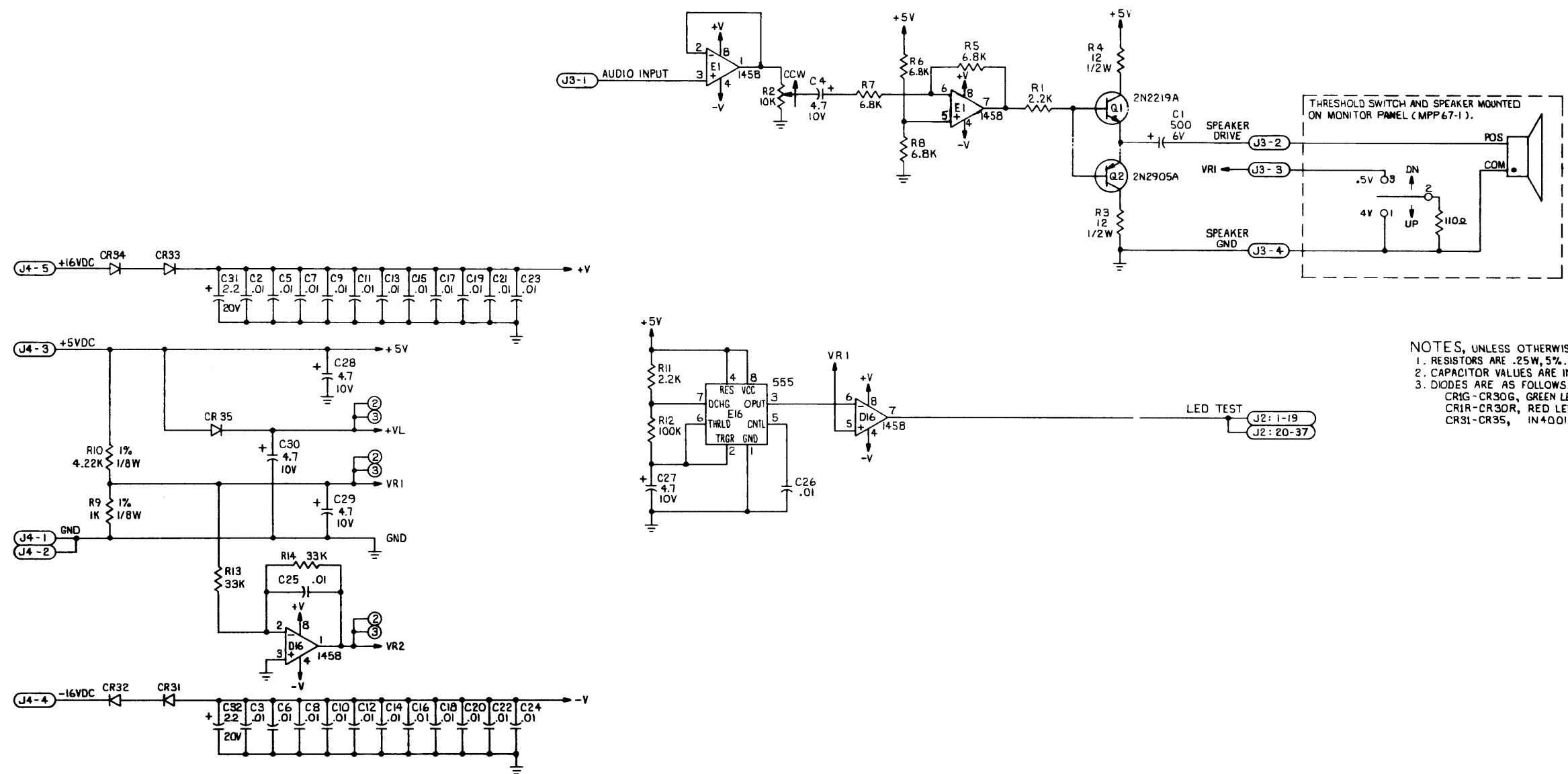
440123-001
 REV

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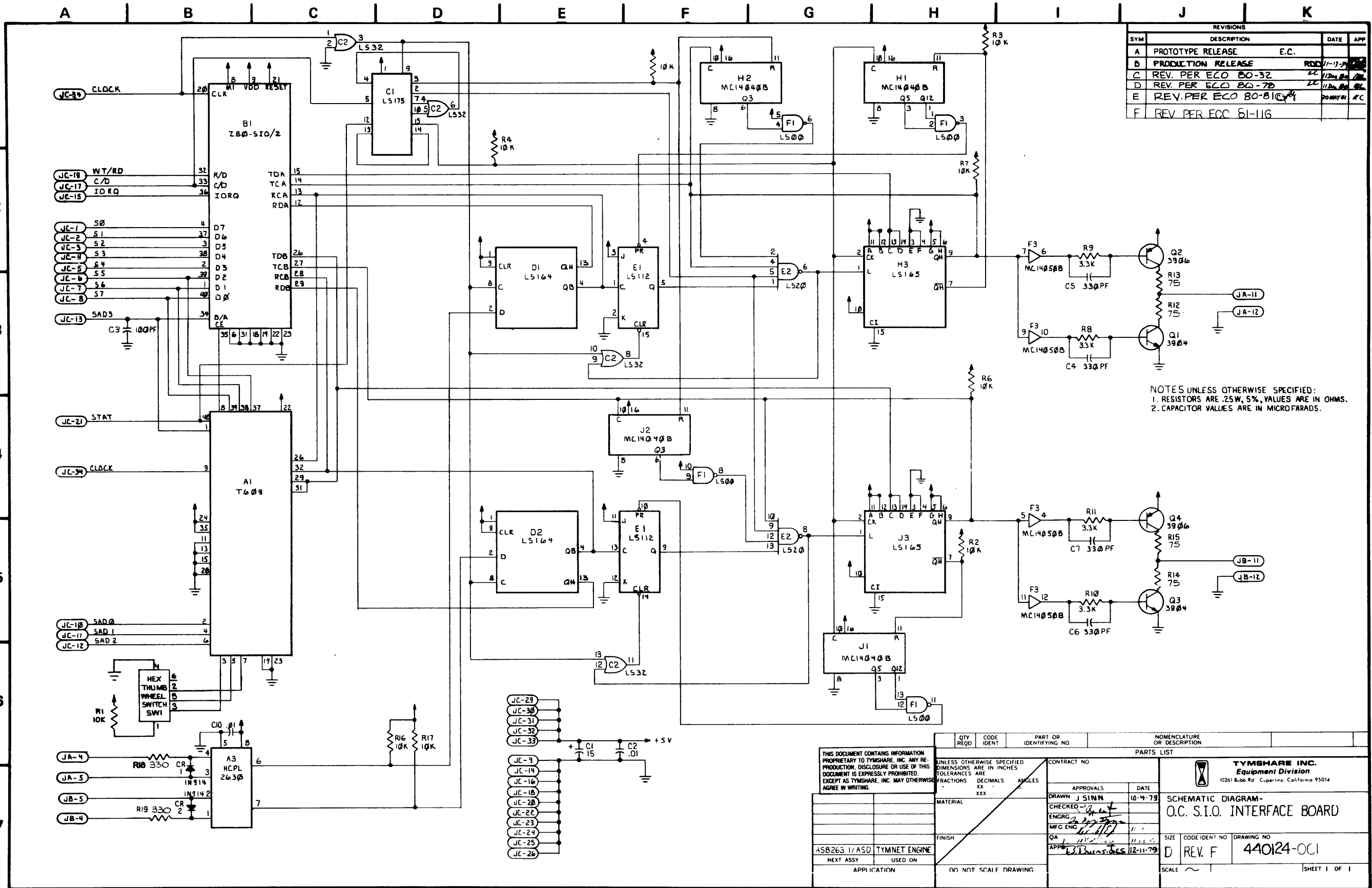
REVISIONS			
SYM	DESCRIPTION	DATE	APP
B	REDRAWN PER E.C.D. 79-47	E.C.	2-28-80
C	REV. PER ECO 81-75	ADL	5/4/81
D	REV PER ECO 81-116		



NOTES, UNLESS OTHERWISE SPECIFIED:
 1. RESISTORS ARE .25W, 5%. VALUES ARE IN OHMS.
 2. CAPACITOR VALUES ARE IN MICROFARADS.
 3. DIODES ARE AS FOLLOWS:
 CR1G-CR30G, GREEN LED, DDL5
 CR1R-CR30R, RED LED, DDL6
 CR31-CR35, IN4001, DDPI-4001

PRODUCTION RELEASED

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		CONTRACT NO	
XXX .		APPROVALS DATE	
MATERIAL		DRAWN E CYPRET 8-8-79	
FINISH		CHECKED [Signature] 12-13-79	
NEXT ASSY USED ON APPLICATION		ENGRG [Signature] 2-27-80	
DO NOT SCALE DRAWING		MFG ENO [Signature] 5/27/80	
		QA [Signature] 1/10/81	
		APPRO [Signature] 12-28-80	
		TYMSHARE INC. Equipment Division 10261 Bobb Rd. Cupertino, California 95014	
		SCHEMATIC DIAGRAM - MONITOR PANEL DISPLAY BD.	
		SIZE CODE IDENT NO DRAWING NO	
		D REV D 440110 - 001	
		SCALE NONE SHEET 1 OF 3	



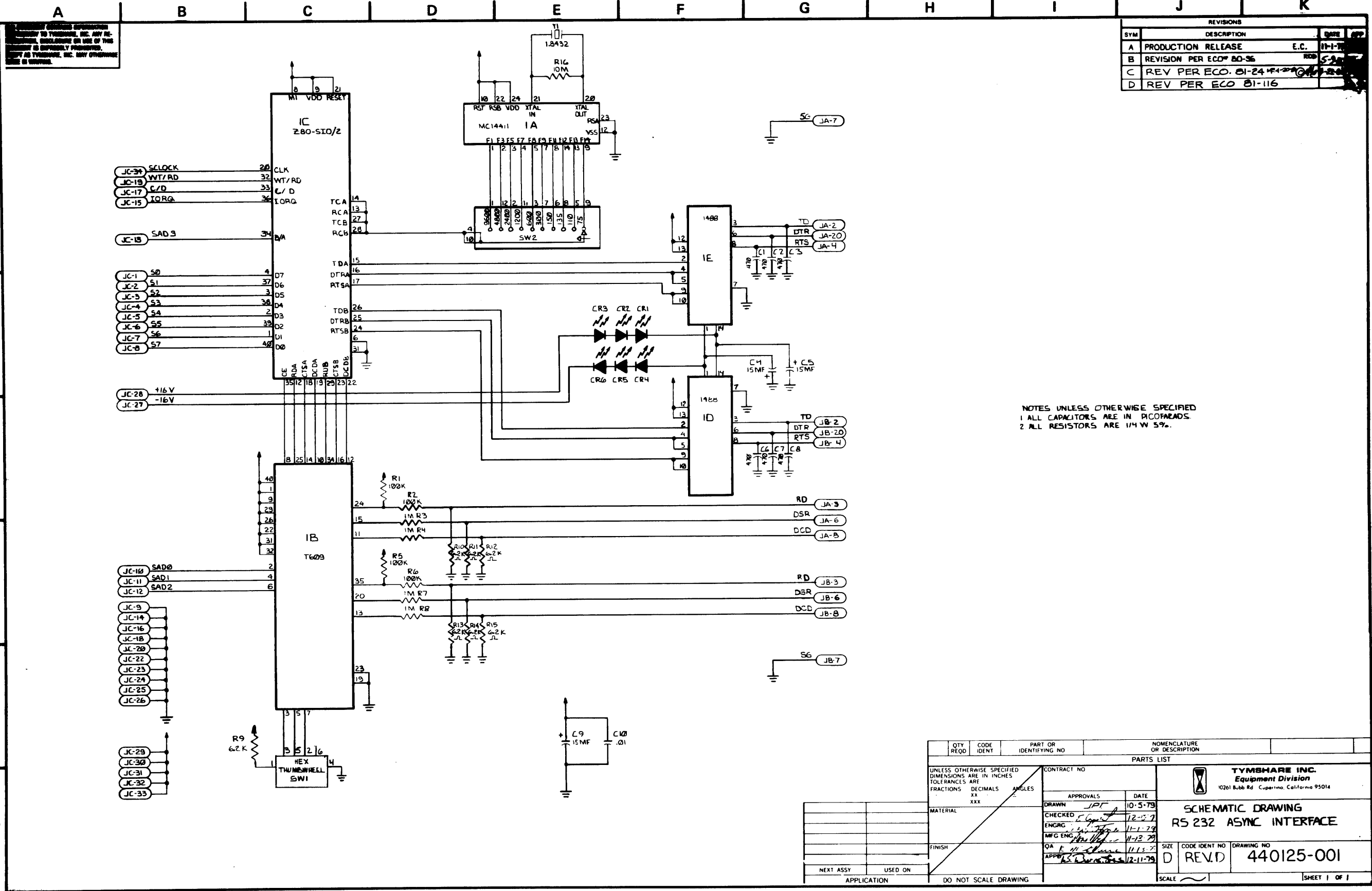
REVISIONS			
SYM	DESCRIPTION	DATE	APP
A	PROTOTYPE RELEASE	E.C.	
B	PRODUCTION RELEASE	RDC 11-13-79	
C	REV. PER ECO 80-32	EC 1/28/80	
D	REV. PER ECO 80-70	EC 1/28/80	
E	REV. PER ECO 80-81	EC 1/28/80	
F	REV. PER ECC 81-116	EC 1/28/80	

NOTES UNLESS OTHERWISE SPECIFIED:
 1. RESISTORS ARE 25W, 5%, VALUES ARE IN OHMS.
 2. CAPACITOR VALUES ARE IN MICROFARADS.

QTY REQD		CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
PARTS LIST				
MATERIAL		CONTRACT NO.		
FINISH		APPROVALS		
NEXT ASSY		DATE		
USED ON		DRAWN J SINN 10-4-79		
APPLICATION		CHECKED [Signature]		
DO NOT SCALE DRAWING		MFG ENG [Signature]		
		QA [Signature]		
		APP [Signature]		
		DATE 11-13-79		
		SIZE CODE IDENT NO DRAWING NO		
		D REV. F 440124-001		
		SCALE ~ SHEET 1 OF 1		

TYMESHARE INC.
 Equipment Division
 10261 Burb Rd. Cupertino, California 95014

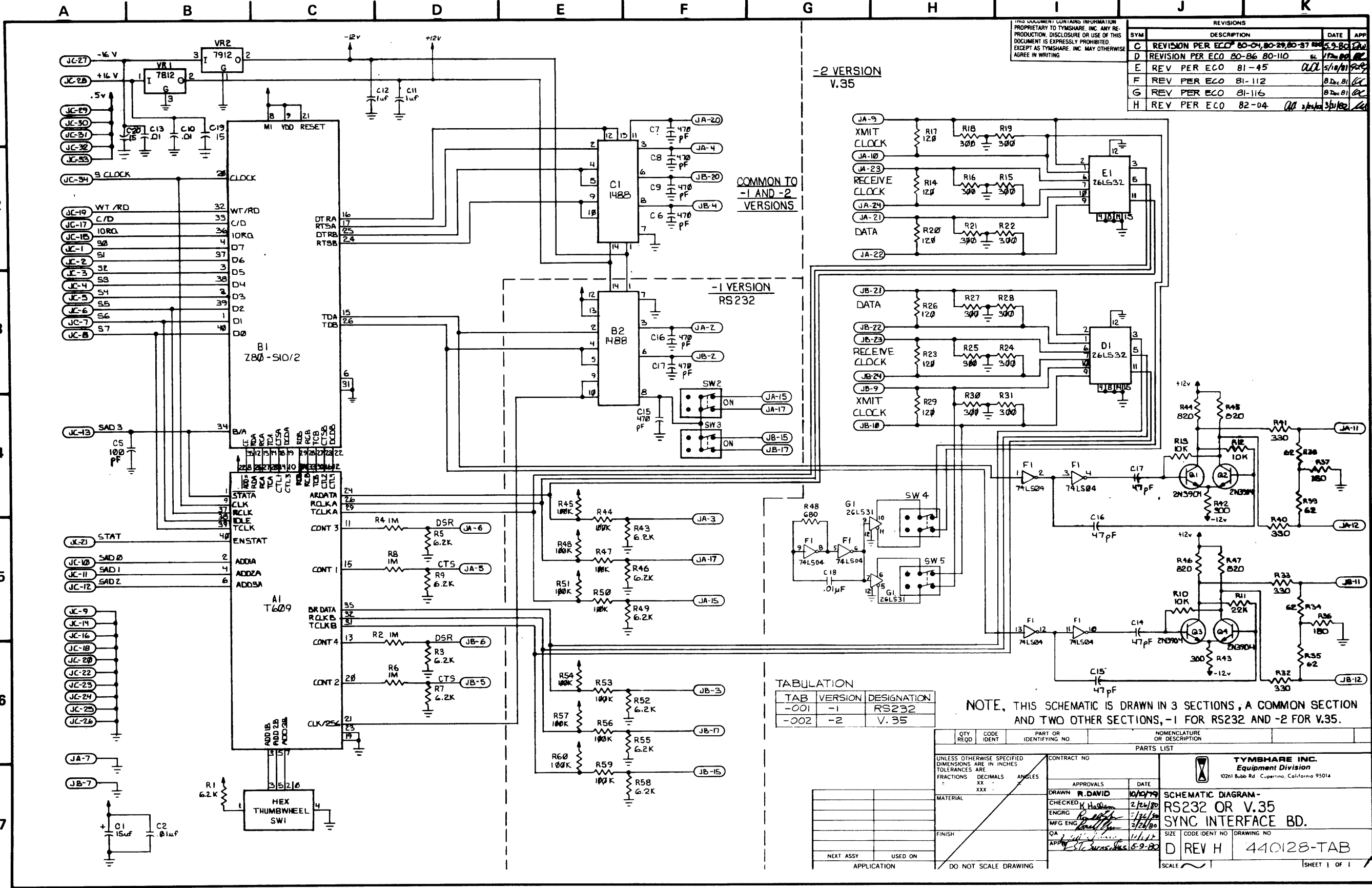
SCHEMATIC DIAGRAM -
 O.C. S.I.O. INTERFACE BOARD



REVISIONS			
SYM	DESCRIPTION	DATE	APP
A	PRODUCTION RELEASE	E.C.	11-1-79
B	REVISION PER ECO 80-36		
C	REV PER ECO 81-24		
D	REV PER ECO 81-116		

NOTES UNLESS OTHERWISE SPECIFIED
 1 ALL CAPACITORS ARE IN PICOFARADS.
 2 ALL RESISTORS ARE 1/4 W 5%.

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		CONTRACT NO	
MATERIAL		APPROVALS DATE	
FINISH		DRAWN JPT 10-5-79	
NEXT ASSY		CHECKED 12-2-79	
USED ON		ENGRG 11-1-79	
APPLICATION		MFG ENG 11-12-79	
DO NOT SCALE DRAWING		QA 11-13-79	
		APPV 12-11-79	
		SCHEMATIC DRAWING RS 232 ASYNC INTERFACE	
		SIZE	CODE IDENT NO
		D	REV.D
		DRAWING NO	440125-001
		SCALE	SHEET 1 OF 1



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REVISIONS			
SYM	DESCRIPTION	DATE	APP
C	REVISION PER ECO 80-01, 80-29, 80-37	5-9-80	DL
D	REVISION PER ECO 80-86, 80-110	5/10/81	DL
E	REV PER ECO 81-45	5/10/81	DL
F	REV PER ECO 81-112	8/24/81	DL
G	REV PER ECO 81-116	8/24/81	DL
H	REV PER ECO 82-04	11/18/82	DL

COMMON TO -1 AND -2 VERSIONS

TAB	VERSION	DESIGNATION
-001	-1	RS232
-002	-2	V.35

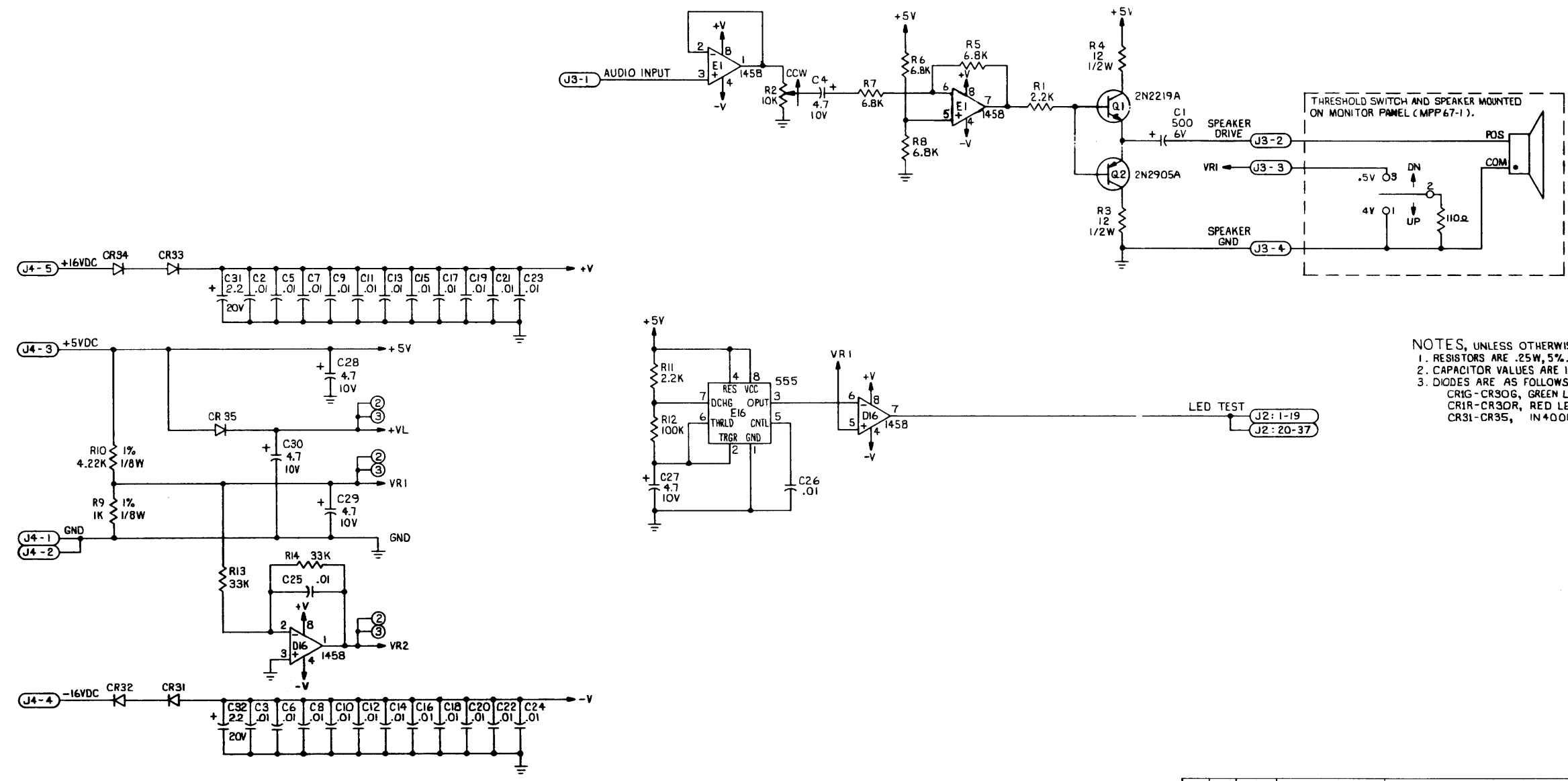
NOTE, THIS SCHEMATIC IS DRAWN IN 3 SECTIONS, A COMMON SECTION AND TWO OTHER SECTIONS, -1 FOR RS232 AND -2 FOR V.35.

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 XXX .XXX .XXX			
MATERIAL		CONTRACT NO.	
FINISH		APPROVALS	
NEXT ASSY USED ON APPLICATION		DRAWN R. DAVID 10/10/79	
		CHECKED K. HANSEN 2/24/80	
		ENGRG R. HANSEN 1/24/80	
		MFG ENG R. HANSEN 2/24/80	
		QA R. HANSEN 1/14/80	
		APP R. HANSEN 5-9-80	
		SCHEMATIC DIAGRAM - RS232 OR V.35 SYNC INTERFACE BD.	
		SIZE CODE IDENT NO DRAWING NO	
		D REV H 440128-TAB	
		SCALE SHEET 1 OF 1	

A B C D E F G H I J K

REVISIONS			
SYM	DESCRIPTION	DATE	APP
B	REDRAWN PER ECO. 79-47	EC.	2-28-80
C	REV. PER ECO 81-75	002	5/4/81
D	REV PER ECO 81-116		

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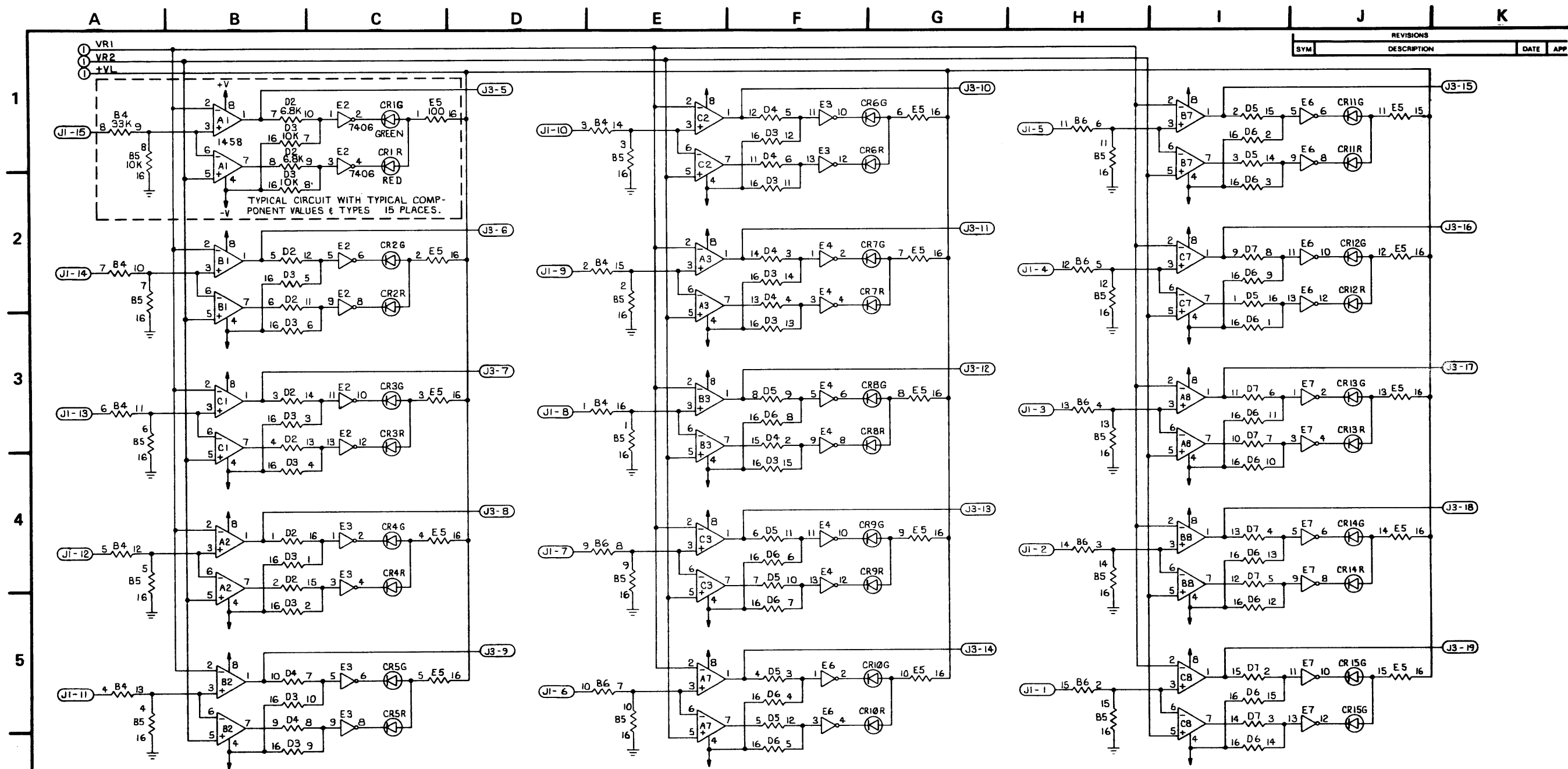
NOTES, UNLESS OTHERWISE SPECIFIED:
 1. RESISTORS ARE .25W, 5%. VALUES ARE IN OHMS.
 2. CAPACITOR VALUES ARE IN MICROFARADS.
 3. DIODES ARE AS FOLLOWS:
 CR1G-CR30G, GREEN LED, DDL5
 CR1R-CR30R, RED LED, DDL6
 CR31-CR35, IN 4001, DDPI-4001

PRODUCTION RELEASED

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		CONTRACT NO.	
MATERIAL		APPROVALS	DATE
FINISH		DRAWN E CYPRET	8-8-79
NEXT ASSY USED ON APPLICATION		CHECKED [Signature]	12-13-79
		ENGRG [Signature]	2-27-80
		MFG ENG [Signature]	2/27/80
		QA [Signature]	1/2/80
		APPRO [Signature]	12-28-80
SIZE	CODE IDENT NO	DRAWING NO	
D	REV D	440110 - 001	
SCALE NONE		SHEET 1 OF 3	

TYMSHARE INC.
 Equipment Division
 10201 866 Rd. Cupertino, California 95014

SCHEMATIC DIAGRAM -
 MONITOR PANEL DISPLAY BD.



REVISIONS			
SYM	DESCRIPTION	DATE	APP

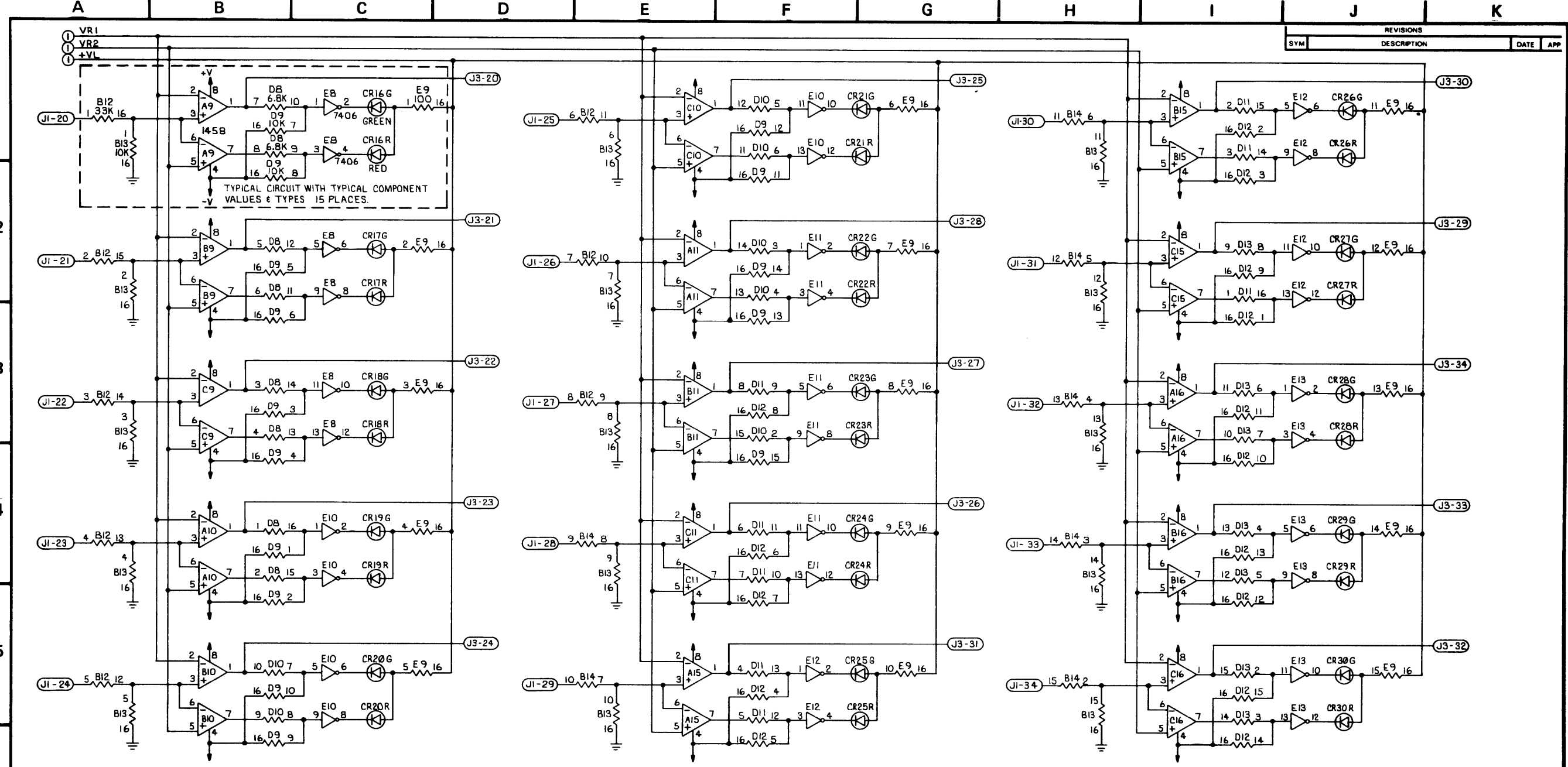
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QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES		CONTRACT NO.	
MATERIAL		APPROVALS	
FINISH		DATE	
NEXT ASSY		DRAWN E. CYPRET 8-8-79	
USED ON		ENGRG. H. W. H. 2-24-80	
APPLICATION		MFG ENGRG. 2-27-80	
DO NOT SCALE DRAWING		QA 2/27/80	
		APPD. B. E. Swanson 2-28-80	
SIZE	CODE IDENT NO.	DRAWING NO.	
D	REV D	440110 - 001	
SCALE NONE		SHEET 2 OF 3	

TYMSHARE INC. Equipment Division 10201 Burb Rd. Cupertino, California 95014

SCHEMATIC DIAGRAM-MONITOR PANEL DISPLAY BD.



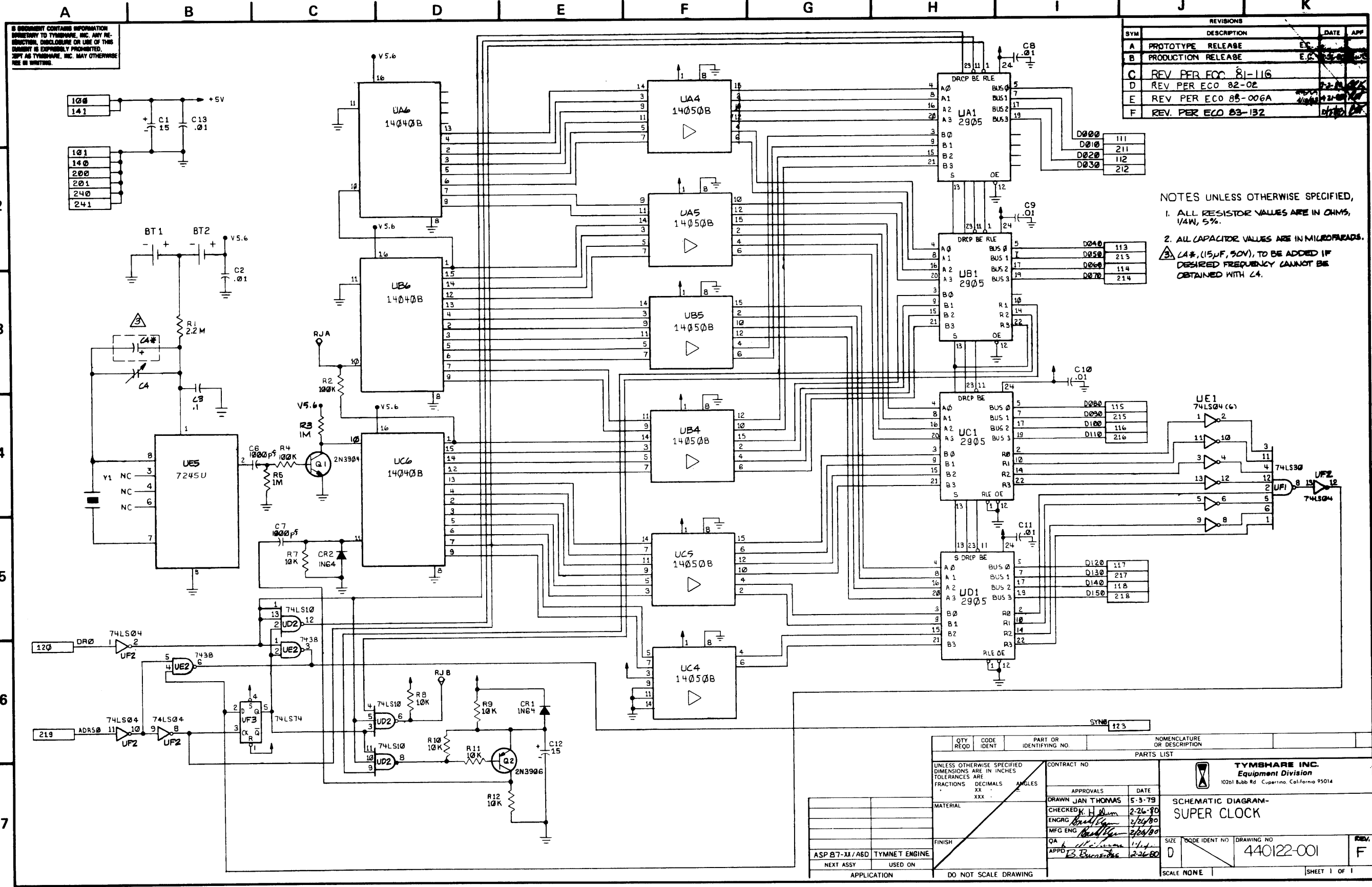
REVISIONS			
SYM	DESCRIPTION	DATE	APP

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

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XX XXX		CONTRACT NO.	PARTS LIST	
MATERIAL		APPROVALS	DATE	<p>10261 Burb Rd. Cupertino, California 95014</p>
FINISH		DRAWN E CYPRET	8-8-79	
NEXT ASSY USED ON APPLICATION		CHECKED <i>[Signature]</i>	2-26-80	
DO NOT SCALE DRAWING		ENGRG <i>[Signature]</i>	2-27-80	<p>Schematic Diagram - MONITOR PANEL DISPLAY BD.</p>
		MFG ENG <i>[Signature]</i>	2-27-80	
		APPD <i>[Signature]</i>	2-27-80	
		SIZE	CODE IDENT NO	DRAWING NO
		SCALE NONE	D REV D	440110 - 001
				SHEET 3 OF 3



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REVISIONS			
SYM	DESCRIPTION	DATE	APP
A	PROTOTYPE RELEASE		
B	PRODUCTION RELEASE		
C	REV PER ECO 81-116		
D	REV PER ECO 82-02		
E	REV PER ECO 85-006A		
F	REV PER ECO 83-132		

NOTES UNLESS OTHERWISE SPECIFIED,
 1. ALL RESISTOR VALUES ARE IN OHMS, 1/4W, 5%.
 2. ALL CAPACITOR VALUES ARE IN MICROPARADS.
 3. CA*, (15µF, 50V), TO BE ADDED IF DESIRED FREQUENCY CANNOT BE OBTAINED WITH CA.

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
			SYN# 123
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XXX		CONTRACT NO.	
MATERIAL		APPROVALS	
FINISH		DATE	
NEXT ASSY USED ON		DRAWN JAN THOMAS 5-3-79	
APPLICATION		CHECKED BY H. J. [Signature] 2-26-80	
DO NOT SCALE DRAWING		ENGRG [Signature] 2/26/80	
		MFG ENG [Signature] 2/26/80	
		QA [Signature] 1/14	
		APPD [Signature] 2-26-80	
ASP B7-XX/ABD TYMNET ENGINE		SIZE CODE IDENT NO DRAWING NO	
SCALE NONE		D 440122-001	
SHEET 1 OF 1		REV. F	

TYMSHARE INC. Equipment Division 10261 Burb Rd. Cupertino, California 95014

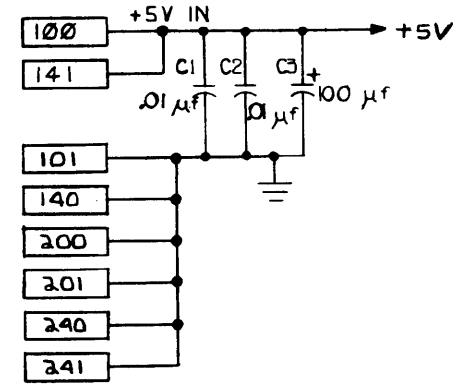
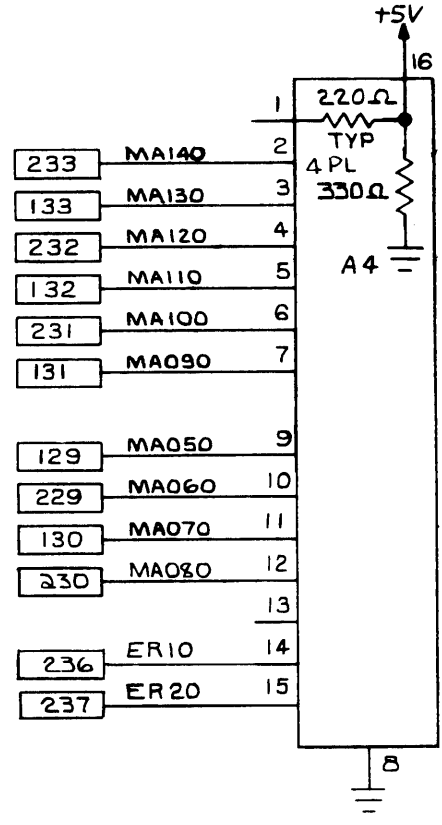
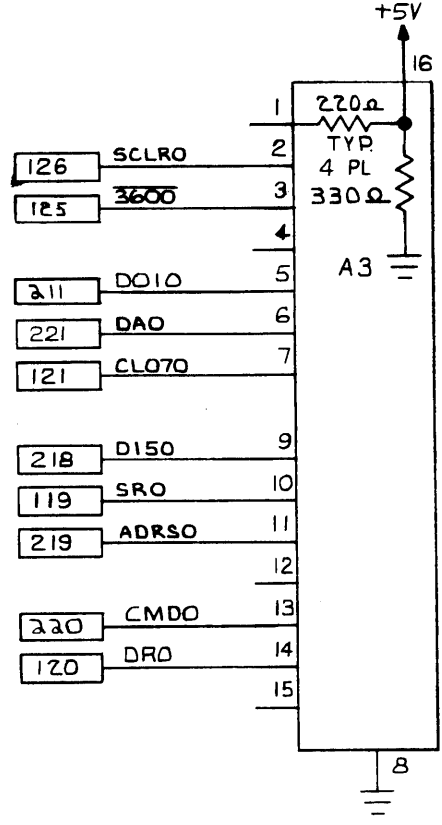
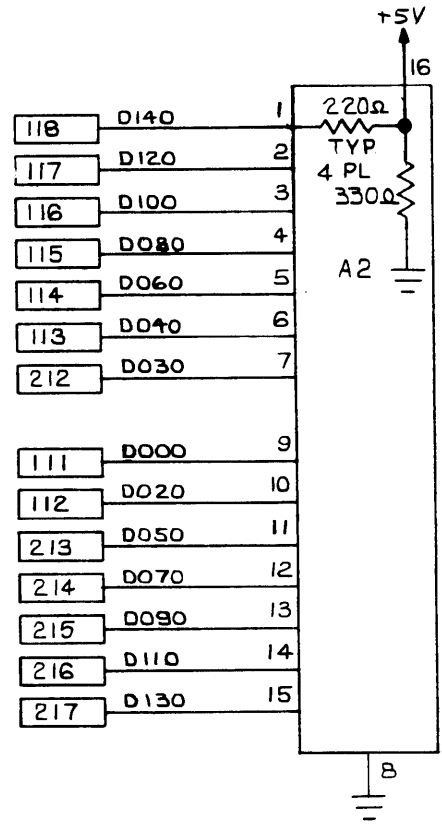
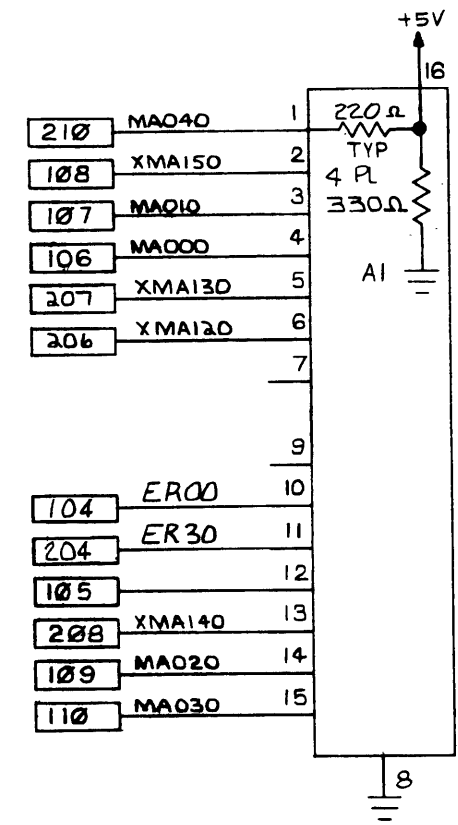
SCHEMATIC DIAGRAM-SUPER CLOCK

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H	REV PER ECO 82-15C	DR 54/B2
J	ECO 84-129	8-17-79

REVISIONS		
SYM	DESCRIPTION	APP
B	PRODUCTION RELEASE	JLB
C	REV. PER ECO 79-56 US 82375	JLB
D	REV PER ECO 81-22	
E	REV PER ECO SEE ECO 81-121	
F	REV PER ECO 81-121	11-17-81
G	REV PER ECO 81-116	JLB

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TABULATION BLOCK		
DASH NO	TITLE	DESCRIPTION
-001	MUX I/O	USE A2 & A3 ONLY
-002	MEMORY	USE A1 & A4 ONLY
-003	MINI-ENG	USE A1 THRU A4

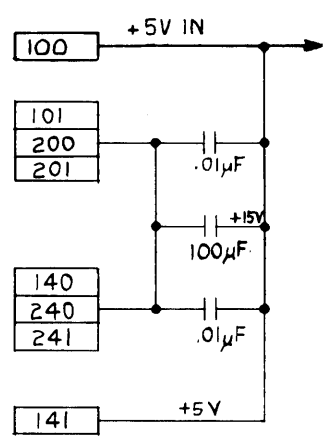
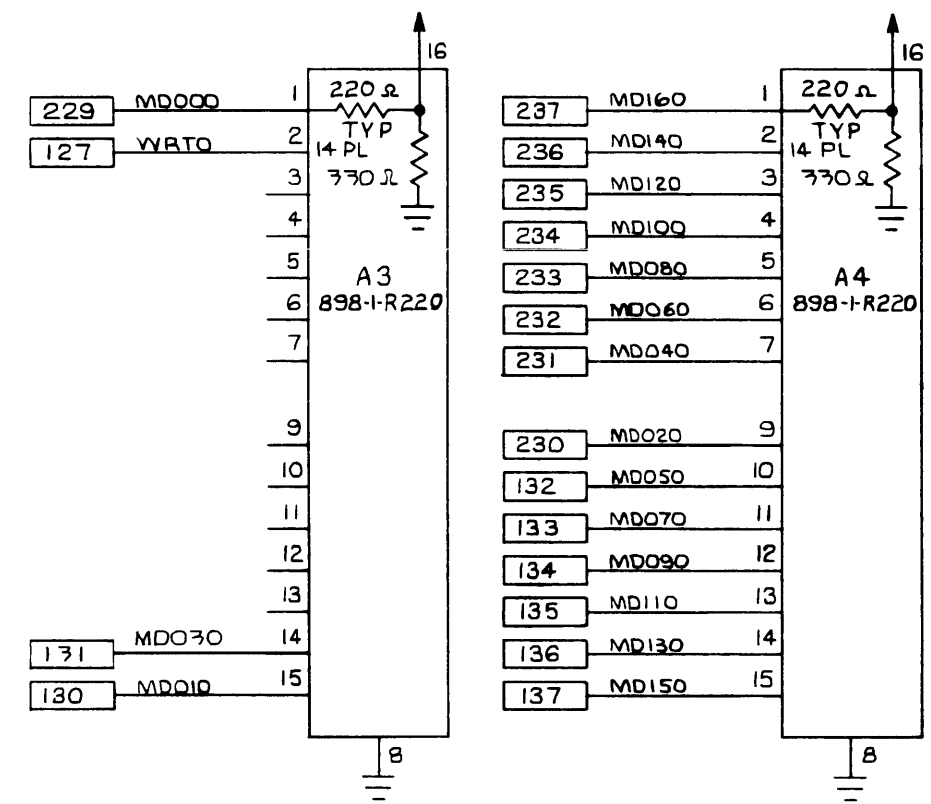
NOTES - UNLESS OTHERWISE SPECIFIED
1. NUMBERS INSIDE RECTANGULAR BOXES ARE AS FOLLOWS:
EXAMPLE

APPROVALS		DATE	20705 VALLEY GREEN DR. CUPERTINO, CALIF. 95014 Title SCHEMATIC - CONN Ø TERM BD
DRAWN U.T.D.		12-1-79	
CHECKED J.L.B.		12-18-79	
ENGRG J.E.		12-17-79	
MFG ENG J.C.		12-17-79	
QA J.M. / J.S.		12-17-79	Project TYMNET ENGINE
APP'D J.S.		12-11-79	Size C
Scale: FULL		REV. J	Number 440140-TAB Sheet of

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REVISIONS		
SYM	DESCRIPTION	APP
B	PRODUCTION RELEASE	EC. BWB
C	REV PER ECO 81-116	
D	REV PER E.C.O. 81-115	11/21/81 TJK
E	REV PER ECO 84-131	9-14-84 KAT APR-84

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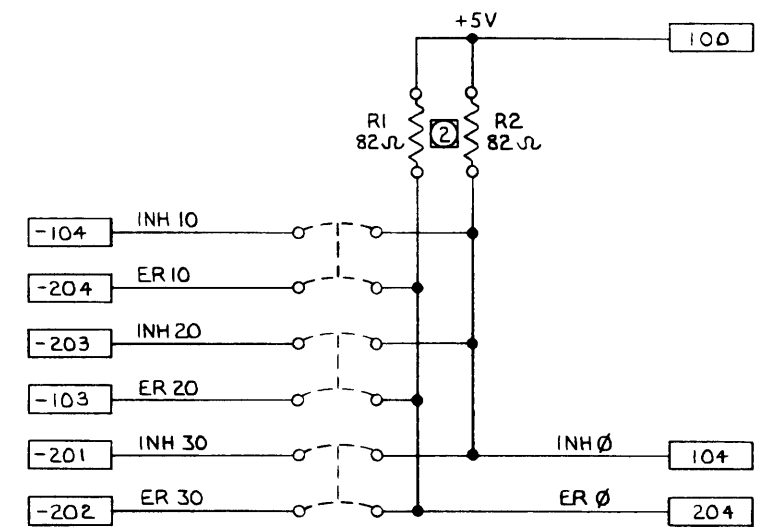


CONTRACT NO.		20705 VALLEY GREEN DR. CUPERTINO, CALIF. 95014	
APPROVALS	DATE	Title	
DRAWN <i>E. Cant</i>	12-19-79	CONN 1 TERM. BOARD-MEM	
CHECKED <i>F. Ray</i>	12-19-79	(MEM TERM - CPU B/P - CONN 1 SIDE)	
ENGRS <i>W. Kelly</i>	2/27/80	Project	Size Number
MFG ENGR <i>W. Kelly</i>	2/27/80	TYMNET	C 440116-001
QA <i>R. H. H.</i>	1-8-80	ENGINE	
MFG <i>B. B. S.</i>	2-28-80	Scale: FULL	REV E Sheet 1 of 1

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REVISIONS		
SYM	DESCRIPTION	APP
A	PRODUCTION RELEASE 2-26-80	RAW/B
B	REV PER ECO 81-116	

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NOTES UNLESS OTHERWISE SPECIFIED:
 1. RESISTORS ARE .25W 5%.
 ② RESISTORS R1 + R2 NOT USED ON -02 VERSION.

MEMORY CORE SIZE	BOARD VERSION	
	-01	*-02
0-256 K	0	0
0-512 K	1	1
0-768 K	2	1
0-1024 K	3	1

* ALWAYS LAST USED

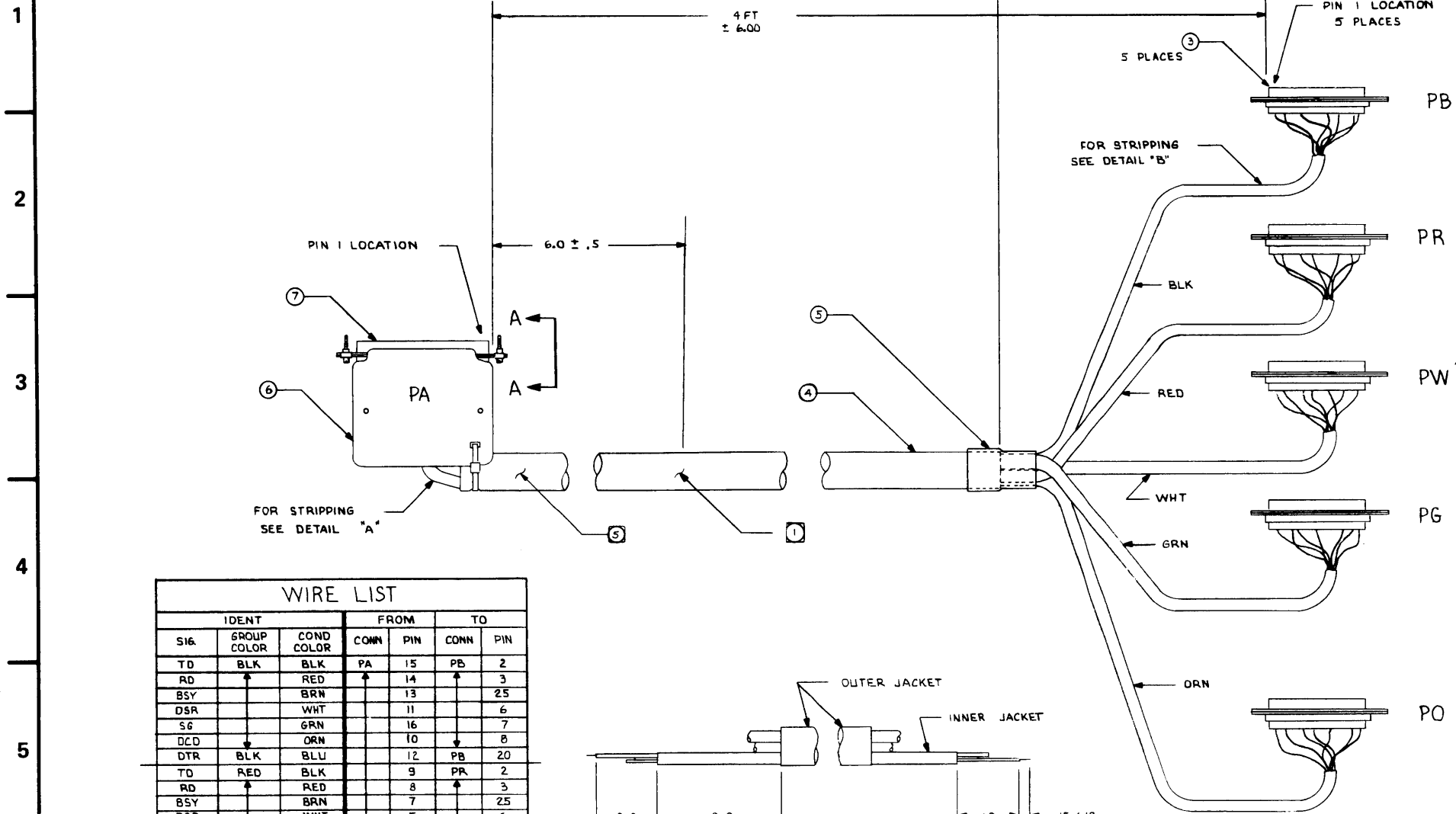
CORE GROUP	OPTION STRAPPING			
	1 ST BD.	2 ND BD.	3 RD BD.	4 TH BD.
256K-512K	NO	10		
512K-768K	NO	10	20	
768K-1024K	NO	10	20	30

ASB 256-1/ASD

CONTRACT NO.		20705 VALLEY GREEN DR. CUPERTINO, CALIF. 95014	
APPROVALS		DATE	Title SCHEMATIC DIAGRAM MEMORY CONTROL CONNECTOR & TERMINATION BOARD
DRAWN <i>[Signature]</i>		12-19-79	
CHECKED <i>[Signature]</i>		12-19-79	
ENERG <i>[Signature]</i>		2/24/80	
MFG ENG <i>[Signature]</i>		2/24/80	
DES <i>[Signature]</i>		1-9-80	Project TYMNET ENGINE
APPRO <i>[Signature]</i>		2-26-80	Size Number C 440120-001
Scale: NONE		REV	Sheet 1 of 1

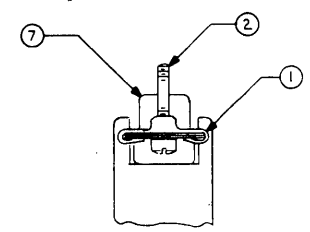
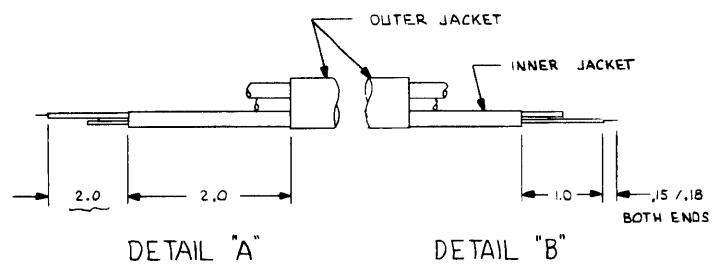
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REVISIONS			
SYM	DESCRIPTION	DATE	APP
A	PRODUCTION RELEASE		
B	CORRECTED PER ECO 79-35	7-13-79	
C	REV PER ECO 81-116		



- NOTES : UNLESS OTHERWISE SPECIFIED
- ① PERMANENTLY MARK PART NO., DASH VERSION, AND REV. LEVEL, APPROX. WHERE SHOWN USING .12 HIGH CHARACTERS AND BLACK INK.
 - 2 SIGNAL CODES
 TD - TRANSMIT DATA
 RD - RECEIVE DATA
 SG - SIGNAL GROUND
 DCD - DATA CARRIER DETECT
 DSR - DATA SET READY
 DTR - DATA TERMINAL READY
 BSY - BUSY
 - ③ FOR REF ONLY - PART NOT MARKED
 - 4 NO HOOD AND NO RETAINERS ON CNH 5B CONNECTORS
 - ⑤ PERMANENTLY MARK ASSIGNED SERIAL NO. AND "Y" CABLE DESIGNATION APPROX. WHERE SHOWN USING .12 HIGH CHARACTERS AND BLACK INK AFTER ASSEMBLY IN MPP 75-1 PANEL PER ASP 88-1

WIRE LIST						
SIG	IDENT		FROM		TO	
	GROUP COLOR	COND COLOR	CONN	PIN	CONN	PIN
TD	BLK	BLK	PA	15	PB	2
RD		RED		14		3
BSY		BRN		13		25
DSR		WHT		11		6
SG		GRN		16		7
DCD		ORN		10		8
DTR	BLK	BLU		12	PB	20
TD	RED	BLK		9	PR	2
RD		RED		8		3
BSY		BRN		7		25
DSR		WHT		5		6
SG		GRN		17		7
DCD		ORN		4		8
DTR	RED	BLU		6	PR	20
TD	ORN	BLK		3	PO	2
RD		RED		2		3
BSY		BRN		1		25
DSR		WHT		21		6
SG		GRN		18		7
DCD		ORN		22		8
DTR	ORN	BLU		20	PD	20
TD	GRN	BLK		23	PG	2
RD		RED		24		3
BSY		BRN		25		25
DSR		WHT		27		6
SG		GRN		19		7
DCD		ORN		28		8
DTR	GRN	BLU		26	PG	20
TD	WHT	BLK		29	PW	2
RD		RED		30		3
BSY		BRN		31		25
DSR		WHT		33		6
SG		GRN		35		7
DCD		ORN		34		8
DTR	WHT	BLU		32	PW	20
OPEN			PA	36/37		



VIEW A-A
SCALE 2:1
2 PLACES

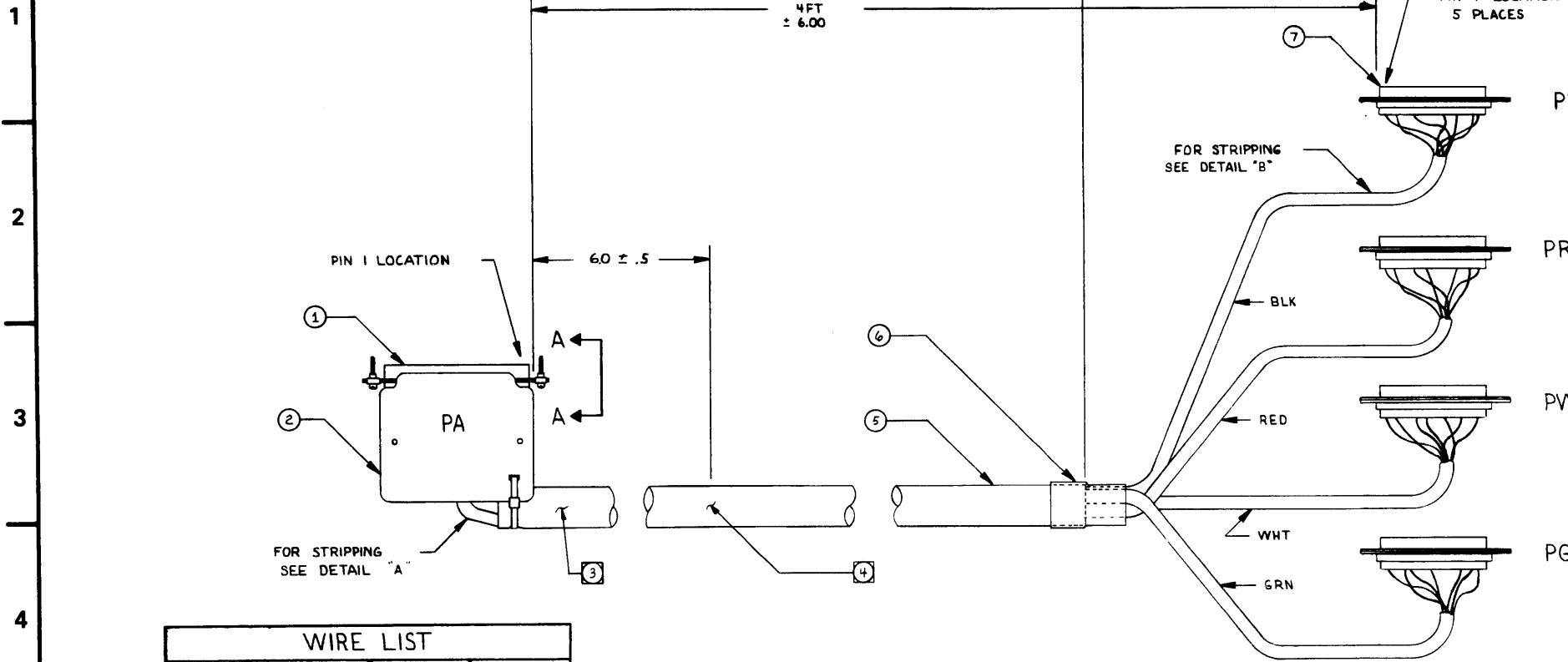
QTY REQD	CODE IDENT	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	
1		CNJ 57	37 PIN CONNECTOR	7
1		CNH 35	PLASTIC HOOD DC 37	6
1		WCS 1-6	1" DIA	5
1		WCD 2	5 X 7 CONDUCTOR	4
5		CNJ 5B	25 PIN CONNECTOR	3
2		HV57-41	4-40 X 1/2"	2
2		CNH 36	MALE SCREW AND RETAINER	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XX		CONTRACT NO.		 10201 Burb Rd. Cupertino, California 95014	
MATERIAL		APPROVALS		DATE	
FINISH		DRAWN J. PATRICK THOMAS		5-2-79	
NEXT ASSY USED ON		CHECKED [Signature]		6/14/79	
APPLICATION		ENGRG [Signature]		6/17/79	
DO NOT SCALE DRAWING		MFG ENGR [Signature]		7/24/80	
		QA [Signature]		8/14/79	
		APP [Signature]		8/14/79	
		SIZE		CODE IDENT NO	
		D		REV. C	
		DRAWING NO		160044-001	
		SCALE 1:1		SHEET 1 OF 1	

A B C D E F G H I J K

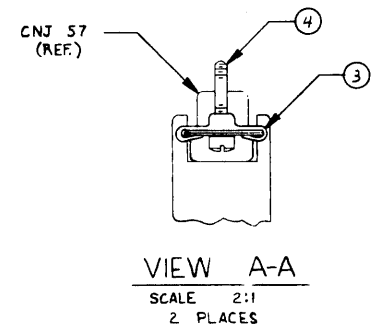
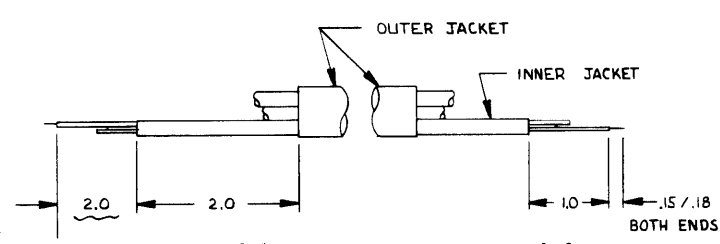
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REVISIONS			
SYM	DESCRIPTION	DATE	APP
A	PRODUCTION RELEASE		
B	CORRECTED PER ECO 79-95	7-13-79	
C	REV PER ECO 81-116		



- 1 NO HOOD AND NO RETAINERS ON CNJ58 CONNECTORS
- 2 FOR REF. ONLY - PART NOT MARKED
- 3 PERMANENTLY MARK ASSIGNED SERIAL NO. AND "X" CABLE DESIGNATION APPROX. WHERE SHOWN USING .12 HIGH CHARACTERS AND BLACK INK AFTER ASSEMBLY IN MPP 73-1 PANEL PER ASP 90-1.
- 4 PERMANENTLY MARK PART NO. DASH VERSION AND REV. LEVEL APPROX. WHERE SHOWN USING .12 HIGH CHARACTERS AND BLACK INK.
- 5 SIGNAL CODES:
 TD - TRANSMIT DATA
 RD - RECEIVE DATA
 SG - SIGNAL GROUND
 TC - TRANSMIT CLOCK
 RC - RECEIVE CLOCK
 RTS - REQUEST TO SEND
 DSR - DATA SET READY
 DTR - DATA TERMINAL READY
 CTS - CLEAR TO SEND

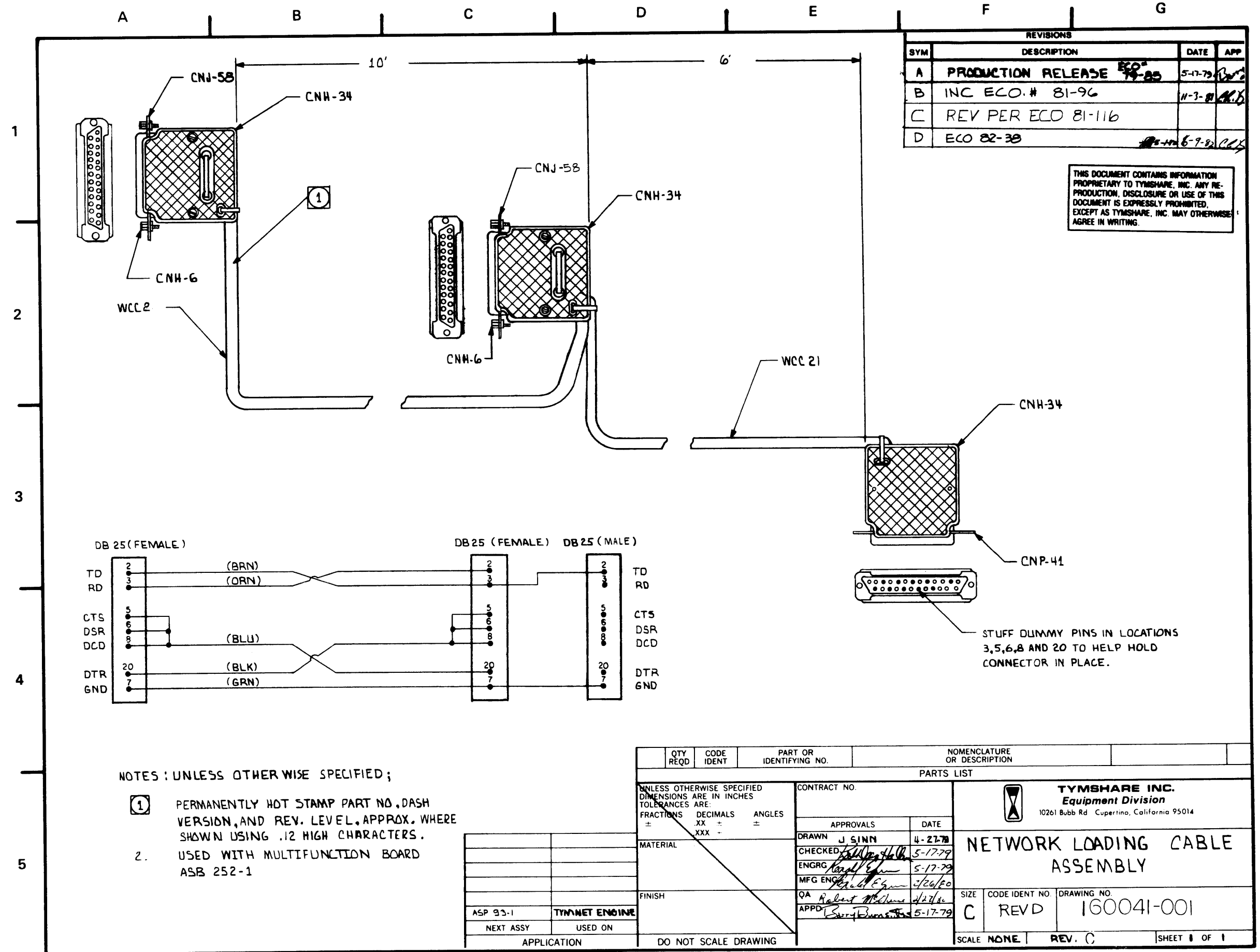
WIRE LIST							
IDENT			FROM		TO		
SIG.	GROUP COLOR	COND. COLOR	CONN	PIN	CONN	PIN	
TD	WHT	BLK	PA	13	PW	2	
RD		RED		12		3	
RTS		WHT		9		4	
SG		GRN		44		7	
TC		ORN		11		15	
RC	WHT	BLU		10	PW	17	
TD	GRN	BLK		8	PG	2	
RD		RED		7		3	
RTS		WHT		4		4	
SG		GRN		15		7	
TC		ORN		6		15	
RC	GRN	BLU		5	PG	17	
TD	BLK	BLK		3	PB	2	
RD		RED		2		3	
RTS		WHT		24		4	
CTS		BRN		23		5	
DSR		YEL		21		6	
SG		GRN		16		7	
TC		ORN		1		15	
RC		BLU		20		17	
DTR	BLK	VIO		22	PB	20	
TD	RED	BLK		25	PR	2	
RD		RED		20		3	
RTS		WHT		32		4	
CTS		BRN		31		5	
DSR		YEL		29		6	
SG		GRN		17		7	
TC		ORN		27		15	
RC		BLU		28		17	
DTR	RED	VIO		30	PR	20	
OPEN				18			
				19			
				33			
				34			
				35			
				36			
OPEN			PA	17			



VIEW A-A
SCALE 2:1
2 PLACES

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	
4		CNJ 58	25 PIN DUAL ROW CONNECTOR	7
1		WCS1-6	SHRINK TUBING 1" DIA.	6
1		WCD 1	4 x 7 CONDUCTOR CABLE	5
2		HWS 7-41	* 4-40 x 1/2" SCREW	4
2		CNH 36	RETAINER	3
1		CNH 35	PLASTIC HOOD DC 37	2
1		CNJ 57	37 PIN CONNECTOR	1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS DECIMALS ANGLES		CONTRACT NO.		 10201 Bubb Rd. Cupertino, California 95014	
MATERIAL		APPROVALS		DATE	
FINISH		DRAWN JPT		12-12-78	
NEXT ASSY USED ON		CHECKED <i>[Signature]</i>		6-14-79	
APPLICATION		ENGRG <i>[Signature]</i>		6/14/79	
DO NOT SCALE DRAWING		MFG ENG <i>[Signature]</i>		2/26/80	
		QA <i>[Signature]</i>		1/17/80	
		APPR <i>[Signature]</i>		6/14/79	
		SIZE CODE IDENT NO DRAWING NO		D REV.C 160045 - 001	
		SCALE 1:1		SHEET 1 OF 1	



REVISIONS			
SYM	DESCRIPTION	DATE	APP
A	PRODUCTION RELEASE ECD 79-05	5-17-79	[Signature]
B	INC ECO.# 81-96	11-3-81	[Signature]
C	REV PER ECO 81-116		
D	ECO 82-38	8-17-82	[Signature]

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NOTES: UNLESS OTHERWISE SPECIFIED;
 1. PERMANENTLY HOT STAMP PART NO., DASH VERSION, AND REV. LEVEL, APPROX. WHERE SHOWN USING .12 HIGH CHARACTERS.
 2. USED WITH MULTIFUNCTION BOARD ASB 252-1

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.	
FRACTIONS	DECIMALS	ANGLES	APPROVALS
±	.XX ±	±	DATE
±	.XXX ±	±	
MATERIAL		DRAWN J SINN 4-27-79	
		CHECKED [Signature] 5-17-79	
		ENGRG [Signature] 5-17-79	
		MFG ENGR [Signature] 5/26/80	
		QA Robert McNamee 4/27/80	
		APPD [Signature] 5-17-79	
FINISH		SIZE	CODE IDENT NO. DRAWING NO.
ASP 93-1 TYMNET ENGINE		C	REV D 160041-001
NEXT ASSY USED ON		SCALE	REV. C SHEET 1 OF 1
APPLICATION		DO NOT SCALE DRAWING	

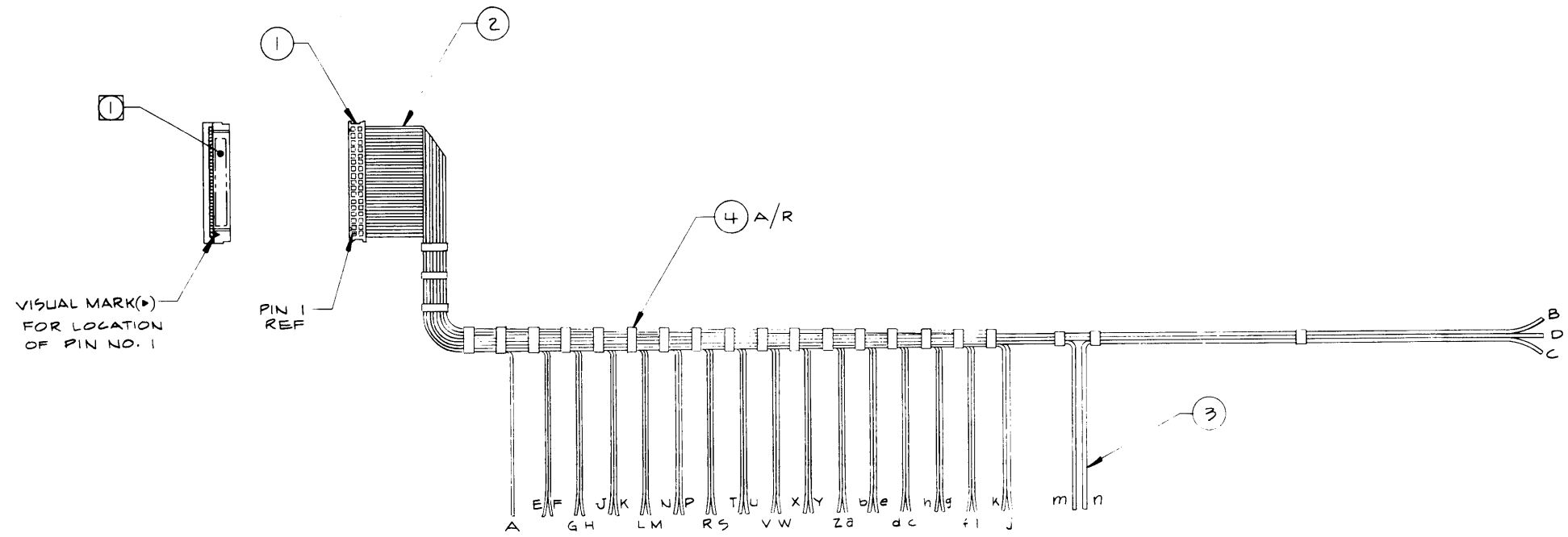
TYMSHARE INC.
 Equipment Division
 10261 Bubb Rd. Cupertino, California 95014

NETWORK LOADING CABLE ASSEMBLY

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REVISIONS			
SYM	DESCRIPTION	DATE	APP
B	REVISED & REDRAWN & PRODUCTION RELEASED	2-2-80	R.S.
C	REV PER ECO 81-116		

1
2
3
4
5
6
7



WIRE DESIGNATION	FROM	COLOR	WIRE DESIGNATION	FROM	COLOR
A	① P1	BRN	V	① P19	WHT
B	① P2	RED	W	① P20	BLK
M	① P3	ORN	X	① P21	BRN
D	① P4	YEL	Y	① P22	RED
E	① P5	GRN	Z	① P23	ORN
F	① P6	BLU	a	① P24	YEL
G	① P7	VIO	b	① P25	GRN
H	① P8	GRY	c	① P26	BLU
J	① P9	WHT	d	① P27	VIO
K	① P10	BLK	e	① P28	GRY
L	① P11	BRN	f	① P29	WHT
M	① P12	RED	g	① P30	BLK
N	① P13	ORN	h	① P31	BRN
P	① P14	YEL	j	① P32	RED
R	① P15	GRN	k	① P33	ORN
S	① P16	BLU	l	① P34	YEL
T	① P17	VIO	n	C	ORN
U	① P18	GRY			

NOTES: UNLESS OTHERWISE SPECIFIED
 ① PERMANENTLY HOT STAMP PART NO., DASH VERSION & REV LEVEL APPROX WHERE SHOWN USING .12 HIGH CHARACTERS AND BLACK INK
 2. TO BE BUILT TO A FULL SIZE PRINT.

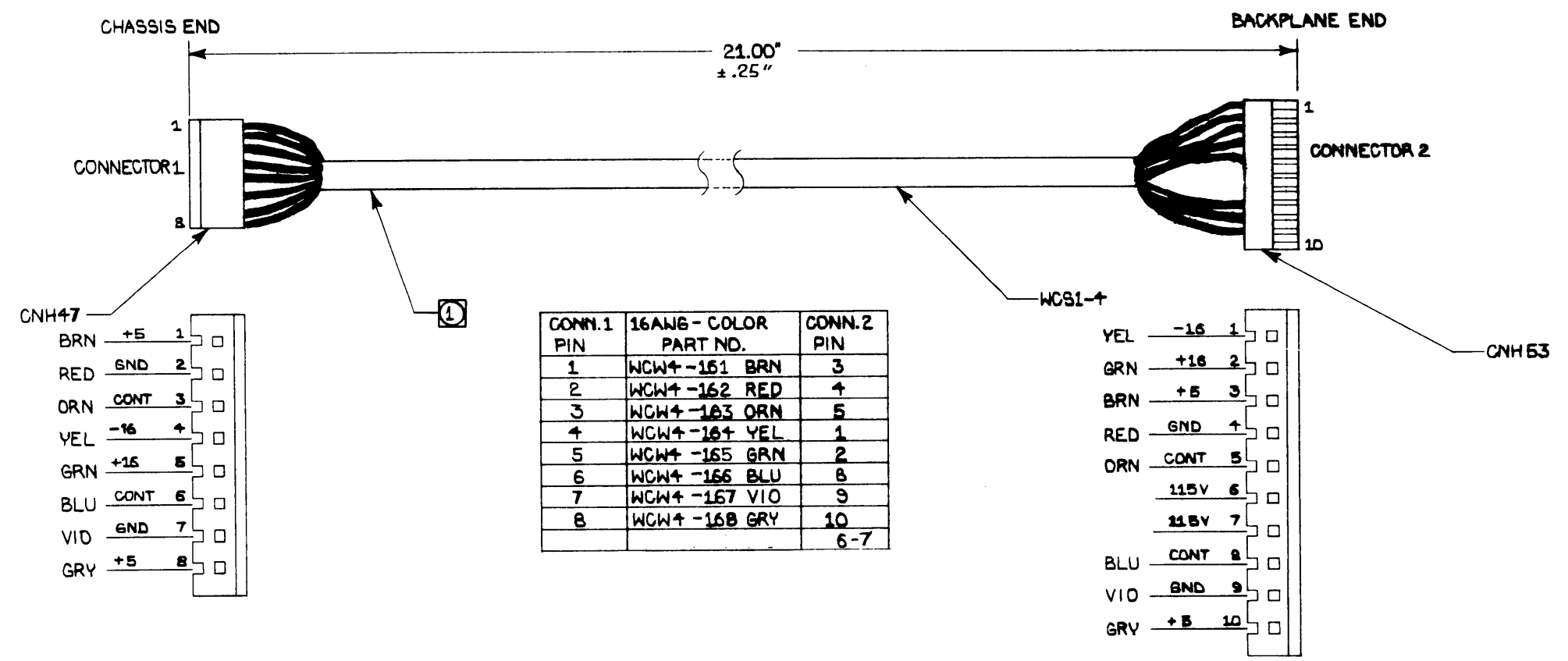
QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	
		A/R	WCRI-6	TIEWRAP, PLASTIC
			WCW4-303	WIRE CABLE, ORN, 30 GA
			WCF1-34	PLANAR CABLE (SPECTRA STRIP) 455-044-34
			CNJ11-363	CONNECTOR, SLOTTCH-FLEX

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES XX XXX		CONTRACT NO		 10201 Bubb Rd Cupertino, California 95014	
MATERIAL		APPROVALS		DATE	
SEE P/L		DRAWN <i>R. David</i>		5-1-79	
FINISH		CHECKED <i>R. David</i>		8-17-79	
NEXT ASSY USED ON		ENGRG <i>R. David</i>		2/2/80	
APPLICATION		MFG ENG <i>R. David</i>		2/2/80	
DO NOT SCALE DRAWING		QA <i>R. David</i>		2/2/80	
		APPROV <i>R. David</i>		2-2-80	
		SIZE		CODE IDENT NO	
		D		REV C	
		DRAWING NO		160017-001	
		SCALE FULL		SHEET 1 OF 1	

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REVISIONS		
SYM	DESCRIPTION	APP
1.	PROTOTYPE RELEASE A.S. 1-31-79	
A	PRODUCTION RELEASE	
B	REV PER ECO 81-116	

1
2
3
4
5



CONN.1 PIN	16AWG - COLOR PART NO.	CONN.2 PIN
1	WCW+ -161 BRN	3
2	WCW+ -162 RED	4
3	WCW+ -163 ORN	5
4	WCW+ -164 YEL	1
5	WCW+ -165 GRN	2
6	WCW+ -166 BLU	8
7	WCW+ -167 VIO	9
8	WCW+ -168 GRY	10
		6-7

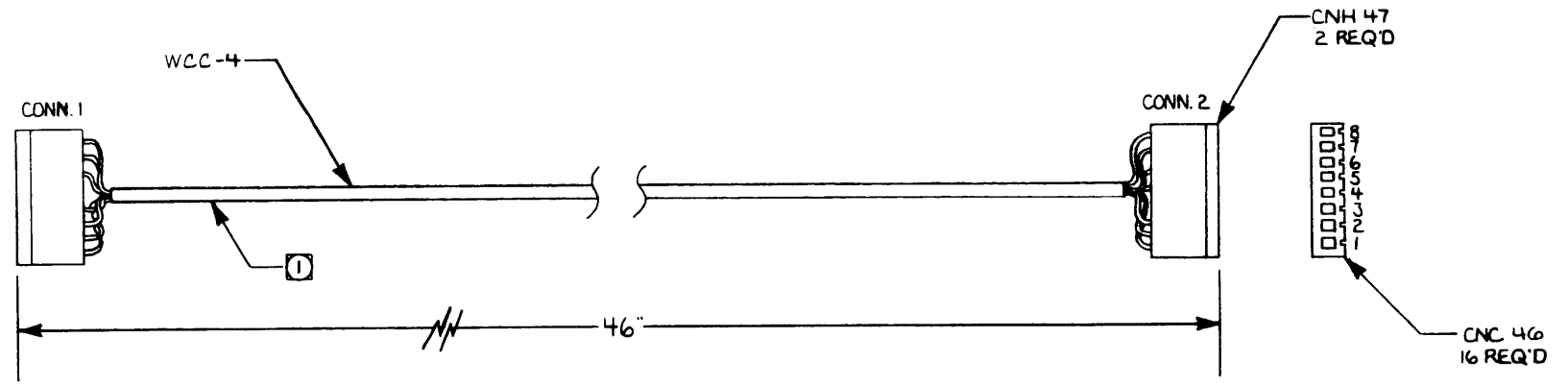
NOTES: UNLESS OTHERWISE SPECIFIED:
 ① MARK ASSY NO. ASD158-1 AND REVISION LEVEL APPROXIMATELY WHERE SHOWN.
 2. PART # OF PINS CRIMPED ON ENDS OF WIRES IS CNC 46

CONTRACT NO.		20705 VALLEY GREEN DR. CUPERTINO, CALIF. 95014	
APPROVALS	DATE	Title	
DRAWN A.B.	1-31-79	CHASSIS FRONT TO BACKPLANE INTERCONNECT	
CHECKED R. David	3-14-79		
ENGRS. <i>[Signature]</i>	4/26/80		
MFG. ENGR. <i>[Signature]</i>	2/26/80		
QA R. McEneaney	11/14/8	Project	Size Number
APPD. B. Burns	2-26-80	TYMNET ENGINE	C 160021-001
Scale: NONE		REV: B	Sheet 1 of 1

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REVISIONS		
SYM	DESCRIPTION	APP
1.	PRE-PRODUCTION RELEASE D.H. 9-11-78	Bub
A	PRODUCTION RELEASE 2-28-80	Bub
B	REV PER ECO 81-116	

1
2
3
4
5



CONN. 1	WCC-4 - COLOR	CONN. 2	
1	ORG	1	+5
2	GRN	2	GND
3	WHT	3	CONT
4		4	-16
5	BRN	5	+16
6	BLU	6	CONT
7	BLK	7	GND
8	RED	8	+5

NOTES-UNLESS OTHERWISE SPECIFIED:

- ① PERMANENTLY HOT STAMP PART NO., DASH VERSION, AND REV. LEVEL (ASC176-1A) APPROXIMATELY WHERE SHOWN.
- 2. PART NO. OF PINS CRIMPED ON ENDS OF WIRES IS CNC 46.

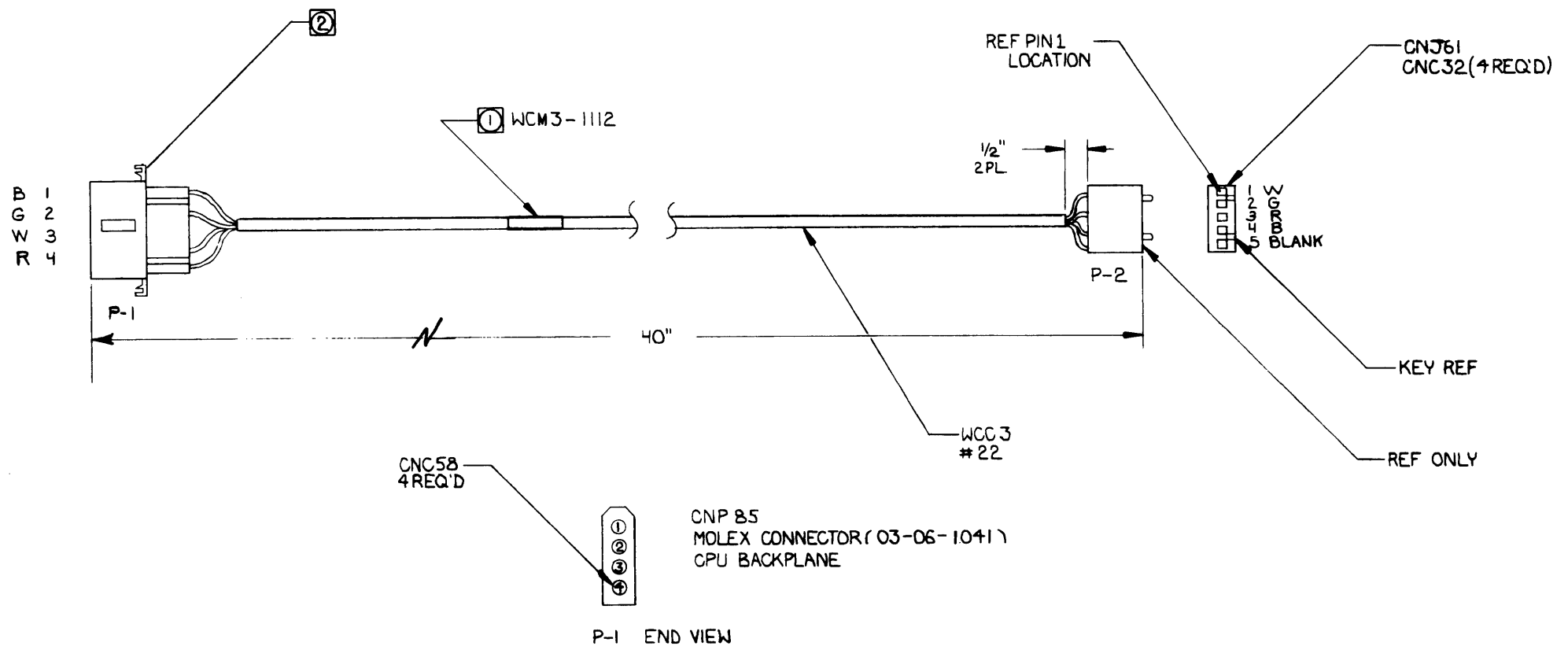
NEXT ASSY ASP78-1/ASD

CONTRACT NO.		20705 VALLEY GREEN DR. CUPERTINO, CALIF. 95014	
APPROVALS	DATE	Title	
DRAWN D. HAYES	9-11-78	SYSTEM CONSOLE POWER CABLE	
CHECKED R. DUND	7-9-79		
ENGRG I <i>[Signature]</i>	2/26/80		
MFG ENG <i>[Signature]</i>	2/24/80		
QA R. M. <i>[Signature]</i>	1/14/79	Project	Size Number
APPD B. Burn <i>[Signature]</i>	2-28-80	TYMNET ENGINE	C 160028-001
Scale: FULL		REV R	Sheet 1 of 1

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REVISIONS		
SYM	DESCRIPTION	APP
1	PROTOTYPE RELEASE A.7.2-16-79	
2	REDRAWN TO SHOW P-1 3-8-79	
A	PRODUCTION RELEASE 7-3-79	Derry
B	UPDATED PER ECO 79-68	JPT
C	REV PER ECO 81-116	

1
2
3
4
5



NOTES: UNLESS OTHERWISE SPECIFIED:
 ① PERMANENTLY HOT STAMP NO. + DASH VERSION APPROX WHERE SHOWN USING .12 HIGH CHARAC.
 ② CLIP EARS OFF CONNECTOR.

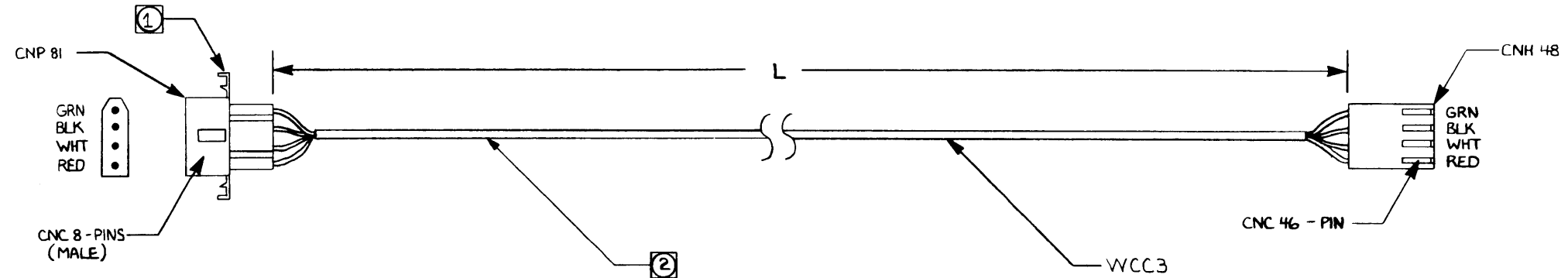
NEXT ASSY ASP 92-1/ASD

APPROVALS DRAWN A.B. 2-16-79 CHECKED R. [Signature] 7-2-79 ENGRG [Signature] 11/13/79 ME ENGR [Signature] 11/13/79 QA [Signature] 11/13/79 APP'D [Signature] 11-12-79		DATE DATE DATE DATE DATE		TYMSHARE 20705 VALLEY GREEN DR. CUPERTINO, CALIF. 95014	
Title MONITOR PANEL POWER CABLE				Project TYMNET ENGINE	
Size C		Number 160023-001		Scale: NONE REV: [Blank] Sheet 1 of 1	

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REVISIONS		
SYM	DESCRIPTION	APP
A	PRODUCTION RELEASE	A.B. <i>Dwb</i>
B	REV. PER ELO 79-33	JPT <i>Dwb</i>
C	REV PER ECO 81-116	

1
2
3
4
5



PART NUMBER	L- FEET
-001	3.0' ± 1"
-002	4.0' ± 1"
-003	5.5' ± 1"

NOTES: UNLESS OTHERWISE SPECIFIED.

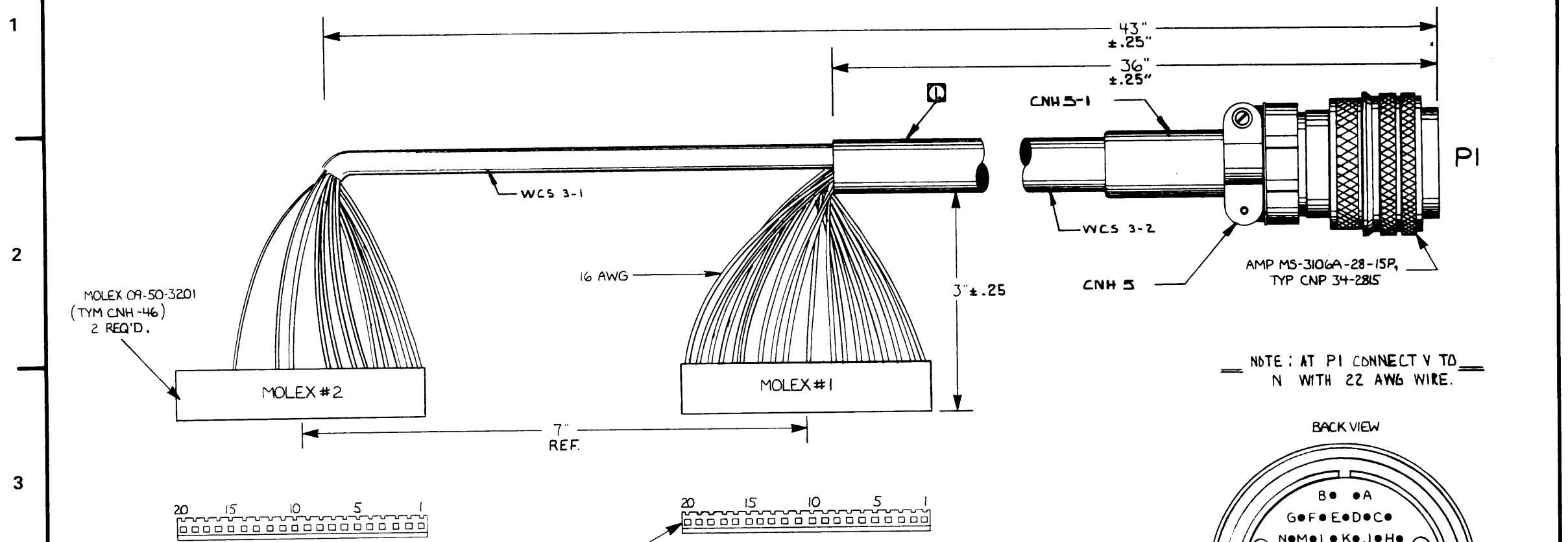
- ① CLIP EARS OFF CONNECTOR.
- ② PERMANENTLY HOT STAMP PART NO., DASH VERSION AND REV. LEVEL APPROX. WHERE SHOWN.

— NEXT ASSY. ASP 92-1/ASD —

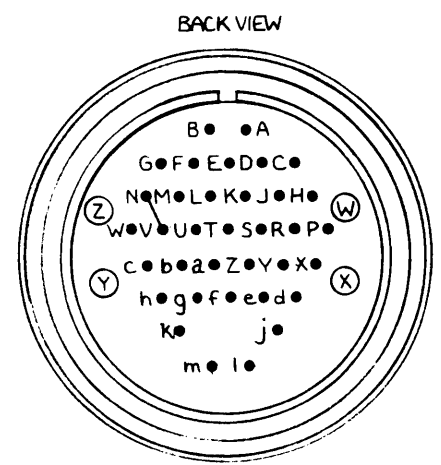
		20705 VALLEY GREEN DR. CUPERTINO, CALIF. 95014	
APPROVALS	DATE	Title	
DRAWN A.B.	7-3-79	POWER CONTROLLER & FAN CABLE	
CHECKED <i>H. Halloran</i>	2/26/80		
ENGRB <i>Bradley</i>	2/26/80		
MFG ENG <i>Bradley</i>	2/26/80		
QA <i>R. McSwain</i>	2/27/80		
APPD <i>Z. B. ...</i>	2-28-80	Project	Size Number
		TYMNET ENGINE	C 160032 -TAB
Scale: F1/1		REV. G	Sheet 1 of 1

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REVISIONS		
SYM	DESCRIPTION	APP
A	PRODUCTION RELEASE D.H. 2-15-79	2053
B	REV PER ECO 81-116	



NOTE: AT P1 CONNECT V TO N WITH 22 AWG WIRE.



NOTES: UNLESS OTHERWISE SPECIFIED
 ① PERMANENTLY HOT STAMP ASSY NO., DASH VERSION + REV. LEVEL APPROXIMATELY WHERE SHOWN.

MOLEX 08-56-0106 (TYM CNC-46) 31 REQ'D

MOLEX 2	SIGNAL	PI	MOLEX 2	SIGNAL	PI	MOLEX 1	SIGNAL	PI	MOLEX 1	SIGNAL	PI
1	RED	+5V	11			11	BRN	+16.5V SEN	A		
2	RED	+5V	12	VIO	+16.5V	12	VIO	+16.5V	E		
3	RED	+5V	13	BLU	-16.5V	13	BLU	-16.5V	K		
4	RED	+5V	14			14					
5	RED	+5V	15			15	YEL	-16.5V SEN	M		
6	RED	+5V	16	BLU	-16.5V	16	BLU	-16.5V	L		
7	RED	+5V	17			17	GRN	+5 SEN.COM	N		
8	RED	+5V	18			18	WHT	U.V. COLL.	U		
9	VIO	+16.5V	19			19	ORN	+16.5V SEN.COM	F		
10			20			20	GRN	-16.5V SEN.COM	G		

NEXT ASSEMBLY ASP 79-1/ASD

CONTRACT NO.

APPROVALS	DATE	APPROVALS	DATE
DRAWN D.H.	2-15-79	MFG ENG R.E.Z.	2/26/79
CHECKED R. Speed	7-5-79	QA R. M. Linn	11/1/79
ENGRG. R. Speed	2/26/80	APPD. B. Burns	2-26-80

TYMSHARE 20705 VALLEY GREEN DR. CUPERTINO, CALIF. 95014

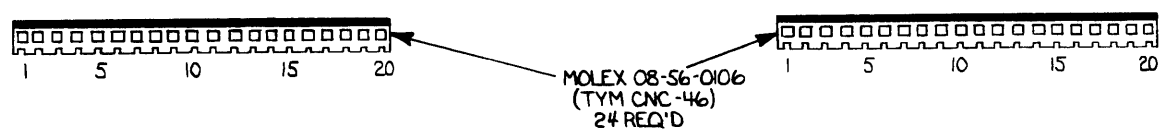
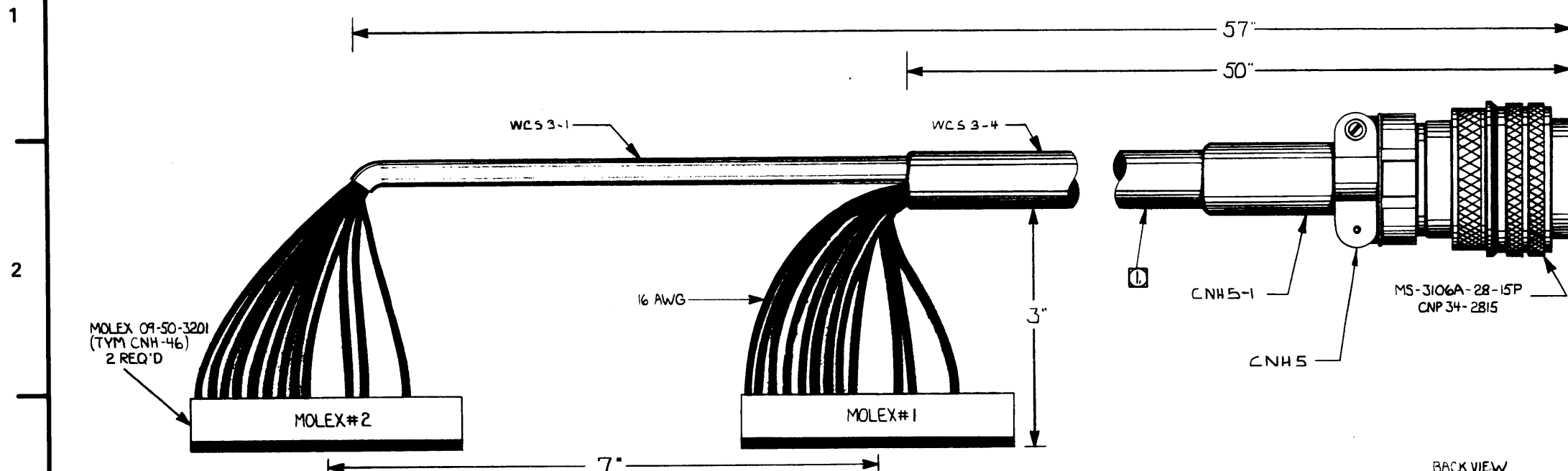
Title: POWER TO PRIMARY CHASSIS CABLE

Project: TYMNET ENGINE Size: C Number: 160031-001

Scale: FULL REYB Sheet 1 of 1

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REVISIONS		
SYM	DESCRIPTION	APP
I	PROTOTYPE RELEASE D.H. 4-3-78	D.H.B.
A	PRODUCTION RELEASE	D.H.B.
B	REV PER ECO 81-116	



NOTES: UNLESS OTHERWISE SPECIFIED
 [L] PERMANENTLY HOT STAMP ASSY NO., DASH VERSION + REV. LEVEL APPROXIMATELY WHERE SHOWN USING .12 HIGH CHARACTERS AND BLACK INK.

MOLEX 2	SIGNAL	P2	MOLEX 2	SIGNAL	P2	MOLEX 1	SIGNAL	P2	MOLEX 1	SIGNAL	P2
1	RED	+5V	11	VIO	+16.5V	1	RED	+5V	11	BLU	+16.5V
2	RED	+5V	12	VIO	+16.5V	2	RED	+5V	12	VIO	+16.5V
3	RED	+5V	13	BLU	-16.5V	3	RED	+5V	13	BLU	-16.5V
4	RED	+5V	14	BLU	-16.5V	4	RED	+5V	14	BLU	-16.5V
5	RED	+5V	15	YEL	-16.5V	5	RED	+5V	15	YEL	-16.5V
6	RED	+5V	16	BLU	-16.5V	6	RED	+5V	16	BLU	-16.5V
7	RED	+5V	17	GND	---	7	RED	+5V	17	GND	---
8	RED	+5V	18	GND	---	8	RED	+5V	18	GND	---
9	VIO	+16.5V	19	GND	---	9	VIO	+16.5V	19	GND	---
10	VIO	+16.5V	20	GND	---	10	VIO	+16.5V	20	GND	---

CONTRACT NO.

APPROVALS	DATE	APPROVALS	DATE
DRAWN D.H.	4-3-78	MFG ENGR	2/26/80
CHECKED R. Bond	7-5-79	QA Review	2/2/80
ENGRG. Franky	2/26/80	APPD B. Burns	2-28-80

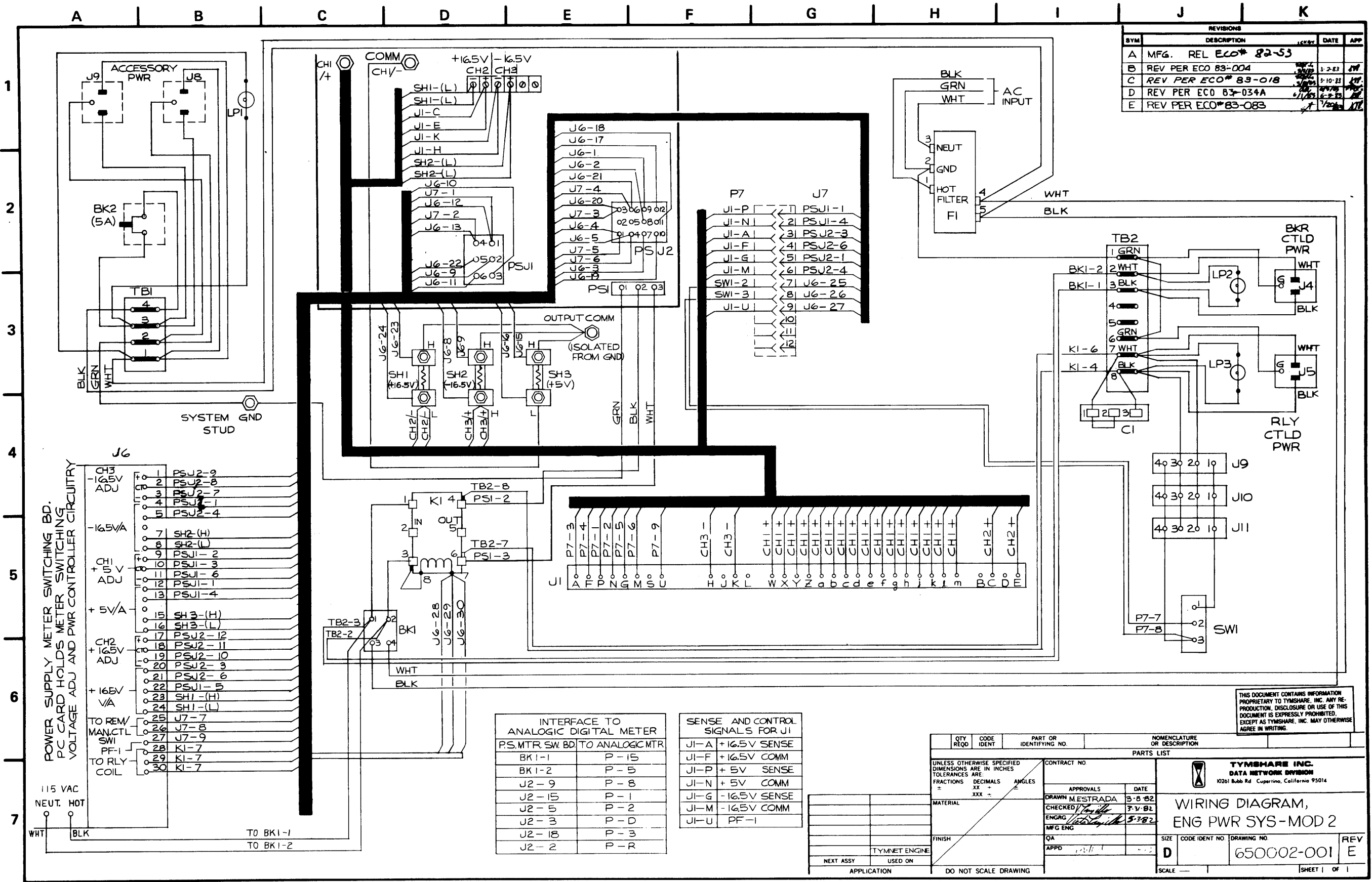
TYMSHARE 20705 VALLEY GREEN DR. CUPERTINO, CALIF. 95014

Title: POWER TO SECONDARY CHASSIS CABLE

Project: TYMNET ENGINE	Size: C	Number: 160022-001
------------------------	---------	--------------------

Scale: FULL REV. Sheet 1 of 1

NEXT ASSEMBLY - ASP 92-2/ASD



REVISIONS			
SYM	DESCRIPTION	DATE	APP
A	MFG. REL ECO# 82-53	3-2-82	JW
B	REV PER ECO# 83-004	3-10-82	JW
C	REV PER ECO# 83-018	4-10-82	JW
D	REV PER ECO# 83-034A	6-2-82	JW
E	REV PER ECO# 83-083	7-20-82	JW

POWER SUPPLY METER SWITCHING BD.
PC CARD HOLDS METER SWITCHING
VOLTAGE ADJ AND PWR CONTROLLER CIRCUITRY

INTERFACE TO ANALOGIC DIGITAL METER	
P.S.MTR. SW. BD.	TO ANALOGIC MTR
BK1-1	P-15
BK1-2	P-5
J2-9	P-8
J2-15	P-1
J2-5	P-2
J2-3	P-D
J2-18	P-3
J2-2	P-R

SENSE AND CONTROL SIGNALS FOR J1	
J1-A	+16.5V SENSE
J1-F	+16.5V COMM
J1-P	+5V SENSE
J1-N	+5V COMM
J1-G	-16.5V SENSE
J1-M	-16.5V COMM
J1-U	PF-1

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 ± .005 ± .001 ± .001			
APPROVALS		CONTRACT NO.	
DRAWN M. ESTRADA	DATE 3-8-82		
CHECKED [Signature]	DATE 3-11-82		
ENGRG [Signature]	DATE 3-30-82		
MFG ENG			
QA		SIZE	CODE IDENT NO.
APPD [Signature]		D	650002-001
APPLICATION		DO NOT SCALE DRAWING	SCALE
			SHEET 1 OF 1

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TYMSHARE INC.
DATA NETWORK DIVISION
10261 Bubb Rd. Cupertino, California 95014

WIRING DIAGRAM,
ENG PWR SYS-MOD 2

REV E