WANG

CUSTOMER ENGINEERING

I.B.0-S1

SCHEMATIC RELEASE NO. 31

JUNE 1981

REORDER NUMBER
729-0970

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DATE: June 15, 1981

This release package contains the following logicblock/schematic drawings, applicable to the designated drawing-revision and electrical-revision levels:

DRAWING NUMBER	DRAWING REVISION	ELECTRICAL REVISION	NO. OF SHEETS	EQUIPMENT NOMENCLATURE
210-6727	22/5	5	2	INTEL Memory & Regulator with Underscore
210-6793	10/4	3	1	Registers & I/O
-6793-1		4		
210-7091	11/4	4	1	Victor Printer Control
210-7111	15/12	12	3	10-Meg/Floppy Adapter SSSD
210-7114	21/10	10	4	Large Disk Device Adapter
210-7121	16/7	7	2	Workstation CRT & Controller Board
210-7209	14/8	8	1	Power Supply Regulator with Current Feedback
210-7218	14/6	6	3	IBM 3741 Shugart Board
210-7290	12/3	3	1	8080 Interactive Terminal Controller
-7290-1		3		
210-7309	8/2	2	5	Wang Daisy Control w/Twin Sheet Feeder
210-7332	15/10	4	4	12 Solenoid Head CPU Board
210-7360	22/10	10	3	Servo Control Board
-7360-1		3		
210-7364	12/7	7	2	Power Supply Regulator
-7364-1		0		
210-7390	8/6	6	2	Interface Board
210-7421	7/3	3	4	ALU/Mux Interface Motherboard
210-7422	8/4	4	6	ECC/Device Interface
210-7424	12/9	9	4	I/O Controller
210-7425	13/1	1	2	Workstation CRT Control w/TC Option
-7425-1		1		
-7425-2		1		
-7425-4		0		
210-7426	19/5	5	11	TCP, IOP Motherboard (16K RAM Type)
210-7478	13/4	4	6	Remote TC Workstation Controller
210-7501	16/3	3	6	CPU And Memory
210-7515	5/2	2	4	Triple Controller Motherboard
210-7538	4/3	3	4	Slave Typesetter Controller
210-7546	7/1	1	5	Motherboard
-7546-1		1		
210-7592	26/5	5	8	Single-Board Terminal Electronics
-7592-1		0		
210-7656	6/3	3	2	Two-Board Workstation Regulator (Interconnection Diagram)
-7656-900				
210-7669	8/5	5	2	CRT High Voltage Supply
210-7688	3/2	2	3	Disk/Mux Controller Motherboard
210-7695	7/4	4	5	Fixed/Floppy Disk Controller
210-7696	8/1	1	5	Microcomputer & Memory
210-7887	4/2	2	2	Regulator w/Dual Inlines
210-8695	4/2	2	4	Fixed/Floppy Disk Controller

LOCATION	W.L. PART No.	PIN No. ±0V	PIN No. +5VR
L1, 12, 25, 29	376-0025	7	14
L2, 4	376-0002	7	14
L3	376-0011	10	5
L14, 22, 31, 33	376-0081	7	14
L5, 8, 13, 15, 27, 35	376-0059	7	14
L6, 7, 26	376-0093	7	14
L9, 23	376-0082	8	16
L10, 28	376-0055	7	14
L11, 30, 32	376-0005	11	4
L16, 24	376-0066		
L17	376-0010	7	14
L18	376-0047	8	16
L19	SEE CHART		12
L20, 21	SEE CHART	12	24
L34	376-0104	8	16
L19, 20, 21	376-9003		

COMPONENT	W.L. PART No.
R1-13, 25-33, 63, 64, 65, 67	330-3047
R14, 15	336-1007
R16 - 24, 62	330-2068
R34 - 42	332-1033
R43 - 51	330-2022
R52, 73	336-1014
R53, 59	330-2047
R54	330-1022
R55	330-3039
R56	330-3027
R57	330-2033
R58	331-1033
R60	330-2015
R61, 81, 90	330-4010
R66, 69, 72, 77	330-3022
R68	331-2010
R70, 71	330-3033
R74	330-2082
R75, 87	332-2018
R76, 86	330-3056
R78	332-2047
R79	330-4012
R80	330-3018
R82	330-5015
R83	330-1068
R84	330-2010
R85	330-3015
R88	331-2012
C1	300-1470
C2	300-1680
C3, 19	300-1906
C4, 8	300-1911
C5, 9	300-1913
C6, 7	300-1904
C10, 13	300-4002
C11, 12	300-1910
C15	300-1901
C16, 20, 21, 28	300-4021
C17, 14	300-1903
C18, 22 — 27	300-1900
R89	330-3010
D1-13, 18, 19, 22, 23, 25-28.	380-1001
D15	380-2039
D16, 17	380-3003
D20, 24	380-2042
D21	380-2051
D14	380-2120
Q1	375-1032M
Q2, 7	375-0017
Q3, 4, 11-19	375-1026
Q5, 8, 9, 10	375-1027
Q6	375-0018
SW-1 COVER	325-9045
TRAN. PAD LARGE	375-9001
TRAN PAD SMALL	375-9004
HEAT SINK	375-9010
SW-1 5BANK ROCKER SW.	325-1501

E - REV 5

NO.	REVISION	DATE	BY
0/0	DRAWN PER D.. #F073 APP'D Chen 3/1/76	12-15-75	JB
1/0	REVISED PER RFA# 1953 APP'D Chen 3/1/76	2-19-76	GD
2/1	REVISED PER ECN # 6289 APP'D 3-4-77	1-21-77	JB
3/1	REVISED PER ECN 7200 & 7006 APP'D 8-1-77	8-1-77	LK
4/1	REVISED PER ECN # 9635 APP'D 12-5-78	[illegible]-21-78	SD
5/1	REVISED PER ECN # 10621 APP'D 9-25-79	9-20-79	AB
6/2	REVISED PER ECN# 11338 APP'D 9-25-79	9-25-79	AB
7/2	REVISED PER ECN # 11525, 11864 APP'D 9-25-79	9-25-79	AB
8/3	REVISED PER ECN # 12815 APP'D 10/26/79	10-26-79	L.D.
9/4	REVISED PER ECN# 13283 APP'D 12-6-79	12-6-79	L.D.
10/4	REVISED PER ECN# 13536 APP'D 12-7-79	12-7-79	L.D.
11/4	REVISED PER ECN# 14257 APP'D 2-26-80	2-22-80	L.D.
12/5	REVISED PER ECN# 14557 APP'D 4-23-80	3-31-80	L.D.
13/5	REVISED PER ECN# 15276 & 15499 APP'D 6-19-80	6.18.80	AM
14/5	REVISED PER ECN# 11888 & 15505 APP'D 11-6-80	6-28-80	L.D.B.
15/5	REVISED PER ECN# 16335 APP'D 11-6-80	11-6-80	L.D.
16/5	REVISED PER ECO# 17065 17190 APP'D 12-16-80	12-6-80	T.K.
17/5	REVISED PER ECO# 17371 APP'D [illegible]	12-31-80	T.R.
18/5	REVISED PER ECO# 17513 APP'D 1/19/81	1-13-81	JEP
19/5	REVISED PER ECO# 17979 APP'D 2-6-81	2-5-81	TK
20/5	REVISED PER ECO# 17773 APP'D 2/18/81	2-13-81	JEP
21/5	REVISED PER ECO# 18295 APP'D 3/6/81	3-5-81	R.B.R.
22/5	REVISED PER ECO# 18932 APP'D 4-30-81	4-30-81	F.S.S.

WANG PART NO.	ITEM	QTY.	NAME	MATERIAL	DESCRIPTION

Qty. Per Unit	FIRST USED ON	ASSY USED ON

WANG LABORATORIES, INC.
TEWKSBURY, MASS. U. S. A.

	BY	DATE	APPROVED BY	DATE
DWN	JB	12-15-75	E ENGR R. Chen	3/1/76
CHK	G.D.	3-1-76	M ENGR	
E. C. CONTROL			MFG ENGR	

MATERIAL

MODEL NO. 2221 W

SEE ENGRG SPECIFICATIONS No.

FINISH

TOL. EX. AS NOTED
.XX ± .010 FRAC. ± 1/64
.XXX ± .005 ANG. ± 1°30' FINISH 125√

SCALE SHT 1 OF 2

TITLE SCHEMATIC, INTEL MEMORY AND REGULATOR WITH UNDERSCORE

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	E	6727	22

DO NOT SCALE

	210 = 209 + 377 OR 378				
MODEL	210	209	L19	L20	L21
2200 ASCII	6727-A	6727	378-0508	378-2004	378-2005
2200 CYRILLIC	6727-B	6727	378-0156	378-2037	378-2038
2200 KATAKANA	6727-C	6727	OPEN	378-2039-R2	378-2040-R2
928 ASCII	6727-D	6727	378-0520-R2	378-2048-R2	378-2049-R2
2221W LATIN	6727-E	6727	378-0531	378-2055	378-2056
2221W FRENCH	6727-F	6727	378-0537	378-2071	378-2072
2221W HEBREW	6727-H	6727	378-0543	378-2074	378-2075
2221W SWEDISH	6727-J	6727	378-0563	378-2241	378-2242
2221W GERMAN	6727-K	6727	378-0563	378-2241	378-2243-R1
2221W NOR/DAN	6727-L	6727	378-0575-R1	378-2309-R1	378-2310-R2
2221W SPANISH	6727-M	6727	378-0563	378-2241	378-2311
2221W AZERTY	6727-N	6727	378-0584-R1	378-2341-R1	378-2342-R1
2221W SWEDISH	6727-P	6727	378-0585	378-2343	378-2344
2221W NORWAY	6727-Q	6727	378-0586	378-2345	378-2346
2221W U.K.	6727-R	6727	378-0587	378-2347	378-2348
2221W NETH.	6727-S	6727	378-0588	378-2349	378-2350
2221W SWISS/FRENCH	6727-T	6727	378-0589	378-2351	378-2352
2221W GERMAN	6727-U	6727	378-0590	378-2353	378-2354
2221W CYRILLIC/LATIN	6727-V	6727	378-0591	378-2355	378-2356
2221W GREEK/LATIN	6727-W	6727	378-0592	378-2357	378-2358
KATAKANA	6727-X	6727	OPEN	378-2452	378-2453
2221V-I GREEK/LATIN	6727-Y	6727	378-0721	378-2696	378-2697
2221W ST. ASCII	6727-Z	6727	378-0631-R5	378-2523-R5	378-2524-R5
ICELANDIC	6727-AA	6727	378-0727	378-2707	378-2708
2221W GREEK VS	6727 AB	6727	378-0721	378-2696	378-2697
2221W CANADIAN	6727-AC	6727	378-0731	378-2713	378-2714
5521 EAST. EUROPE	6727-AD	6727	378-0726-R1	378-2698-R1	378-2699-R1

NO.	REVISION	BY	DATE
	SEE SHEET 1		

OGILVIE PRESS

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	L.D.B.	6-28-80	E ENGR R.CHEN	6/30/80
CHK	D.B.L.	6/30/80	M ENGR	
			MFG ENGR	

MATERIAL —

MODEL NO. 2221W

SEE ENGRG. SPECIFICATIONS

No.

FINISH —

TOL. EX. AS NOTED
XX ± FRAC. ±
XXX ± ANG. ± FINISH √

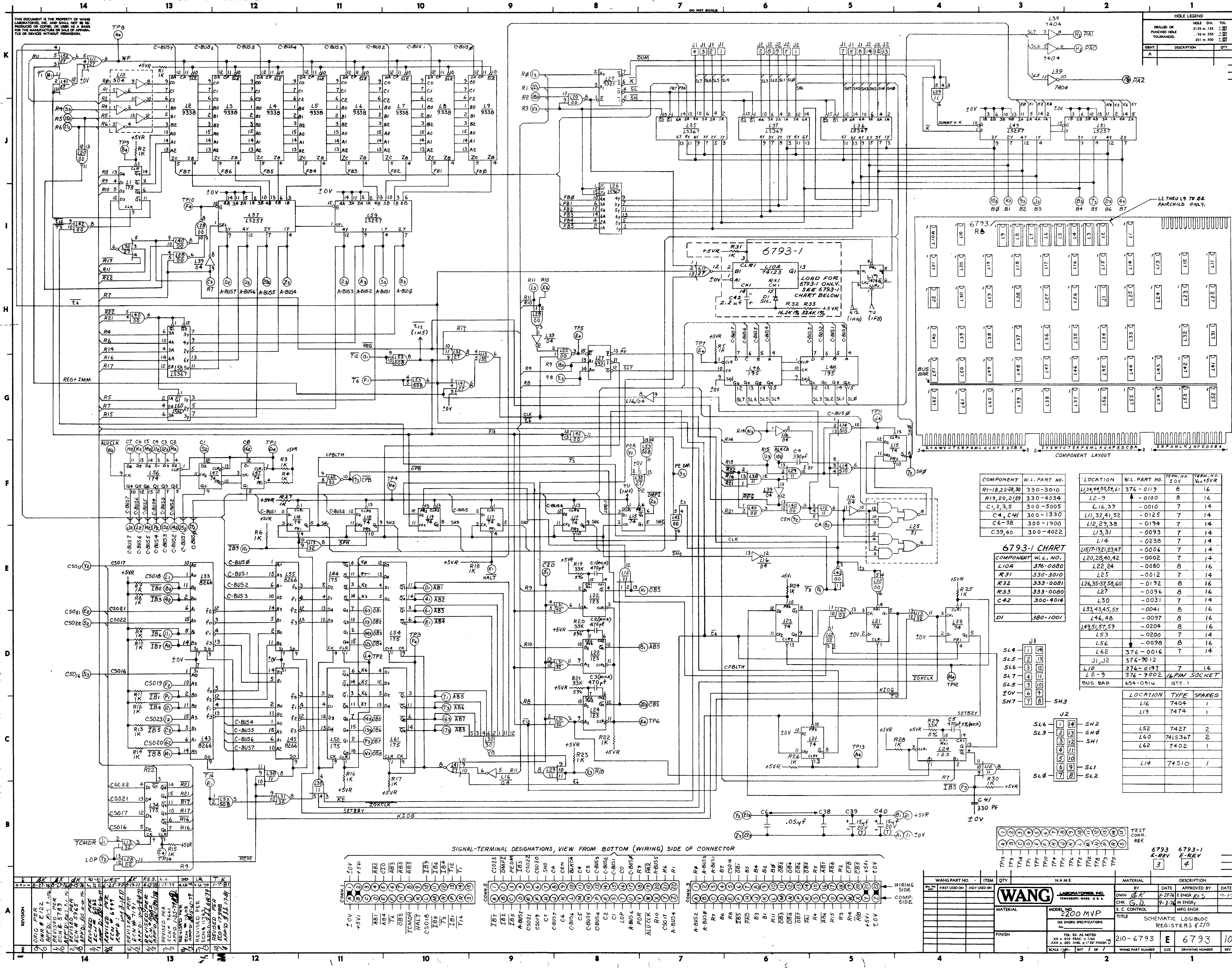
SCALE — SHT 2 OF 2

TITLE INTEL MEMORY & REGULATOR WITH UNDERSCORE

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	D	6727	22

"E" PRG

D 6727



COMPONENT	W.L. PART NO.
R1-18,22-28,30	330-3010
R19,20,21,29	330-4034
C1,2,3,5	300-5005
C4, C41	300-1330
C6-38	300-1900
C39,40	300-4022

6793-1 CHART

COMPONENT	W.L. NO.
L10A	376-0080
R31	330-3010
R32	333-0081
R33	333-0080
C42	300-4014
D1	380-1001

LOCATION	W.L. PART NO.	TERM. NO. ±0V	TERM. NO. Vcc +5VR
L1,34,44,50,54,61	376-0119	8	16
L2-9	-0100	8	16
L16,39	-0010	7	14
L11,32,41,52	-0125	7	14
L12,29,38	-0194	7	14
L13,31	-0093	7	14
L14	-0238	7	14
L15,17-19,21,23,47	-0006	7	14
L20,28,40,42	-0002	7	14
L22,24	-0080	8	16
L25	-0012	7	14
L26,35-37,58,60	-0192	8	16
L27	-0096	8	16
L30	-0031	7	14
L33,43,45,55	-0041	8	16
L46,48	-0097	8	16
L49,51,57,59	-0204	8	16
L53	-0200	7	14
L56	-0098	8	16
L62	376-0016	7	14
J1,J2	376-9012		
L10	376-0197	7	14
L2-9	376-9002	16 PIN SOCKET	
BUS BAR	654-0516	QTY. 1	

LOCATION	TYPE	SPARES
L16	7404	1
L19	7474	1
L52	7427	2
L60	74LS367	2
L62	7402	1
L14	74S10	1

6793 E-REV 3   6793-1 E-REV 4

WANG PART NO.	ITEM	QTY.	NAME	MATERIAL	DESCRIPTION

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN GK	8-27-76	E ENGR ReS	9-1-76
CHK G.D.	9-3-76	M ENGR	
E. C. CONTROL		MFG ENGR	

MODEL NO. 2200 MVP

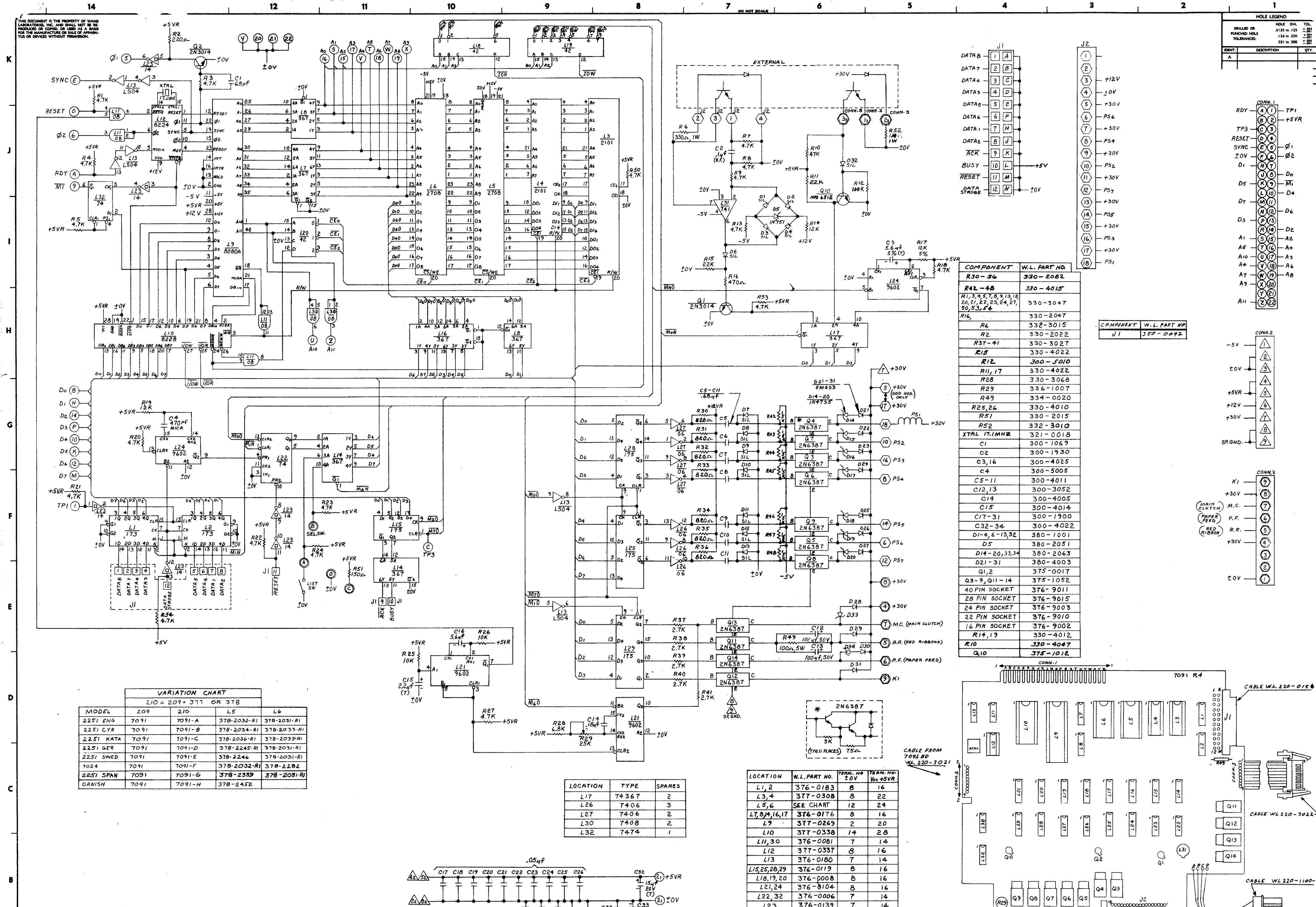
SEE ENGRG SPECIFICATIONS No.

TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 125

SCALE — SHT 1 OF 1

TITLE SCHEMATIC LOGIBLOC REGISTERS & I/O

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-6793	E	6793	10



COMPONENT	W.L. PART NO.
J1	350-0042

COMPONENT	W.L. PART NO.
R30-36	330-2082
R42-48	330-4015
R1,3,4,5,7,8,9,13,18, 20,21,22,23,24,27, 50,53,54	330-3047
R16,	330-2047
R6	332-3015
R2	330-2022
R37-41	330-3027
R15	330-4022
R12	300-5010
R11, 17	330-4022
R28	330-3068
R29	336-1007
R49	334-0020
R25,26	330-4010
R51	330-2015
R52	332-3010
XTAL 17.1MHZ	321-0018
C1	300-1069
C2	300-1930
C3,16	300-4025
C4	300-5005
C5-11	300-4011
C12,13	300-3052
C14	300-4005
C15	300-4014
C17-31	300-1900
C32-34	300-4022
D1-4,6-13,32	380-1001
D5	380-2051
D14-20,33,34	380-2063
D21-31	380-4003
Q1,2	375-0017
Q3-9, Q11-14	375-1052
40 PIN SOCKET	376-9011
28 PIN SOCKET	376-9015
24 PIN SOCKET	376-9003
22 PIN SOCKET	376-9010
16 PIN SOCKET	376-9002
R14,19	330-4012
R10	330-4047
Q10	375-1012

	VARIATION CHART			
	210 = 209 + 377 OR 378			
MODEL	209	210	L5	L6
2251 ENG	7091	7091-A	378-2032-R1	378-2031-R1
2251 CYR	7091	7091-B	378-2034-R1	378-2033-R1
2251 KATA	7091	7091-C	378-2036-R1	378-2035-R1
2251 GER	7091	7091-D	378-2245-R1	378-2031-R1
2251 SWED	7091	7091-E	378-2246	378-2031-R1
9024	7091	7091-F	378-2032-R1	378-2282
2251 SPAN	7091	7091-G	378-2339	378-2081-R1
DANISH	7091	7091-H	378-2452	

LOCATION	TYPE	SPARES
L17	74367	2
L26	7406	3
L27	7406	2
L30	7408	2
L32	7474	1

LOCATION	W.L. PART NO.	TERM. NO ±0V	TERM. NO Vcc +5VR
L1,2	376-0183	8	16
L3,4	377-0308	8	22
L5,6	SEE CHART	12	24
L7,8,14,16,17	376-0176	8	16
L9	377-0269	2	20
L10	377-0338	14	28
L11,30	376-0081	7	14
L12	377-0337	8	16
L13	376-0180	7	14
L15,25,28,29	376-0119	8	16
L18,19,20	376-0008	8	16
L21,24	376-0104	8	16
L22,32	376-0006	7	14
L23	376-0139	7	14
L26,27	376-0055	7	14
L31	376-0074		

1. ALL I.C. CHIPS ARE 7400 SERIES UNLESS OTHERWISE SPECIFIED.

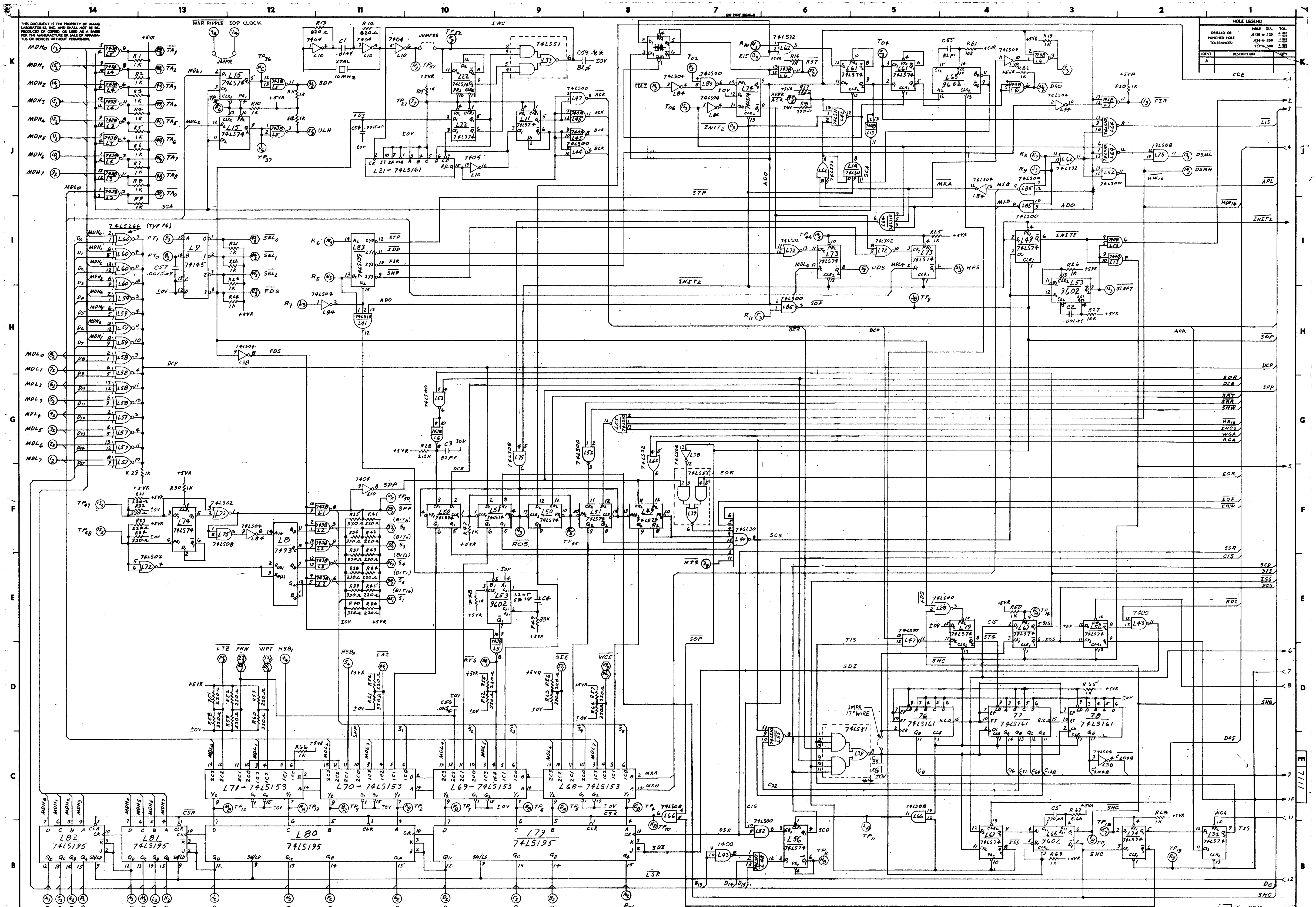
NOTES

BY	BK	BK	BK	[illegible]	[illegible]	[illegible]	[illegible]	SD	LL	L.O.	Q.B	T.K.
DATE	10-13-76	10-13-76	10-13-76	10-18-76	3-9-77	3-9-77	4-29-77	[illegible]	12-14-78	5-7-79	9-17-79	1-2-81

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

MODEL NO.	2251
DWN	10-13-76
CHK	11-11-76
E ENGR	F. LEE 11/11/76
TITLE	SCHEMATIC LOGIBLOC VICTOR PRINTER CONTROL
WANG PART NUMBER	210-7091
SIZE	E
DRAWING NUMBER	7091
REV.	11
SCALE	— SHT 1 OF 1

TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 128



WANG PART NO.	ITEM	QTY.	NAME	MATERIAL	DESCRIPTION

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN	4/29/77	E ENGR	5/5/77
CHK		M ENGR	
E. C. CONTROL		MFG ENGR	

MODEL NO. 2200VS

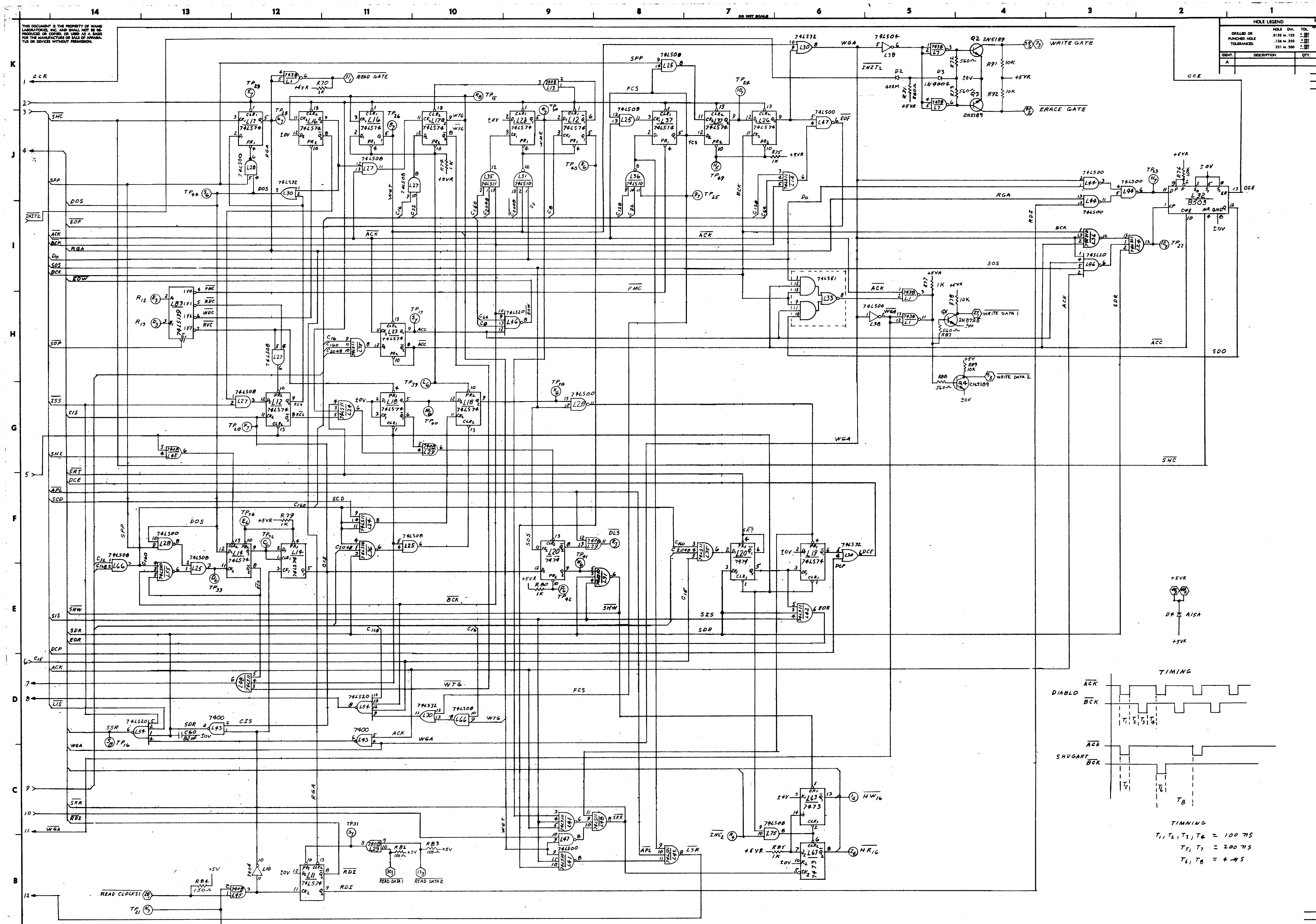
SEE ENGRG SPECIFICATIONS No.

TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 125

TITLE 10 MEG/FLOPPY ADAPTER SSSD

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7111	E	7111	15

SCALE — SHT 1 OF 3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DO NOT SCALE
HOLE LEGEND
READ GATE
WRITE GATE
ERACE GATE
WRITE DATA 1
WRITE DATA 2
READ DATA 1
READ DATA 2
READ CLOCKS 1
READY CLOCKS 2
TIMING
DIABLO
SHUGART
TIMMING
T_1, T_2, T_3, T_4 = 100 ns
T_5, T_7 = 200 ns
T_6, T_8 = 4 µs
REVISION
SEE SHEET 1

WANG PART NO.	ITEM	QTY.	NAME	MATERIAL	DESCRIPTION

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN		4/28/77	E ENGR	
CHK			M ENGR	
E. C. CONTROL			MFG ENGR	

MODEL NO. 2200 VS

SEE ENGRG SPECIFICATIONS No.

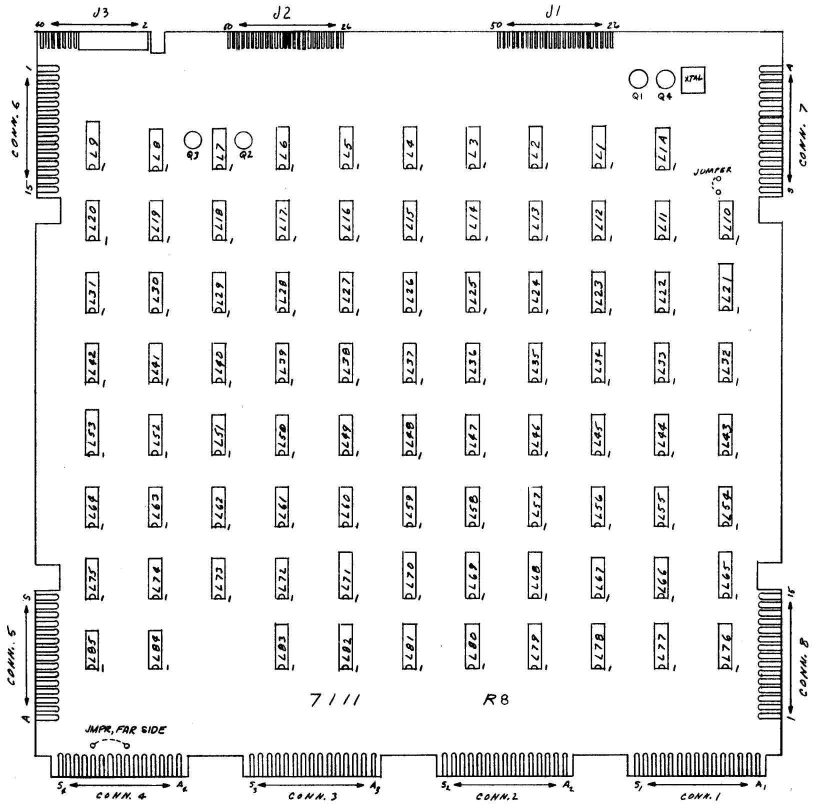
TITLE 10 MEG/FLOPPY ADAPTER SSSD

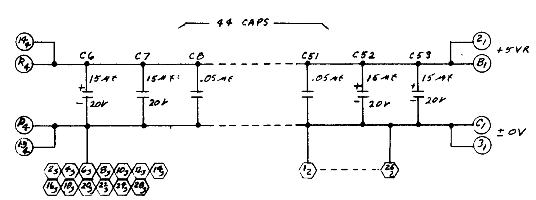
TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 125

SCALE — SHT 2 OF 3

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7111	E	7111	15

HOLE LEGEND

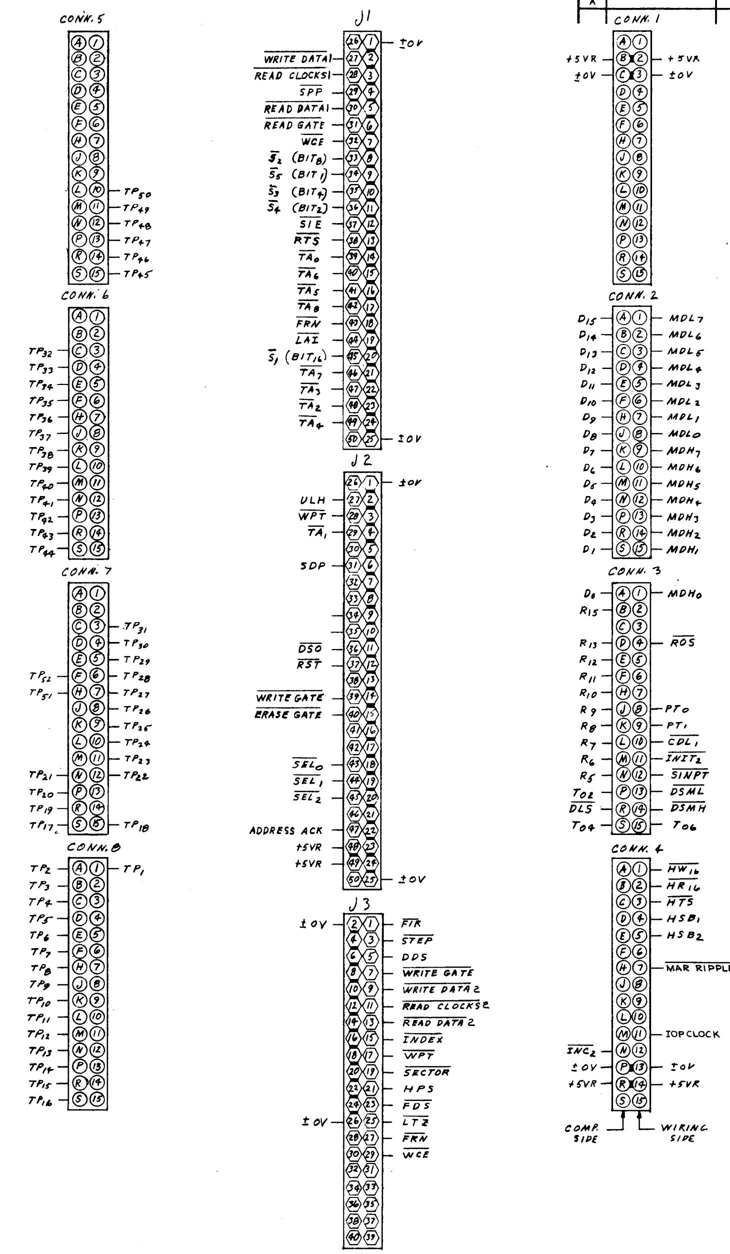




LOCATION	W.L. PART NO.	PIN NO. ±0V	PIN NO. +5VR
L1A, 24, 35, 42, 48	376-0225	7	14
L1- 7	376-0128	7	14
L8	376-0011	10	5
L9	376-0069	8	16
L38, 84	376-0180	7	14
L11, 12, 14-19, 22, 23, 26, 34, 37, 49, 50, 51, 56, 61, 67, 73, 74	376-0155	7	14
L13, 29, 45	376-0081	7	14
L21, 76, 77, 78	376-0233	8	16
L25, 27, 66, 75	376-0153	7	14
L28, 44, 47, 52, 85	376-0207	7	14
L30, 62	376-0211	7	14
L31, 36, 41, 55, 64	376-0209	7	14
L32	376-0440	7	14
L33, 39	376-0213	7	14
L40	376-0249	7	14
L46, 54	376-0210	7	14
L53, 65	376-0104	8	16
L57-60	376-0148	7	14
L63	376-0005	11	4
L68-71	376-0156	8	16
L72	376-0208	7	14
L79-82	376-0248	8	16
L83	376-0226	8	16
L10	376-0010	7	14
L20	376-0006	7	14
L43	376-0000	7	14

I.C. TYPE	LOCATION	SPARE
7408	L29	1
74LS10	L31	1
74LS11	L1A	1
7438	L7	1

COMPONENT	W.L. PART NO.
R1-12, 15, 16, 19-26, 29, 30, 47, 48, 50, 65, 66, 68, 69, 70, 74, 75, 77, 79, 80, 85, 86	330-3010
R13, 14	330-2082
R17, 31, 33, 41-46, 51-57,	330-2022
R18, 32, 34-40, 58-64	330-2033
R27, 78, 81, 89, 91, 92, 76	330-4010
R28	330-3022
R49	330-4033
R67	330-3056
R71, 72, 73, 87, 88	330-2056
R82, 83, 84, 90	330-2015
C58	300-1100
C1	300-1903
C2	300-1906
C3, 55, 59, 60	300-1082
C4	300-4026
C5	300-1330
C6, 7, 52, 53	300-4022
C8-51	300-1900
C54, 56, 57	300-1907
Q2, 3, 4	375-1021
Q1	375-1027
J1, 2	350-2097
D2	380-0001
D3	380-4000
D4	380-3008
XTAL 10 MHz	321-0008



WANG PART NO.	ITEM	QTY.	NAME	MATERIAL	DESCRIPTION

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN J-G	4/28/77	E ENGR	
CHK		M ENGR	
E. C. CONTROL		MFG ENGR	

MATERIAL

MODEL NO. 2200VS

SEE ENGRG SPECIFICATIONS No.

FINISH

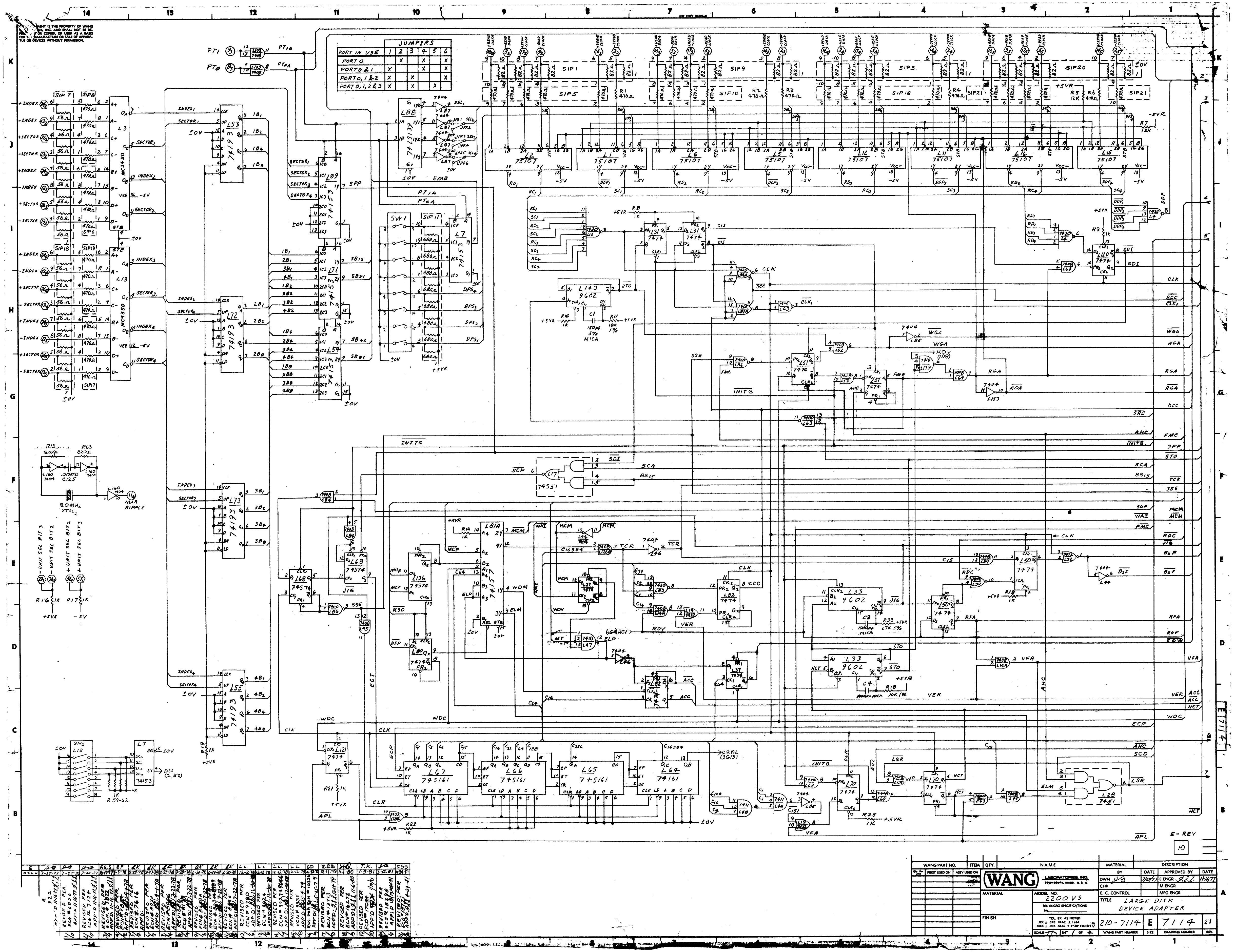
TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 125

SCALE — SHT 3 OF 3

TITLE 10 MEG/FLOPPY ADAPTER SSSD

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7111	E	7111	15

REVISION SEE SHEET 1


JUMPERS
PORT IN USE
PORT 0
PORT 0 & 1
PORT 0, 1 & 2
PORT 0, 1, 2 & 3
75107
74193
74S74
74161
74S161
9602
MC3450
INITG
CLK
WDC
SCA
FMC
AHC
APL
LSR
VFA
WGA
RGA
E-REV
10
WANG LABORATORIES, INC.
MODEL NO. 2200 VS
TITLE LARGE DISK DEVICE ADAPTER
210-7114
E
7114
21
SHT 1 OF 4

DO NOT SCALE

WANG PART NO.	ITEM	QTY	NAME	MATERIAL	DESCRIPTION
DWG NO.	FIRST USED ON	ASSY USED ON	WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.	BY	DATE / APPROVED BY / DATE
			MODEL NO. 2200VS	DWN.	
			SEE ENGRG SPECIFICATIONS No.	CHK	M ENGR
			MATERIAL	E. C. CONTROL	MFG ENGR
			FINISH	TOL. EX. AS NOTED .XX ± .010 TRAC ± 1/64 .XXX ± .005 ANG. ± 1/30' FINISH	TITLE LARGE DISK DEVICE ADAPTER
				SCALE	SHT 2 OF 6
				210-7114	E 7114 21
				WANG PART NUMBER	SIZE / DRAWING NUMBER / REV.

REVISION — SEE SHT 1

DO NOT SCALE

HOLE LEGEND

DRILLED OR PUNCHED HOLE TOLERANCES:	HOLE DIA.	TOL.
	.015 to .125	± .001
	.126 to .250	± .002
	.251 to .500	± .003

IDENT.	DESCRIPTION	QTY.
A		

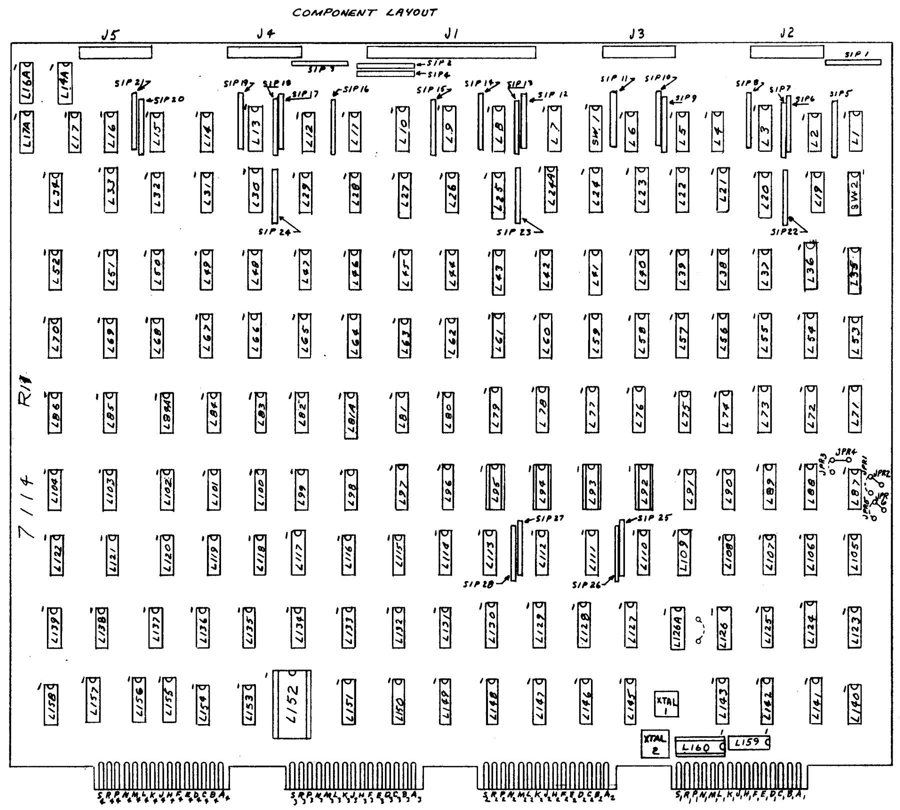
REVISION

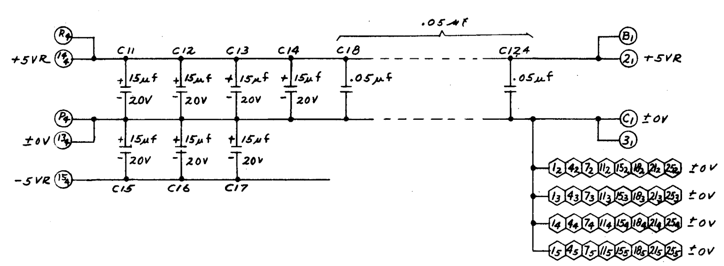
SEE SHT 1

WANG PART NO.	ITEM	QTY	NAME	MATERIAL	DESCRIPTION
QTY/ASSY	FIRST USED ON	ASSY USED ON	WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.		BY / DATE / APPROVED BY / DATE
					DWN JB 7/8/75 / E ENGR
					CHK / M ENGR
					E. C. CONTROL / MFG ENGR
			MODEL NO. 2200VS		TITLE LARGE DISK DEVICE ADAPTER
			SEE ENGNG SPECIFICATIONS No.		
			MATERIAL	FINISH	
			TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1/2° FINISH 125		210-7114 / E / 7114 / 21
			SCALE 2/1 SHT 2 OF 7		WANG PART NUMBER / SIZE / DRAWING NUMBER / REV.

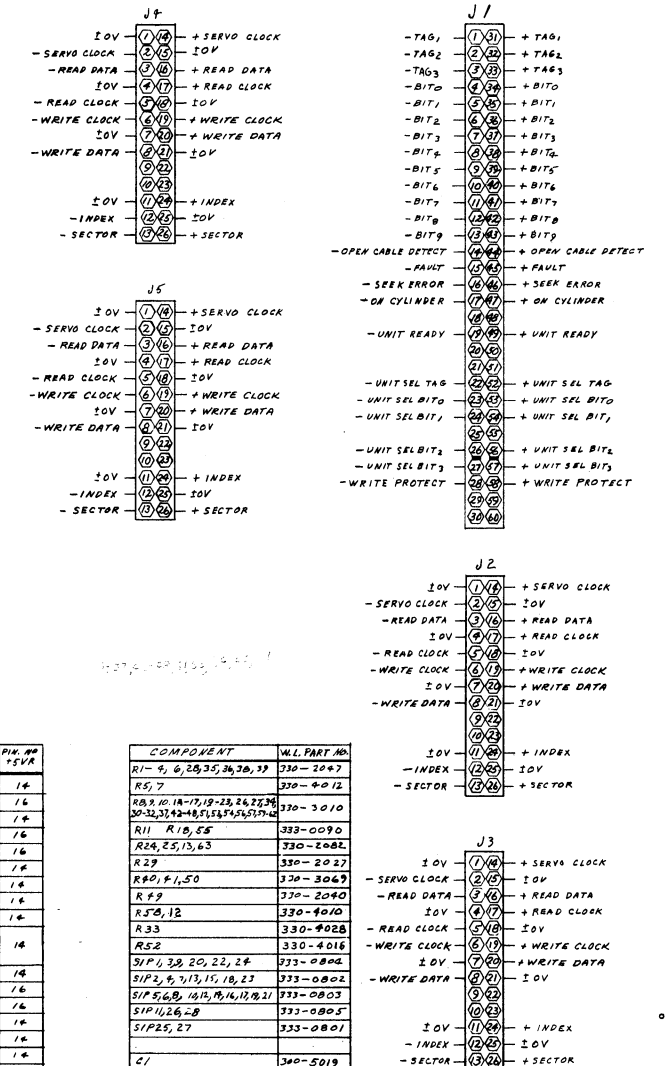
DO NOT SCALE

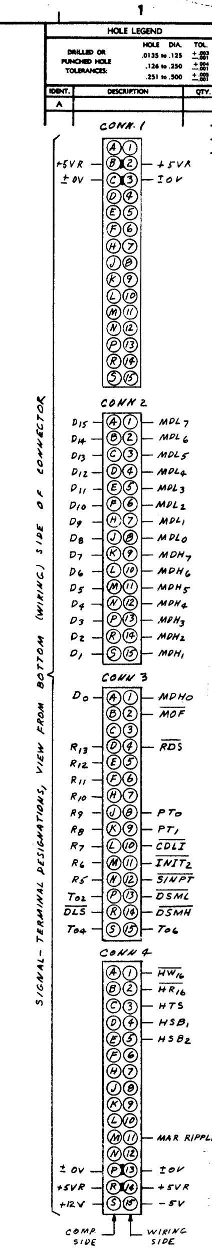
COMPONENT LAYOUT





I.C. TYPE	LOCATION	SPARE
7404	L44	1
	L87	1
	L90	3
	L108	1
7414	L159	3
7408	L126A	2
7411	L16A	1
7420		
	L91	1
	L134	1
7427	L140	1
7474	L121	1
7410	L47	1
7486	L137	1
74LS139	L88	1
	L117	1
7404	L160	3





I.C. LOCATION	W.L. PART No.	PIN NO ±0V	PIN. NO +5VR
L1, 2, 5, 6, 11, 12, 15, 16, 26	376-0146	7	14
L3, 8, 13	376-0275	8	16
L4, 83, 91, 134	376-0004	7	14
L7, 54, 58-61, 71, 76-79, 89	376-0048	8	16
L9, 10, 20, 25, 27, 30	376-0274	8	16
L14, 39, 40, 75, 81, 132	376-0031	7	14
L14A, 45, 52, 69, 84, 98, 103, 106, 118, 126A	376-0081	7	14
L16A, 48, 125, 158	376-0194	7	14
L17	376-0184	7	14
L17A, 31, 34, 49, 50, 51, 62, 70, 80, 82, 100, 101, 104, 107, 115, 116, 119-123, 126, 131, 133, 37	376-0006	7	14
L19, 154	376-0093	7	14
L21-24, 56, 57, 110-113, 124	376-0119	8	16
L24A, 33, 142, 143	376-0104	8	16
L28	376-0012	7	14
L29, 68, 136	376-0202	7	14
L32, 135, 138	376-0016	7	14
L35, 36, 109	SPARE		
L38, 42, 74, 137	376-0036	7	14
L41, 43	376-0098	8	16
L44, 46, 85, 87, 90, 108, 153, 160	376-0010	7	14
L47, 139	376-0003	7	14
L53, 55, 72, 73, 97, 114, 141, 157	376-0055-1	8	16
L63, 86, 99, 102, 105	376-0002	7	14
L64	376-0094	8	16
L65, 66, 67	376-0278	8	16
L81A, 96, 149, 150, 151	376-0082	8	16
L84A	376-0092	7	14
L88, 117	376-0226	8	16
L92, -95	376-0113	8	16
L127, -130	376-0097	8	16
L140	376-0125	7	14
L145-148	376-0138	8	16
L159	376-0139	7	14
L152	376-0090	12	24
L155, 156	376-0220	8	16
L92-95 SOCKET 16PIN	376-9005		
L144 NOT USED	—	—	—

COMPONENT	W.L. PART No.
R1-4, 6, 28, 35, 36, 38, 39	330-2047
R5, 7	330-4012
R8, 9, 10, 14-17, 19-23, 26, 27, 34, 30-32, 37, 42-48, 51, 53, 54, 56, 57, 59-62	330-3010
R11 R18, 55	333-0090
R24, 25, 13, 63	330-2082
R29	330-2027
R40, 41, 50	330-3069
R49	330-2040
R58, 12	330-4010
R33	330-4028
R52	330-4016
SIP 1, 3, 9, 20, 22, 24	333-0804
SIP 2, 4, 7, 13, 15, 18, 23	333-0802
SIP 5, 6, 8, 10, 12, 14, 16, 17, 19, 21	333-0803
SIP 11, 26, 28	333-0805
SIP 25, 27	333-0801
C1	300-5019
C2, 126	300-1082
C9	300-1934
C5, 125	300-1903
C7, 127	300-1220
C8, 6	300-5020
C4, 3, 10	300-5006
C11-17	300-4022
C18-124	300-1900
SW1, 2	325-1503
J1 60 POS SOCKET CONN.	350-0057
J2, 3, 4, 5 26 POS SOCKET CONN.	350-0058
D1, 2	380-1001
XTAL1	321-0019
XTAL2	321-0009

REVISION: SEE SHT 1

WANG PART NO.	ITEM	QTY.	NAME	MATERIAL	DESCRIPTION

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN JB	7/25/77	E ENGR	
CHK		M ENGR	
E. C. CONTROL		MFG ENGR	

MATERIAL

MODEL NO. 2200VS

SEE ENGRG SPECIFICATIONS No.

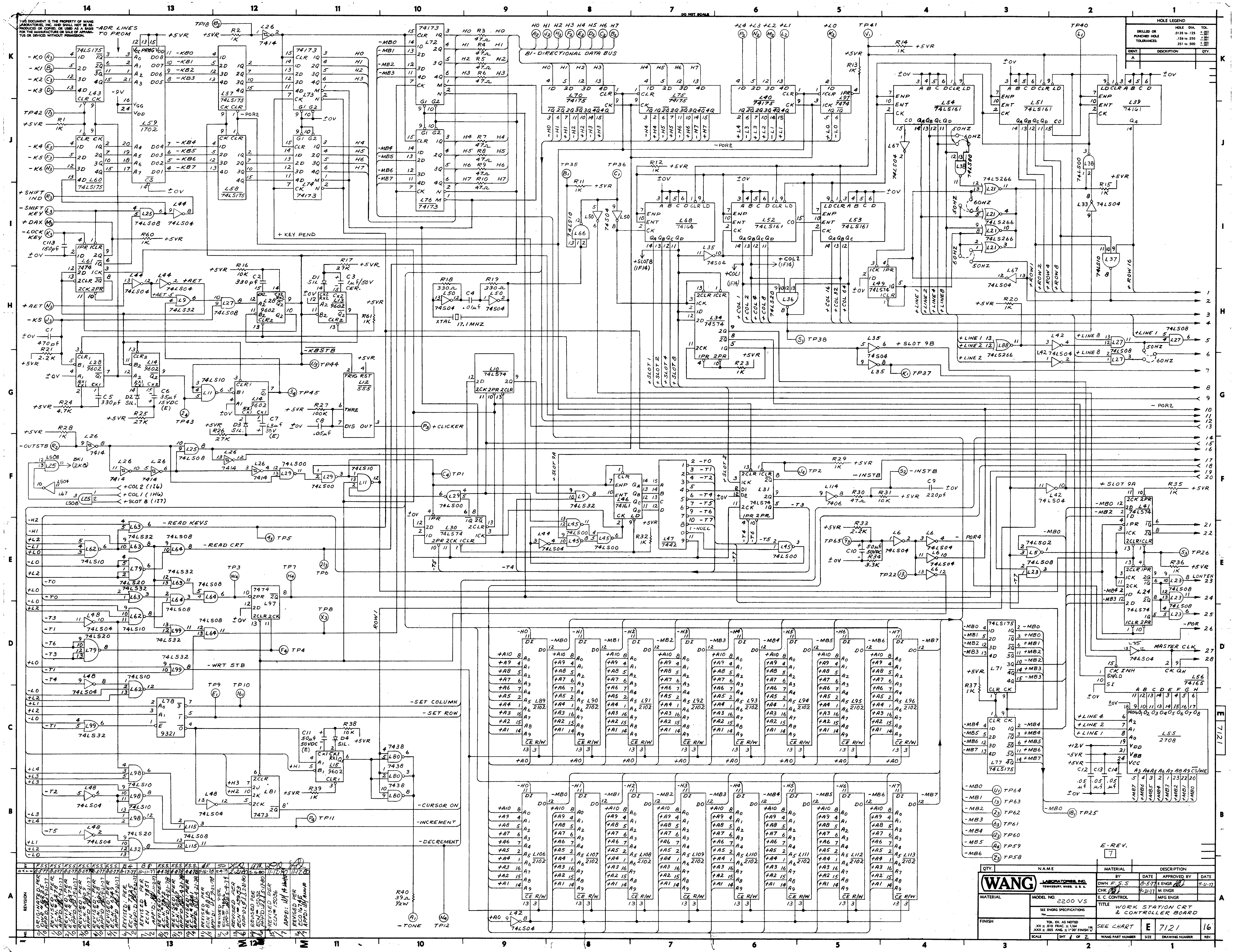
TITLE LARGE DISK DEVICE ADAPTER

FINISH

TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 125

SCALE ~~4/c~~ SHT 4 OF 4

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7114	E	7114	21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ADR LINES TO PROM
BI-DIRECTIONAL DATA BUS
HOLE LEGEND
E-REV. 7
WANG LABORATORIES, INC. TEWKSBURY, MASS. U. S. A.
DWN F.S.S 8-5-77
CHK 9-21-77
E ENGR 9-21-77
M ENGR
MFG ENGR
E. C. CONTROL
MODEL NO. 2200 VS
SEE ENGRG SPECIFICATIONS No.
TITLE WORK STATION CRT & CONTROLLER BOARD
TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH
SCALE
SHT 1 OF 2
SEE CHART
WANG PART NUMBER
SIZE E
DRAWING NUMBER 7121
REV. 16

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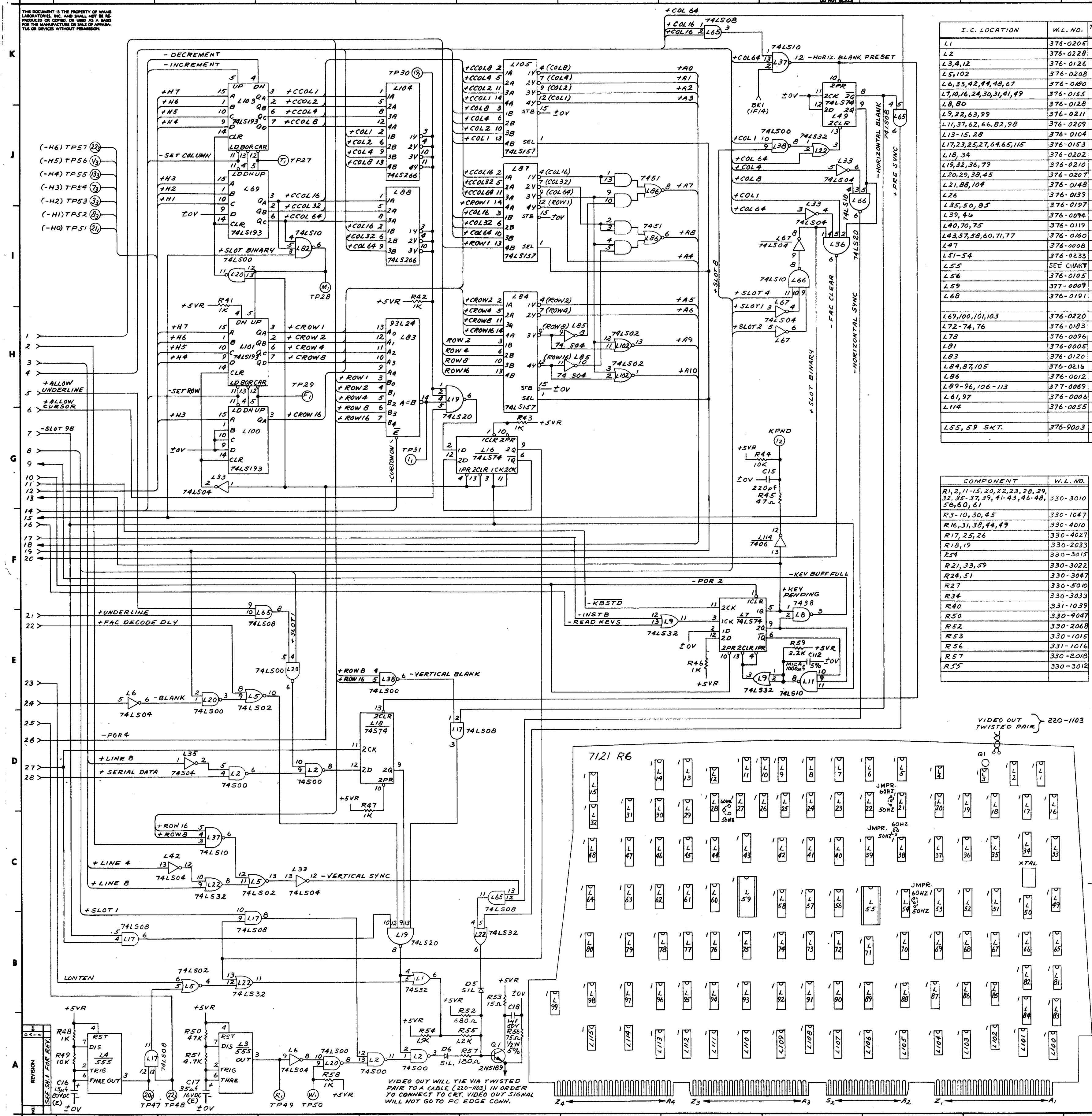


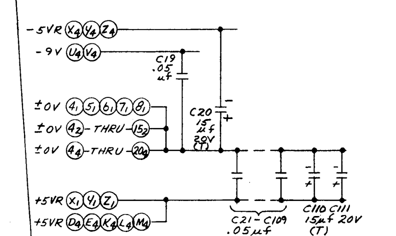
I.C. LOCATION	W.L. NO.	TERM. FOR ±0V	TERM. FOR VCC +5VR
L1	376-0205	7	14
L2	376-0228	7	14
L3,4,12	376-0126	1	8
L5,102	376-0208	7	14
L6,33,42,44,48,67	376-0180	7	14
L7,10,16,24,30,31,41,49	376-0155	7	14
L8,80	376-0128	7	14
L9,22,63,99	376-0211	7	14
L11,37,62,66,82,98	376-0209	7	14
L13-15,28	376-0104	8	16
L17,23,25,27,64,65,115	376-0153	7	14
L18,34	376-0202	7	14
L19,32,36,79	376-0210	7	14
L20,29,38,45	376-0207	7	14
L21,88,104	376-0148	7	14
L26	376-0139	7	14
L35,50,85	376-0197	7	14
L39,46	376-0094	8	16
L40,70,75	376-0119	8	16
L43,57,58,60,71,77	376-0160	8	16
L47	376-0008	8	16
L51-54	376-0233	8	16
L55	SEE CHART	12	24
L56	376-0105	8	16
L59	377-0009		12
L68	376-0191	8	16
L69,100,101,103	376-0220	8	16
L72-74,76	376-0183	8	16
L78	376-0096	8	16
L81	376-0005	11	4
L83	376-0120	8	16
L84,87,105	376-0216	8	16
L86	376-0012	7	14
L89-96,106-113	377-0069	9	10
L61,97	376-0006	7	14
L114	376-0055	7	14
L55,59 SKT.	376-9003		

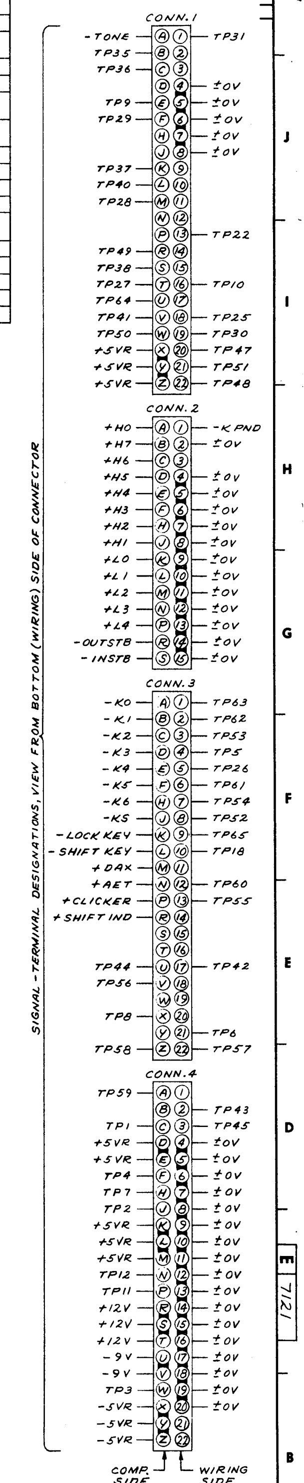
TYPE	I.C. LOCATION	SPARES
74S32	L1	3
74LS04	L33 L44 L48 L42	1 2 1 1
74LS74	L10	1
7438	L8 L80	3 1
74LS32	L9	1
74LS10	L82	2
9602	L13 L15	1 1
74LS08	L115	2
74S04	L85	4
74S74	L18	1
74LS20	L32	1
74LS00	L29	1
74S04	L35 L50	1 2
74LS32	L99	1
9321	L78	1
7473	L81	1
7406	L114	4
74LS02	L102	2

COMPONENT	W.L. NO.
R1,2,11-15,20,22,23,28,29, 32,35-37,39,41-43,46-48, 58,60,61	330-3010
R3-10,30,45	330-1047
R16,31,38,44,49	330-4010
R17,25,26	330-4027
R18,19	330-2033
R54	330-3015
R21,33,59	330-3022
R24,51	330-3047
R27	330-5010
R34	330-3033
R40	331-1039
R50	330-4047
R52	330-2068
R53	330-1015
R56	331-1016
R57	330-2018
R55	330-3012

COMPONENT	W.L. NO.
C1	300-1047
C2,5	300-1330
C3,18	300-1931
C4	300-1903
C6,17	300-3009
C16	300-4022
C112	300-5006
C8,12-14,19,21-109	300-1900
C9,15	300-1220
C10,11	300-3010
C20,110,111	300-4022
C113	300-1150
D1-6	380-1001
XTAL	321-0018
J1	220-1103
Q1	375-1021
Q1 PAD	375-9001
CT	300-4038

210 = 209 + 378 OR 377		
210	209	L55
2246P 7121-B	7121	378-2518
2246P 7121-1B	7121	378-0530R1





HOLE LEGEND

WANG PART NO.	ITEM	QTY.
NAME	MATERIAL	DESCRIPTION

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN F.S.S.	8-6-77	E ENGR	
CHK		M ENGR	
E. C. CONTROL		MFG ENGR	

MODEL NO. 2200 VS

SEE ENGRG SPECIFICATIONS No.

TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 125

SCALE SHT 2 OF 2

TITLE WORK STATION CRT & CONTROLLER BOARD

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	E	7121	16

HOLE LEGEND		
	HOLE DIA.	TOL.
DRILLED OR PUNCHED HOLE TOLERANCES:	.0135 to .125	+.003 −.001
	.126 to .250	+.004 −.001
	.251 to .500	+.005 −.001

IDENT.	DESCRIPTION	QTY.
A		

POWER		
LOCATION	PIN NO 12	PIN No 3
L13, 14, 15	−.7V	+24V
L16, 17, 18	±0V	+24V
L19	−5V	+3V

COMPONENT	W.L. PART No
D1-8, 10, 11, 15, 24-26, 28, 30	380-0001
D9, 13, 14	380-2048
D12	380-2111
D19, 21-23, 27, 29, 35, 36	380-1001
D16, 17, 33, 34	380-3008
D18	380-2113
D20	380-2129
D31, 32	380-4000
F1	~~360-1031~~ SB
DS1	370-0026
J1, 2, 3	654-1177
J4	376-9024

LOCATION	W.L. PART NO	PIN NO ±0V	PIN NO. +5V
L1-8, 10, 11, 12	376-0066	5	
L9, 22	376-0134	9	
L13-19	376-0240	—	—
L20	376-0035	7	14
L21	376-0139	7	14

I.C. TYPE	LOCATION	SPARE
7406	L20	2
7414	L21	3
LM339	L19	2
	L15	1

COMPONENT	W.L. PART NO.
R1-8, 10, 12, 14, 16, 18, 20, 22, 95	330-3022
R9	334-0033
R11, 13, 15, 17, 19, 21, 23, 25, 73 79, 87, 96, 98	330-5012
R26-33, 102, 107, 108	330-3033
R82	330-2047
R42-49, 109, 111, 113, 115, 118	336-1001
R50-57, 123, 114, 24, 97	330-3023
R58, 61, 62, 100, 101	330-2010
R59, 66, 67	330-3047
R90	330-3012
R64, 85, 78, 86	334-0032
R63	334-0018
R65	330-3027
R68	332-2068
R69	331-1047
R70, 80, 125, 126	330-5010
R71, 83, 88, 93, 72	330-3015
R89, 99, 121, 74	330-3010
R75, 109	330-4010
R76, 77	332-3010
R81	330-2068
R84, 94	330-4033
R91, 130	330-2022
R103	330-1047
R105, 119	330-3018
R110, 112, 127	330-3028
R116	330-4019
R128, 129	331-2010
R92, 106	333-0093
C1-8, 31, 34, 37, 38, 39, 51, 52	300-1900
C9-16, 40, 43, 44, 50	300-4022
C17-24, 47, 48	300-1915
C25, 28, 29, 30, 33, 49	300-1903
C26	300-3009
C27	300-4045
C32	300-2147
C35	300-3054
C36	300-2210
C41, 46	300-4032
C42	300-1022
C45	300-1906
R60, 124	332-3012
Q1-7, 10, 11	375-1052
Q8	375-1042
Q9, 12	375-1053
Q13	375-1001
Q14	375-1026
Q15, 16	375-1017
R117	330-1027
TRANSIPAD LARGE	375-9001
TRANSIPAD SMALL	375-9004
R34-41	330-2048
R120, R122	330-3016

E-REV

8

E 7209

NO.	DATE	BY	REVISION
0/0	9-29-77		ORG. PER DWR # E393 APP'D: 11-16-77
1/1	10-11-77	BA	REVISED PER ECN # 7527 APP'D: 11-16-77
2/1	10/24/77	EBA	REVISED PER ECN # 7590 APP'D: 11-16-77
3/1	12-1-77	BA	REVISED PER ECN # 7818 APP'D: 12-13-78
4/1	2-16-78	BK	REVISED PER ECN # 7935 APP'D: 2-16-78
5/2	2-1-78	BK	REVISED PER ECN # 8147 APP'D: 2-18-78
6/3	2-16-78	BK	REVUISED PER ECN # 8215 APP'D: 2-18-78
7/3	6-21-78	JB	REVISED PER ECN # 8898 APP'D: 7-24-78
8/4	6-21-78	JB	REVISED PER ECN # 9017 APP'D: 7-24-78
9/5	11-3-78	L.L.	REVISED PER ECN # 9517 APP'D: 12-30-78
10/6	11-3-78	L.L.	REVISED PER ECN # 9890 APP'D: 12-30-78
11/6	2-20-79	LL	REVISED PER ECN # 10102 APP'D: 3-15-79
12/6	5-16-79	RHM	REVISED PER ECN # 11465 APP'D 5/20/79
13/7	6-26-79	SDG	REVISED PER ECN # 11730 APP'D: 6-26-79
14/8	2/14/81	SOB	REVISED PER ECO # 17791 APP'D: 2/18/81

WANG PART NO.	ITEM	QTY.	NAME	MATERIAL	DESCRIPTION

Qty. Per Unit	FIRST USED ON	ASSY USED ON

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN		9-29-77	E ENGR	11-16-77
CHK			M ENGR	
E. C. CONTROL			MFG ENGR	

MATERIAL

MODEL NO. 2200VS

SEE ENGRG SPECIFICATIONS No.

FINISH

TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 125√

SCALE | SHT 1 OF 1

TITLE PS REGULATOR WITH CURRENT FEED BACK

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7209	E	7209	14

WANG PART NO. | ITEM | QTY. | NAME | MATERIAL | DESCRIPTION

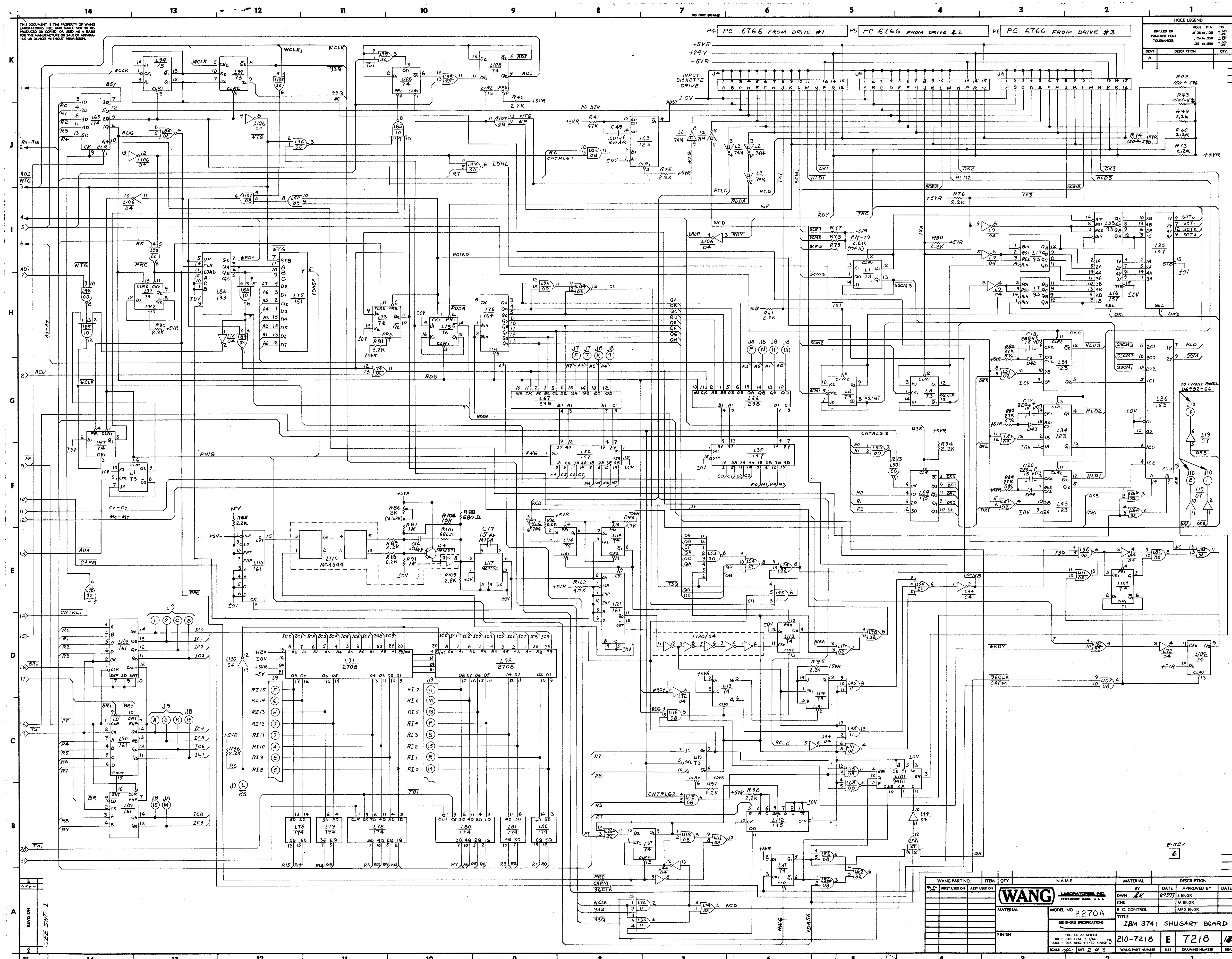
WANG LABORATORIES, INC.
TEWKSBURY, MASS. U.S.A.

MATERIAL
FINISH
MODEL NO. 2270A
SEE ENGRG SPECIFICATIONS No.
TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 125
SCALE ~~1/1~~ SHT 1 OF 3

DWN GK 6-23-77
E ENGR 10-19-77
CHK
M ENGR
E. C. CONTROL
MFG ENGR

TITLE IBM 3741 SHUGART BOARD

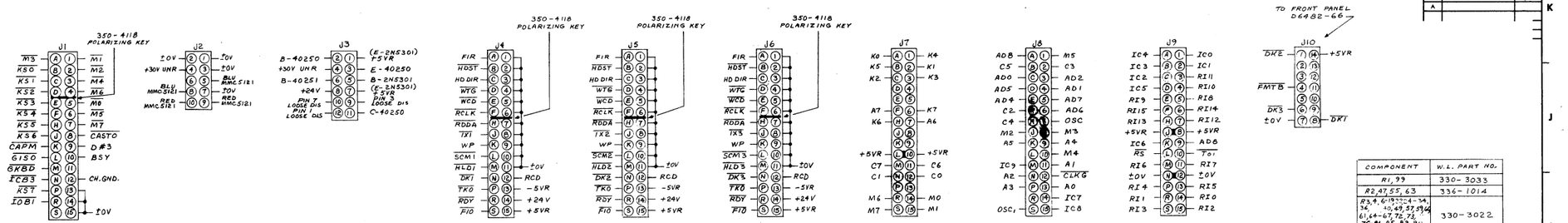
209-7218 (WANG PART NUMBER)
E (SIZE)
7218 (DRAWING NUMBER)
~~1~~4 (REV.)

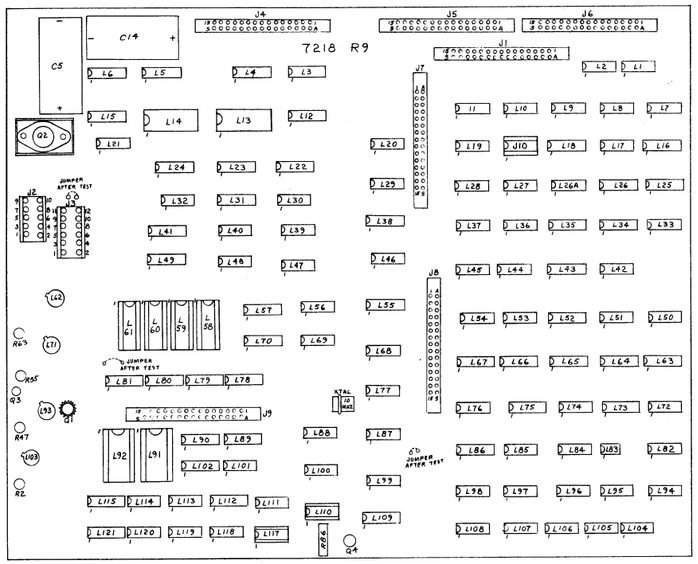

THIS DOCUMENT IS THE PROPERTY OF WANG LABORATORIES, INC. AND SHALL NOT BE REPRODUCED OR COPIED, OR USED AS A BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION.
P4 PC 6766 FROM DRIVE #1
P5 PC 6766 FROM DRIVE #2
P6 PC 6766 FROM DRIVE #3
INPUT DISKETTE DRIVE
HOLE LEGEND
TO FRONT PANEL 06482-66
E-REV 6
REVISION SEE SHT. 1
WANG LABORATORIES, INC.
MODEL NO 2270A
TITLE IBM 3741 SHUGART BOARD
210-7218
E
7218
SHT 2 OF 3

DO NOT SCALE

HOLE LEGEND		
DRILLED OR PUNCHED HOLE TOLERANCES:	HOLE DIA. .0135 to .125 / .128 to .250 / .251 to .500	TOL. ±.002 / ±.003 / ±.004

IDENT.	DESCRIPTION	QTY.
A		



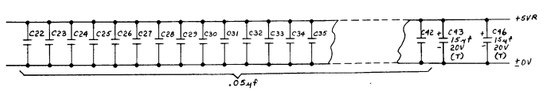


LOCATION	W.L. PART NO.	ITEM NO. ±0V	ITEM NO. +5VR
L1,8,94,119	376-0005	11	4
L9-11,20,30,44,72,87,106,120	376-0010	7	14
L3,66,67,6	376-0138	8	16
L4,5,12,15,26	376-0048	8	16
L7,17,33	376-0011	10	5
L13,14	376-0099	12	24
L16,22-25,35,52	376-0082	8	16
L18,65,78,79,80,81	376-0098	8	16
L19	376-0056	7	14
L21	376-0025	7	14
L27,28	376-0028	7	14
L29,42,48,50,68,96	376-0002	7	14
L31,38	376-0096	8	16
L32	376-0012	7	14
L34,43,63	376-0080	8	16
L36,45	376-0194	7	14
L37,97,104,108,113,114	376-0006	7	14
L39,56,62,99,107,118	376-0081	7	14
L26A,40,69,74,98,100,105	376-0093	7	14
L41,49	376-0049	8	16
L46,51,84,111	376-0016	7	14
L47,85	376-0003	7	14
L53	376-0031	7	14
L54	376-0125	7	14
L55,73,109	376-0007	13	5
L57,70,86	376-0053	8	16
L58,59,60,61	377-0308	8	24
L62,71,93,103	376-0066	—	—
L64	376-0119	8	16
L75	376-0047	8	16
L77	376-0073	10	5
L76,88	376-0102	7	14
L83	376-0126	1	8
L89,90,102,115,121	376-0094	8	16
L91,92	SEE CHART	12	24
L101	376-0040	7	14
L110	SEE CHART	7	14
L112	376-0097	8	16
L117	SEE CHART	7	14
L2	376-0189	7	14
L95	376-0180	7	14
L116 NOT USED			

LOCATION	TYPE	SPARES
L19	7407	1
L26A	7432	1
L29	7400	1
L36	7411	1
L48	7400	1
L56	7408	2
L63	74123	1
L72	7404	3
L74	7432	1
L82	7408	1
L95	74LS04	1
L96	7400	1
L107	7408	1
L109	7406	1

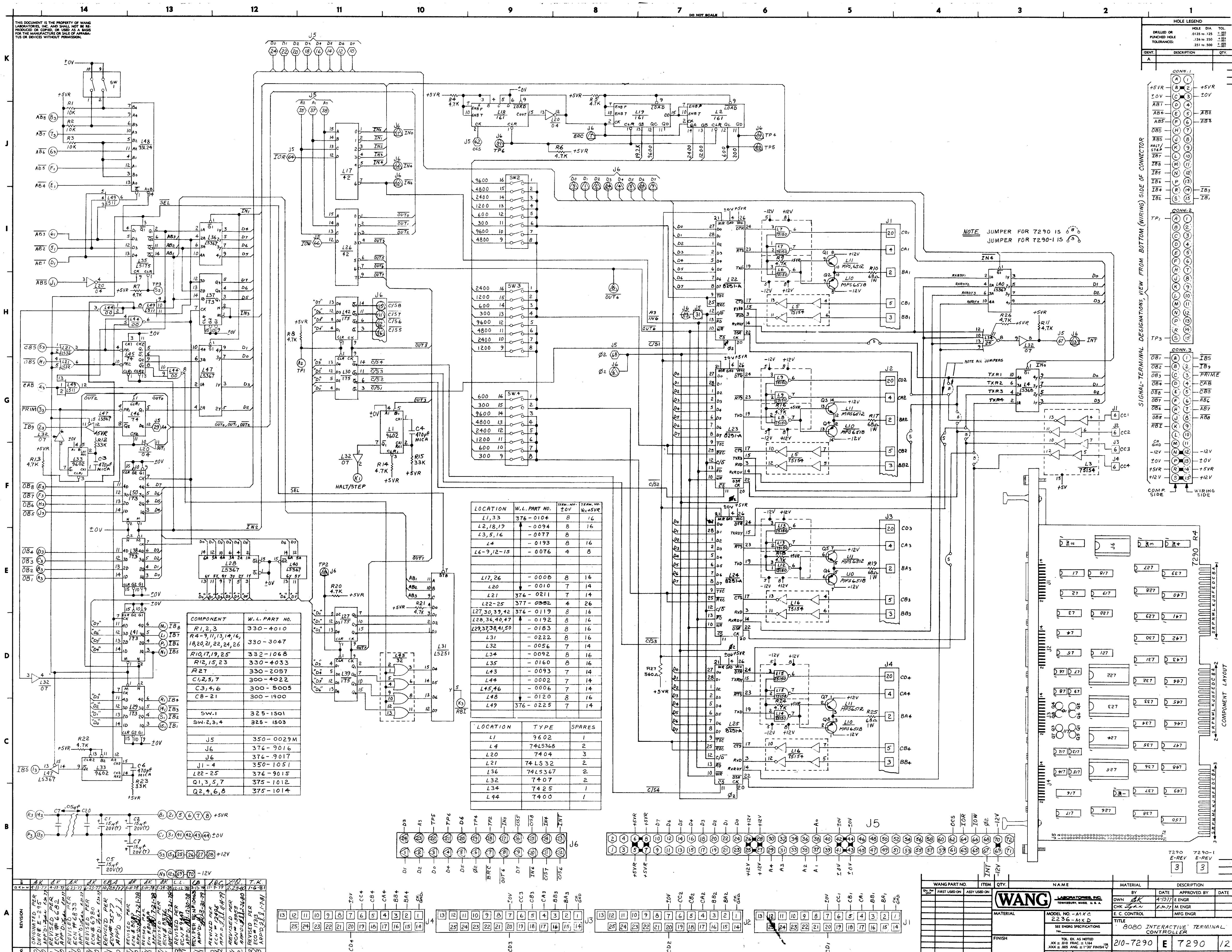
COMPONENT	W.L. PART NO.
R1,99	330-3033
R2,47,55,63	336-1014
R3,4,6-19,22-34, 36, 40,45,57,59,60, 61,64-67,72,73, 75-81 85,89,90, 92,94-98,109-111	330-3022
R5,37,38,105	330-4027
R20	330-5010
R21	330-6016
R23,35, 107	330-2047
R39	330-2037
R41	330-4047
L111,88	330-2068
R44	330-2033
R45,103	330-3082
R46,48,58	330-3027
R50,51	331-0010
R52,53,93,100,102,106	330-3047
R54	330-2056
R56	330-3015
R62,69	330-3018
R68	330-2018
R70,71	330-2022
R86	336-6036
R87,91	330-3010
R108	331-1039
C1	300-1220
C2,49	300-2010
C3,10,16	300-1903
C4,7	300-1907
C5	300-3055
C6,15,43,46,50	300-4022
C8	300-3011
C9,22-42	300-1900
C11,45,47	300-1904
C12	300-1936
C13	300-1010
C14	300-3054
R104	330-4010
C17	300-5020
C18-20	300-4045
C31	300-1106
C44	300-2068
XTAL	321-0008
D1-3,42-44,46	380-1031
D32	380-2091
D33,34	380-3008
D35,36,39,40	380-4000
D37	380-2051
D38,45	380-0001
D41	380-2062
Q1	375-1027
Q2	375-1031
Q3	375-1006
Q4	375-1061
J2	654-1172
J3	654-1188
J10 14 PIN SOCKET	376-9012
24 PIN SOCKET	376-9003
22 PIN SOCKET	376-9010
J1,4-9	350-0011
C48	300-1913
R42,43,74	330-2016
R82-84	330-9028
L116,117	376-9031

VARIATION CHART					
MODEL	210	L110	L117	L91	L92
2270 A	7218-A	376-0263	376-0264	378-2128	378-2129
2270 MVP	7218-B	376-0263	376-0264	378-2138	378-2139
2270 A	7218-C	376-0263	376-0264	378-2256	378-2257



REVISION
SEE SHT. 1

WANG PART NO.	ITEM	QTY.	NAME	MATERIAL	DESCRIPTION
Dash No. / FIRST USED ON / ASSY USED ON			WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.		BY / DATE / APPROVED BY / DATE
					DWN AE 6-23-77 / E ENGR
					CHK / M ENGR
			MATERIAL		E. C. CONTROL / MFG ENGR
			MODEL NO. 2270A		TITLE: IBM 3741 SHUGART BOARD
			SEE ENGRG SPECIFICATIONS		
			FINISH	TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH	210-7218 / E / 7218 / 14
				SCALE NONE SHT 3 OF 3	WANG PART NUMBER / SIZE / DRAWING NUMBER / REV.



COMPONENT	W.L. PART NO.
R1,2,3	330-4010
R4-9,11,13,14,16, 18,20,21,22,24,26	330-3047
R10,17,19,25	332-1068
R12,15,23	330-4033
R27	330-2057
C1,2,5,7	300-4022
C3,4,6	300-5005
C8-21	300-1900
SW.1	325-1501
SW.2,3,4	325-1503
J5	350-0029M
J6	376-9016
J6	376-9017
J1-4	350-1051
L22-25	376-9015
Q1,3,5,7	375-1012
Q2,4,6,8	375-1014

LOCATION	W.L. PART NO.	TERM. NO. ±0V	TERM. NO. Vcc+5VR
L1,33	376-0104	8	16
L2,18,19	-0094	8	16
L3,5,16	-0077	8	
L4	-0193	8	16
L6-9,12-15	-0076	4	8
L17,26	-0008	8	16
L20	-0010	7	14
L21	376-0211	7	14
L22-25	377-0352	4	26
L27,30,39,42	376-0119	8	16
L28,36,40,47	-0192	8	16
L29,37,38,41,50	-0183	8	16
L31	-0222	8	16
L32	-0056	7	14
L34	-0092	8	16
L35	-0160	8	16
L43	-0093	7	14
L44	-0002	7	14
L45,46	-0006	7	14
L48	-0120	8	16
L49	376-0225	7	14

LOCATION	TYPE	SPARES
L1	9602	1
L4	74LS368	2
L20	7404	3
L21	74LS32	2
L36	74LS367	2
L32	7407	2
L34	7425	1
L44	7400	1

WANG PART NO.	ITEM	QTY.	NAME	MATERIAL	DESCRIPTION

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

MODEL NO. -MXC 2236-MXD

SEE ENGRG SPECIFICATIONS No.

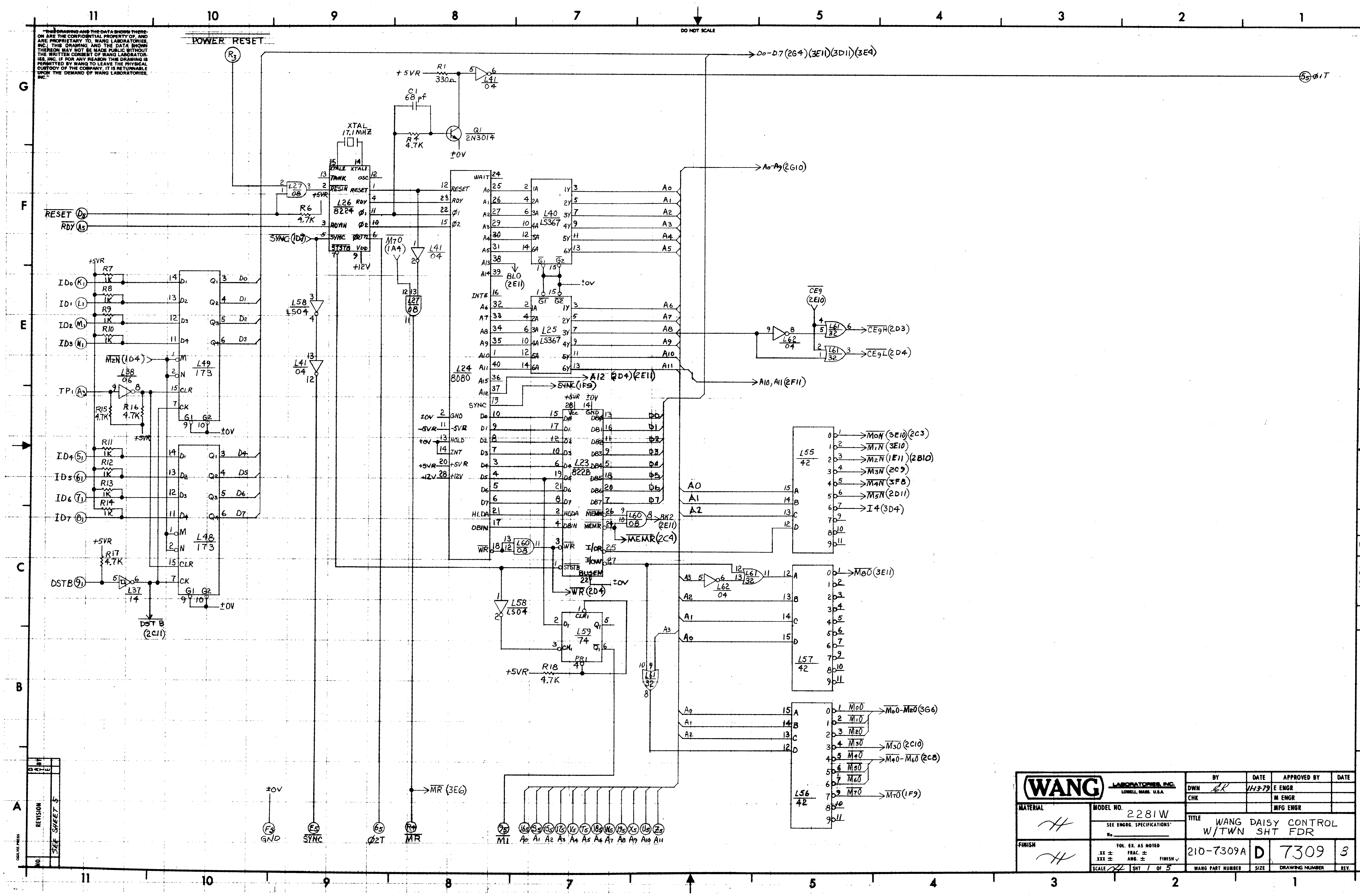
TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 125

SCALE — SHT 1 OF 1

BY	DATE	APPROVED BY	DATE
DWN EK	4-13-77	E ENGR	
CHK Lydia	8-30-77	M ENGR	
E. C. CONTROL		MFG ENGR	

TITLE: 8080 INTERACTIVE TERMINAL CONTROLLER

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7290	E	7290	12



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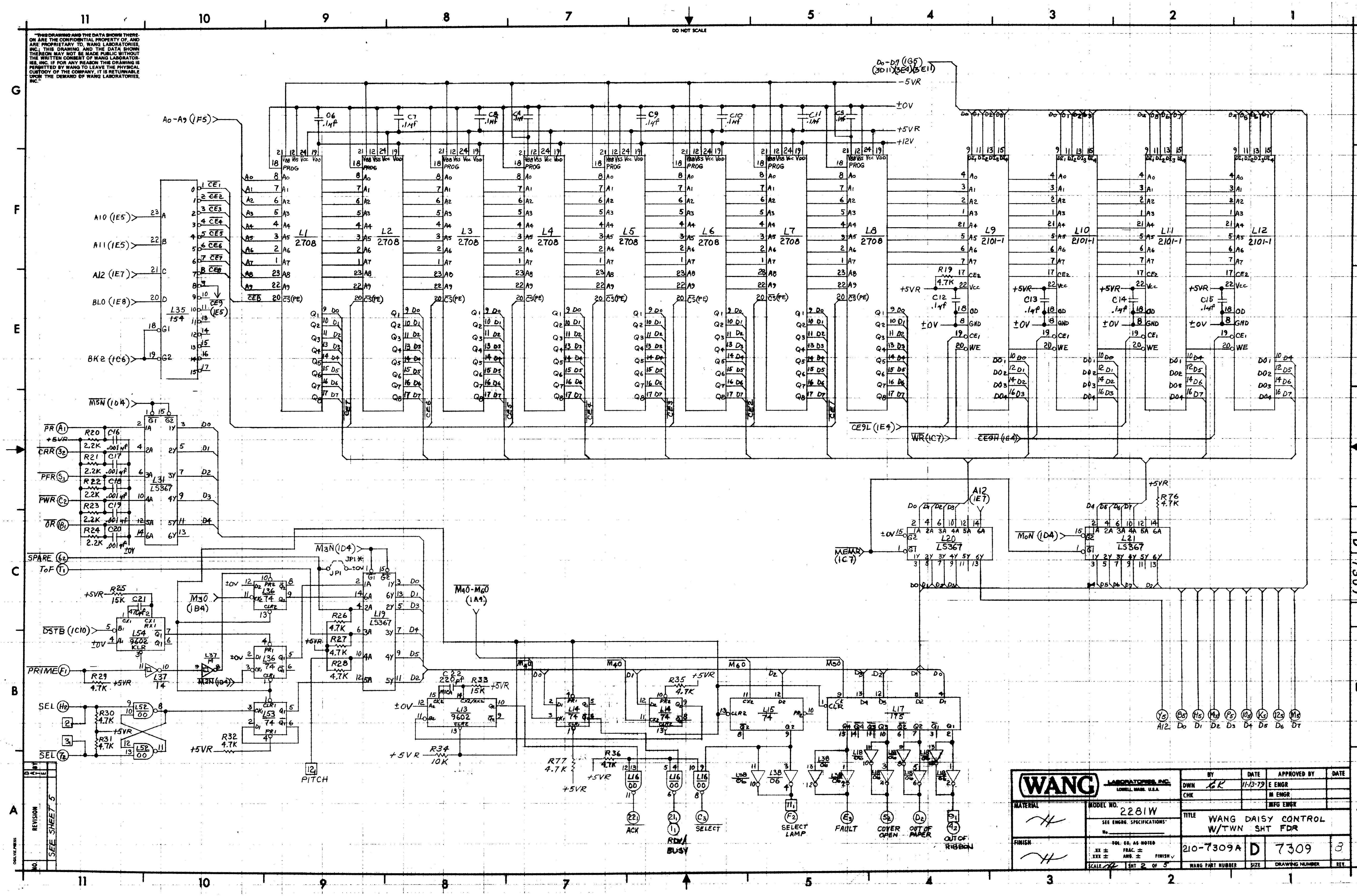
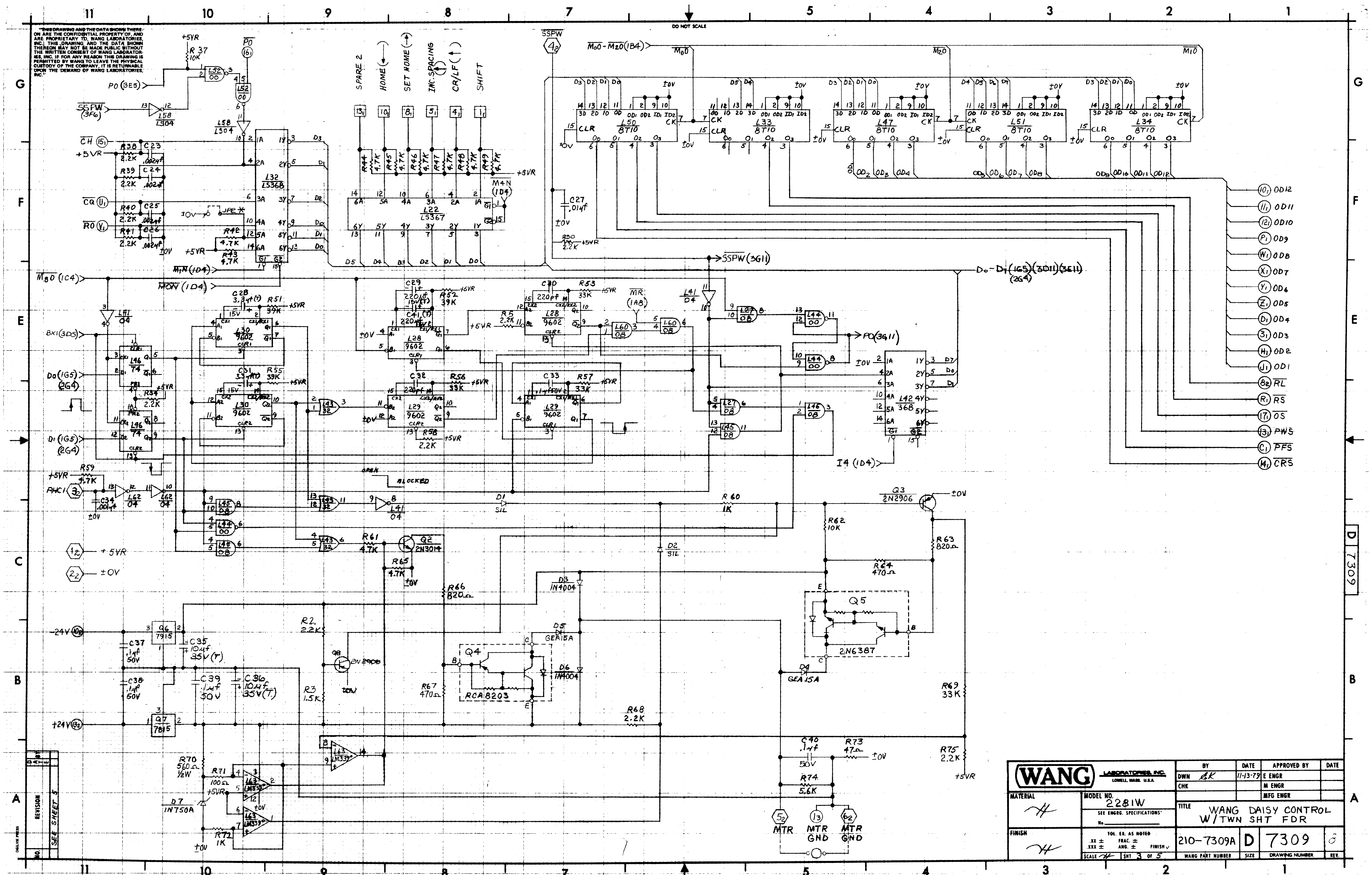
POWER RESET
DO NOT SCALE
D0-D7 (2G4)(3E11)(3D11)(3E4)
+5VR
R1 330Ω
L41 04
φ1T
C1 68pf
Q1 2N3014
R4 4.7K
XTAL 17.1MHZ
L26 8224
L27 08
R6 4.7K
RESET
RDY
SYNC (1D7)
M70 (1A4)
+12V
L24 8080
L40 LS367
L25 LS367
A0-A9 (2G10)
BLO (2E11)
CE9 (2E10)
L62 04
L61 32
CE9H (2D3)
CE9L (2D4)
A12 (2D4)(2E11)
SYNC (1F5)
A10, A11 (2F11)
L23 8228
L60 08
BK2 (2E11)
MEMR (2C4)
WR (2D4)
BUSEN
L59 74
R18 4.7K
L58 LS04
L49 173
L48 173
L38 06
R15 4.7K
R16 4.7K
R17 4.7K
L37 14
DSTB (2C11)
M2N (1D4)
ID0 ID1 ID2 ID3 ID4 ID5 ID6 ID7
TP1
DSTB
R7 R8 R9 R10 R11 R12 R13 R14 1K
L55 42
M0N (3E10)(2C3)
M1N (3E10)
M2N (1E11)(2B10)
M3N (2C9)
M4N (3F8)
M5N (2D11)
I4 (3D4)
L57 42
M80 (3E11)
L56 42
M00-ME0 (3G6)
M30 (2C10)
M40-M60 (2C8)
M70 (1F9)
MR (3E6)
GND
SYNC
φ2T
MR
M1
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11
REVISION
SEE SHEET 5
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MATERIAL
FINISH
MODEL NO. 2281W
SEE ENGRG. SPECIFICATIONS
TOL. EX. AS NOTED
DWN
CHK
1-13-79
E ENGR
M ENGR
MFG ENGR
APPROVED BY
TITLE WANG DAISY CONTROL W/TWN SHT FDR
210-7309A
D
7309
3
WANG PART NUMBER
SIZE
DRAWING NUMBER
REV.
SHT 1 OF 5



WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

DWN	GK	11-13-79
MODEL NO.	2281W	
TITLE	WANG DAISY CONTROL W/TWN SHT FDR	
WANG PART NUMBER	210-7309A	
SIZE	D	
DRAWING NUMBER	7309	
REV.	3	
SCALE	—	SHT 2 OF 5

REVISION: SEE SHEET 5



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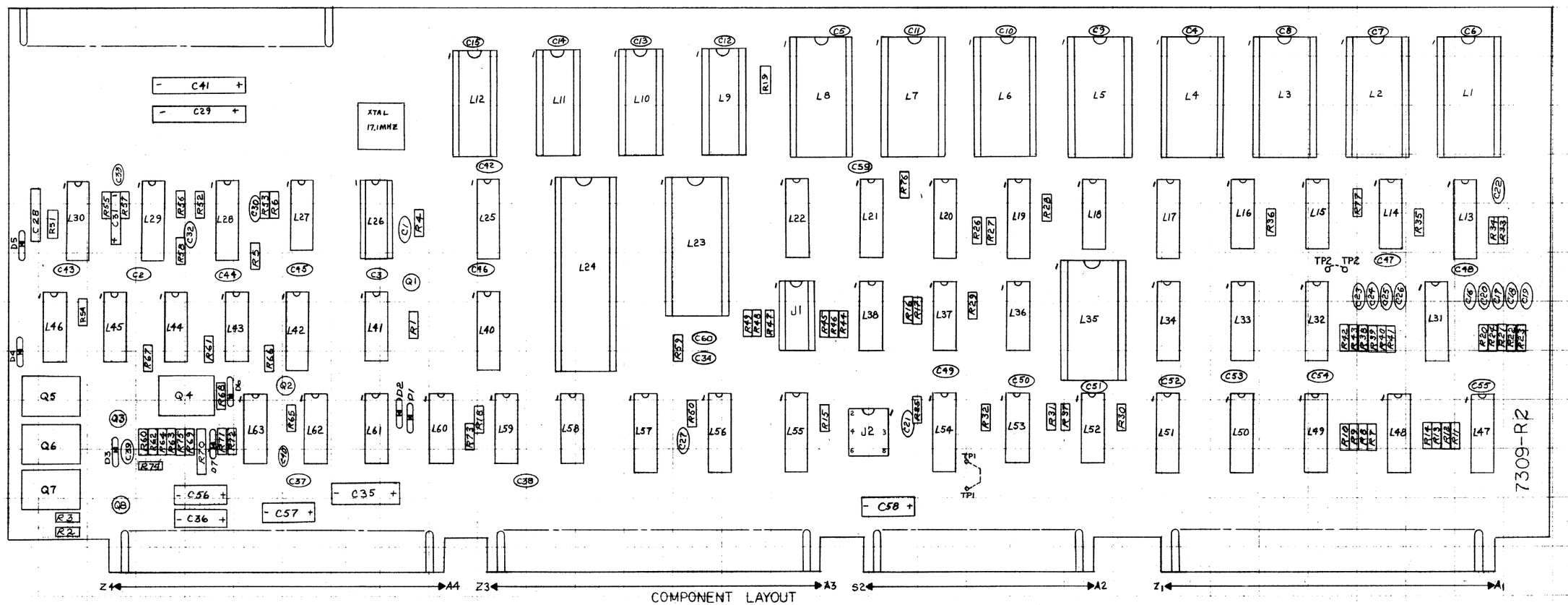
DO NOT SCALE
SPARE 2
HOME (←)
SET HOME (↑)
INC. SPACING (↓)
CR/LF (↑)
SHIFT
L32 LS368
L22 LS367
L50 8T10
L33 8T10
L47 8T10
L51 8T10
L34 8T10
L30 9602
L28 9602
L29 9602
L42 368
L46 74
Q2 2N3014
Q3 2N2906
Q4 RCA8203
Q5 2N6387
Q6 7915
Q7 7815
L43 LM339
OPEN
BLOCKED
-24V
+24V
MTR
MTR GND
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MODEL NO. 2281W
DWN 11-13-79
TITLE WANG DAISY CONTROL W/TWN SHT FDR
210-7309A
D
7309
SHT 3 OF 5

DO NOT SCALE



COMPONENT LAYOUT

REVISION	BY	DATE
SEE SHEET 5		

	BY	DATE	APPROVED BY	DATE
DWN	GR	11-13-79	E ENGR	
CHK			M ENGR	
			MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL —

FINISH —

MODEL NO. 2281W

SEE ENGRG. SPECIFICATIONS

No.

TOL. EX. AS NOTED
XX ± ANGL. ±
XXX ± MICRO FINISH √

SCALE — SHT 4 OF 5

TITLE WANG DAISY CONTROL W/TWN SHT FDR

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7309A	D	7309	B

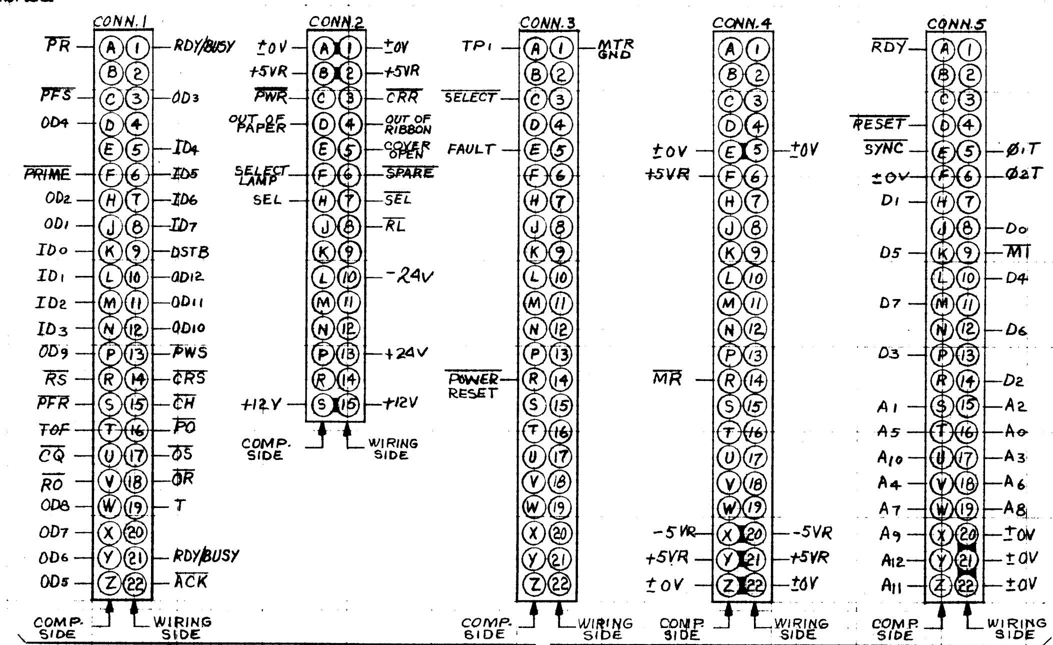
DO NOT SCALE

COMPONENT	W.L. PART NO.	TYPE
R1	330-2033	330Ω ¼W 10%
R2,5,20-24,38-41, 58,68,75	330-3022	2.2K ¼W 10%
R3	330-3015	1.5K ¼W 10%
R4,R6,15-19,26-32, 35,36,42-49,59,61, 65,76,77	330-3047	4.7K ¼W 10%
R7-14,60,72	330-3010	1K ¼W 10%
R25,33	330-4015	15K ¼W 10%
R34,37,62	330-4010	10K ¼W 10%
R51,52,55	330-4039	39K ¼W 10%
R53,56,57,69	330-4033	33K ¼W 10%
R63,66	330-2082	820Ω ¼W 10%
R64,67	330-2047	470Ω ¼W 10%
R70	331-2056	560Ω ½W 10%
R71	330-2010	100Ω ¼W 10%
R73	330-1047	47Ω ¼W 10%
R74	330-3056	56K ¼W 10%
C1	300-1068	68pf 10% 500V
C2,3,27,42-47,49, 50,52-55,59,60	300-1903	.01uf 25V 10%
C4-15,33,37-40,48,51	300-1900	.1uf 50V 20%
C16-20,34	300-1906	.001uf 20% 500V
C21	300-1470	470pf 10% 500V
C22,30,32	300-1220	220pf 10% 500V
C23-26	300-1913	.002uf 25V 20%
C28,31	300-4016	3.3uf 10% 15V(T)
C29,41	300-1220	220uf 15V(T)
C35,36	300-4032	10uf 35V (T)
C56-58	300-4022	15uf 10% 20V(T)
Q1,2	375-0017	2N3014
Q3	375-1017	2N2906
Q4	375-1053	RCA8203
Q5	375-1052	2N6387
Q6	374-0005	7915
Q7	374-0008	7815
D1,2	380-1001	SIL
D3,6	380-4000	IN4004
D4,5	380-3008	GEA15A
D7	380-2047	IN705A(ZENER)
L1-8,35	376-9003	24PIN BURNDY SKT
L9-12	376-9010	22PIN BURNDY SKT
L26	376-9008	16 PIN TEKNA SKT
L24	376-9011	40PIN BURNDY SKT
L23	376-9015	28PIN BURNDY SKT
J1	376-9012	14PIN CAMBION SKT
J2	654-1186	6POS PIN HEADER
XTAL	321-0018	17.1MHZ CRYSTAL

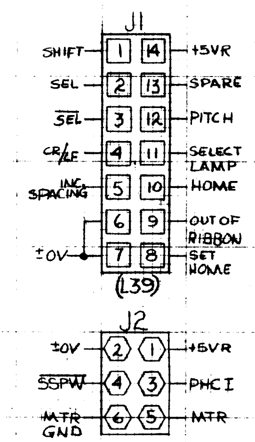
TYPE	LOCATION	SPARES
7474	L15	1
7400	L16	1
7414	L37	3
7406	L38	1
74368	L42	1
7432	L43	1
7400	L44	1
7474	L53	1
9602	L13, L54	1
74LS04	L58	2
7474	L59	1
7404	L62	2
LM339	L63	1

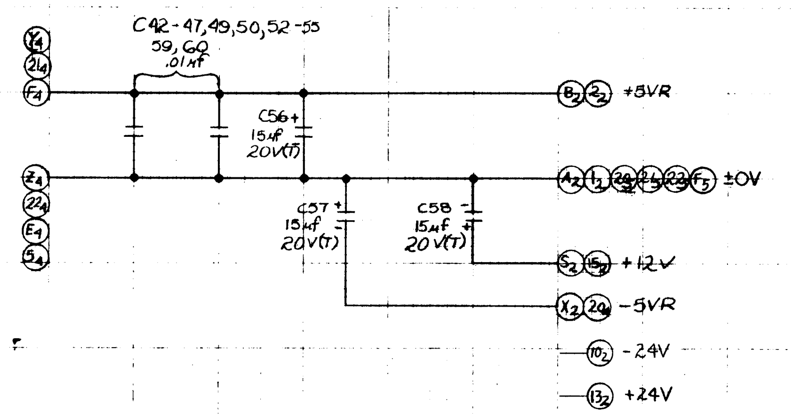
* JP1 – a) WITH JUMPER DISTINGUISH SPECIAL SIZE OF PAPER FOR EUROPE.
b) WITHOUT JUMPER FOR NORMAL 81W FAMILY.

* JP2 – a) WITH JUMPER 81W.
b) WITHOUT JUMPER 81WWP.



SIGNAL-TERMINAL DESIGNATIONS, VIEW FROM BOTTOM (WIRING) SIDE OF CONNECTOR





LOCATION	W.L. PART NO	TYPE
L1-8	SEE CHART	2708
L9-12	SEE CHART	2101-1
L13,28,29,30,54	376-0104	9602
L14,15,36,46, 53,59	376-0006	7474
L16,44,52	376-0002	7400
L17	376-0119	74175
L18,38	376-0055	7406
L19,20,21,22, 25,31,40	376-0192	74LS367
L23	SEE CHART	8228
L24	SEE CHART	8080
L26	SEE CHART	8224
L27,45,60	376-0081	7408
L32	376-0193	74LS368
L33,34,47,50,51	376-0137	8T10
L35	SEE CHART	74154
L37	376-0139	7414
L41,62	376-0010	7404
L42	376-0179	74368
L43,61	376-0093	7432
L48,49	376-0183	74173
L55,56,57	376-0008	7442
L58	376-0180	74LS04
L63	376-0240	LM399

210 = 209 + 377 OR 378

209	210	L1	L3	L4	L5	L6	L7	L8	L9-12	L23	L24	L26	L35			
7309	7309-A	378-2559 R4	378-2590 R4	378-2558 R4	378-2557 R4	378-2556 R4	378-2555 R4	378-2554 R4	377-0308	377-0338	377-0269	377-0337	376-0090			

MNEMONIC	COORDINATE
A0-A11	1A7
A12	2B2
ACK	2A6
CH	3G11
COVER OPEN	2A4
CQ	3F11
CR/LF	3G8
CRR	2D11
CRS	3D1
D0-D7	2B2
DSTB	1C11
FAULT	2A5
HOME	3G9
ID0-ID7	1E11
INC. SPACING	3G8
MI	1A8
MR	1A8
MTR	3A5
MTR GND	3A5
OD1-OD12	3F1
OR	2C11
OS	3D1
OUT OF PAPER	2A4
OUT OF RIBBON	2A4
PFR	2D11
PFS	3D1
PHCI	3D11
PITCH	2A9
PO	3G10
PR	2D11
PRIME	2B11
PWR	2D11
PWS	3D1
POWER RESET	1G10
RDY	1F11
RDY/BUSY	2A6
RESET	1F11
RL	3D1
RO	3F11
RS	3D1
SEL	2B11
SEL	2A11
SELECT	2A6
SELECT LAMP	2A5
SET HOME	3G8
SHIFT	3G8
SPARE	2C11
SPARE2	3G9
SSPW	3G7
SYNC	1A9
TOF	2C11
TP1	1D11
Ø1T	1G1
Ø2T	1A9

E-REV 2

REV	REVISION
0	ORIGINATED PER DWR # E754
1	REVISED PER ECN # 16035
2	REVISED PER ECN # 16035
3	REVISED PER ECN # 16701
4	REVISED PER ECN # 16751
5	REVISED PER ECO #
6	REVISED PER ECO #
7	REVISED PER ECO #
8	REVISED PER ECO #

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	SK	11-13-79	E ENGR	4/28/80
CHK	R L LeBlanc	4/2/80	M ENGR	
			MFG ENGR	

MATERIAL: —
MODEL NO. 2281W
SEE ENGRG. SPECIFICATIONS No.
FINISH: —
TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH √
SCALE — SHT 5 OF 5

TITLE: WANG DAISY CONTROL W/TWN SHT FDR

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7309A	D	7309	3

DO NOT SCALE

PRINTER PRIME

BK1 (2E2) BK2 (2G2)

SWO SWI SW2 SW SPEED CLEAR FOR FFM LFM

SWO (2F2) SWO-2 (2D11)

DI0 DI1 DI2 DI3 DI4 DI5 DI6 DI7

IN1-L(1C7) IN2-L (1C7)

PO CO

POP (1E11)

PRESET PRESET (2B11)

PD0-PD7 (2E6)

LATCHEN

RD MREQ BK3 (2F3)

RD (2C11)(2D7) IORQ (2C11),(2D7) RFSH WR RD IORQ MREQ MI (2C11),(2D7)

SEL-L (2B11) CTC SEL (2D7)

FWD-L (2G2)

APLEN (2C8) DSTB F/F1 (2B7)

OUT4-L OUT5-L OUT3-L OUT2-L OUT7-L

EVEN SOLEN ODD SOLEN

FMOVLT

NORM/FAST (2G6) REV-L (2E2) FON-L (2G6)

JUMPER HAND WIRED PER ECO 17853

A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 RFSH WR RD MREQ

USART OUT7-L Y0 X0 FAULT SL P0 BUSY ACKLG

CP CLK (2F10) ØCLK (2E9)

REVISION	BY	DATE	APPROVED BY	DATE
SEE SH. 4 FOR REV.	DWN F.S.S.	8-17-78	E ENGR	
	CHK		M ENGR	
			MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL

MODEL NO. 2231W-5/6

SEE ENGRG. SPECIFICATIONS No.

FINISH

TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH √

SCALE SHT 1 OF 4

TITLE 12 SOLENOID HEAD CPU BOARD

SEE CHART | D | 7332 | 15

WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.

D 7332

DO NOT SCALE

NORM/FAST (1A6) · FON-L (1A6) · +5VR · ±0V · -12V · +12V

MPA1 (14) · MPA2 (15) · MPB2 (5) · MPB1 (1) · MO (13)

FIRE HE (2D11) · TP6 · FIRE HO (2C11) · INDEX (2C11) · TP5 · TP7

BK2 (1H10) · (1C5) FWD-L · BK3 (1E8) · SWO (1F9) · REVL (1A6) · BK1 (1G10)

CP CLK (1A10) · ØCLK (1A11) · PDO-PD7 (1F3)

DT1 (M3) · DT2 (11) · DT3 (N3) · DT4 (12) · DT5 (P3) · DT6 (13) · DT7 (R3) · DT8 (14)

FIRE HE (2G7) · SWO-2 (1F9) · DSTB F/F1 (2B7) · INDEX (2F9) · B5 (2A9) · TCINT (P1) · FIRE HO (2F7) · RD (1E9) · IORQ (1D9) · MI (1D9) · IEO (2A6) · AO (1B8) · A1 (1B8) · SEL-L (1C7)

APLEN (1E5) · DSTB F/F1 (2D11) · (1D5) · DSTB · RETURN (S3) · PRESET (1G1) · PRESET · B5 (2C11) · BK1 (1G5) · SELT · IN3-L (1C7) · INT (1C11) · IEO (2C11) · BAUD RATE · A1-L1 · A1-L1

+12V (C1) · -12V (3) · ±0V (J) · +5VR (5) · OPEN FOR 928 CLOSE FOR 114

TP1 · TP2 · TP3 · TP4

SEE SH. 4 FOR REV.

	BY	DATE	APPROVED BY	DATE
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.	DWN F.S.S.	8-17-78	E ENGR	
	CHK		M ENGR	
			MFG ENGR	

MATERIAL · MODEL NO. 2231W-5/6 · SEE ENGRG. SPECIFICATIONS No. ____

TITLE: 12 SOLENOID HEAD CPU BOARD

FINISH · TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH √

SCALE · SHT 2 OF 4 · WANG PART NUMBER: SEE CHART · SIZE: D · DRAWING NUMBER: 7332 · REV.: 15

D 7332

DO NOT SCALE

I.C. LOCATION	TYPE	W.L. NO.
L1,37	7406	376-0055
L2	74LS155	376-0158
L3,4	74LS42	376-0212
L5,7,9,10,18,36	74LS244	376-0288
L6	CPU 3880	SEE CHART
L8,13	74LS74	376-0155
L12	PIO 3881	SEE CHART
L13A	7404	376-0010
L14,15	9602	376-0104
L16,L14A	74LS08	376-0153
L17	74LS367	376-0192
L19	7425	376-0092
L20	74LS00	376-0207
L21	7432	376-0093
L22	7410	376-0003
L23	7414	376-0139
L24,25	1458	376-0265
L26	DG200	376-0195
L27	74LS14	376-0322
L28	74LS04	376-0180
L29	74LS73	376-0304
L30	CTC 3882	SEE CHART
L32,34,35	74LS374	376-0286
L31, L33	74LS173	376-0289
L6, 12 SKT.	40 PIN	376-9011
L30 SKT.	28 PIN	376-9015

LOCATION	TYPE	SPARES
L1	7406	1
L11	SPARE	
L22	7410	1
L23	7414	2
L28	74LS04	2

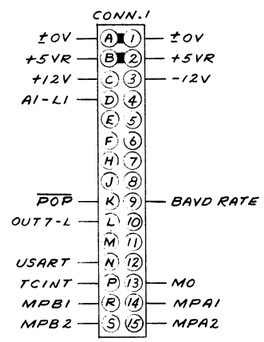
L10 = 209 + 378 OR 377

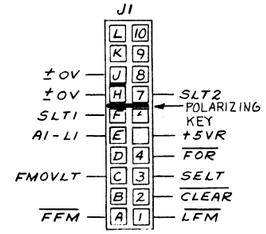
L10	209	L6	L12	L30
7332-A	7332	377-0349	377-0342	377-0393

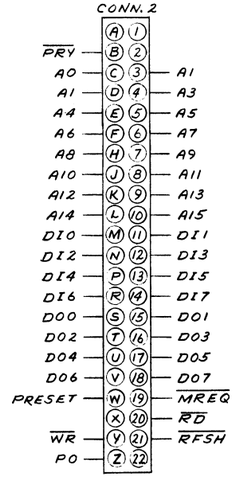
COMPONENT	TYPE	W.L. NO
R1,2,4-6,24,25,29 31,32,34,37,57 62,64,65,70,72,73, 74,75,79,80	4.7K 1/4W 10%	330-3047
R10	1.8K 1/4W 10%	330-3018
R3,19,20	12K 1/4W 10%	330-4012
R7,71,78	470Ω 1/4W 10%	330-2047
R8,9,66,67	220Ω 1/4W 10%	330-2022
R11,63,14	1K 1/4W 10%	330-3010
R12,35,56	330Ω 1/4W 10%	330-2033
R13	10Ω 1/4W 5%	330-1011
R16	5.6K 1/4W 10%	330-3056
R17	560Ω 1/4W 10%	330-2056
R18	22Ω 1/2W 10%	331-1022
RI5	680Ω 1/4W 10%	330-2068
R21	8.2K 1/4W 10%	330-3082
R22	50K. POT	336-1012
R23	18K 1/4W 10%	330-4018
R26,30,36,46	15K 1/4W 10%	330-4015
R27	220K 1/4W 10%	330-5022
R28	150Ω 1/4W 10%	330-2015
R33,51	10K 1/4W 10%	330-4010
R38,50	22K 1/4W 5%	330-4023
R39	10K 1/4W 5%	330-4011
R40,52	47K 1/4W 5%	330-4048
R41,53	75K 1/8W 1%	333-0054
R42	249K 1/8W 1%	333-0062
R43	33K 1/4W 5%	330-4034
R68	22Ω 1/4W 10%	330-1022
R44,45	22.1K 1/8W 1%	333-0018
R47,49	2.2K 1/4W 10%	330-3022
R48,58-61	100Ω 1/4W 10%	330-2010
R69,76,77	10Ω 1/4W 10%	330-1010
R54	180K 1/4W 10%	330-5018
R55	100K. POT	336-1019
SIP1, SIP3-7	4.7K	333-0812
J1	20 PIN	350-0028

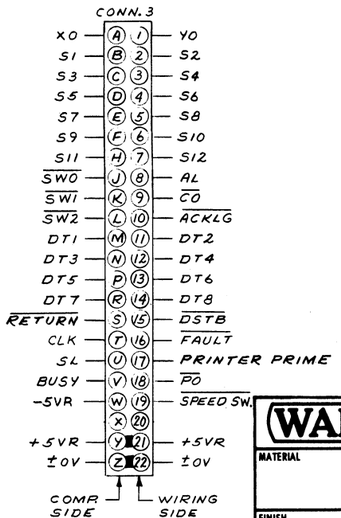
COMPONENT	TYPE	W.L.NO.
C1,15	.1uf 50V	300-1930
C2,16	.001uf 500V	300-1906
C3	100pf 500V	300-1100
C33	.01UF 25V	300-1903
C4	5.6uf 35V TA	300-4017
C5	.1uf 35V TA	300-4002
C6,18-32,34-39	.05uf 12V	300-1900
C7	.12uf 35V TA	300-4003
C17	330pf 500V	300-1330
C8,12	.047uf 100V MYLAR	300-2147
C9,10	4.7Kpf 100V	300-1932
C11	.15uf 35V TA	300-4004
C13	.0056uf 500V	300-1915
C14	2.2uf 20V TA	300-4014
C40,41	100uf 15V TA	300-4021
C42,43	220uf 15V TA	300-4045
D1,3-5	SIL.	380-1001
D2	3.9V ZENER	380-2039
D5	5.1V ZENER	380-2051
D6,8	IN4607	380-1005
Q1	SPS6551	375-1050
Q2	2N3014	375-0017
Q3	2N2222A	375-1005
XTAL	2.4576MHZ	321-0027
C44,45	10pf 500V	300-1010
C46	390pf 500V	300-1390
C47	22pf	300-1022
C48,49	.02uf 25V	300-1904

MNEMONIC	COORD
A0-A15	1A8
A1-L1	2A4
ACKLG	1A3
AL	1A1
BAUD RATE	2A5
BUSY	1A4
CLK	1A11
CLEAR	1G8
CO	1G5
D00-D07	1G1
DI0-DI7	2G7
DSTB	2B11
DT1-DT8	2E11
FAULT	1A4
FFM	1G8
FMOVLT	1C1
FOR	1G8
LFM	1G8
M0	2G1
MPA1	2G11
MPA2	2G11
MPB1	2F11
MPB2	2F11
MREQ	1A6
OUT7-L	1A5
P0	1A4
POP	1E11
PRESET	1G1
PRINTER PRIME	1F11
PRV	2B1
RD	1A6
RETURN	2B11
RFSH	1A7
S1-S12	1E1
SELT	2A9
SL	1A4
SLT1	2A11
SLT2	2A11
SPEED SW.	1G8
SW0	1G9
SW1	1G9
SW2	1G9
TCINT	2C11
USART	1A5
WR	1A6
X0	1A4
Y0	1A5









REVISION	BY	DATE
SEE SH.4 FOR REV		

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN F.S.S.	8-17-78	E ENGR	
CHK		M ENGR	
		MFG ENGR	

MATERIAL

MODEL NO. 2231W-5/6
SEE ENGRG. SPECIFICATIONS
No.

TITLE 12 SOLENOID HEAD CPU BOARD

FINISH

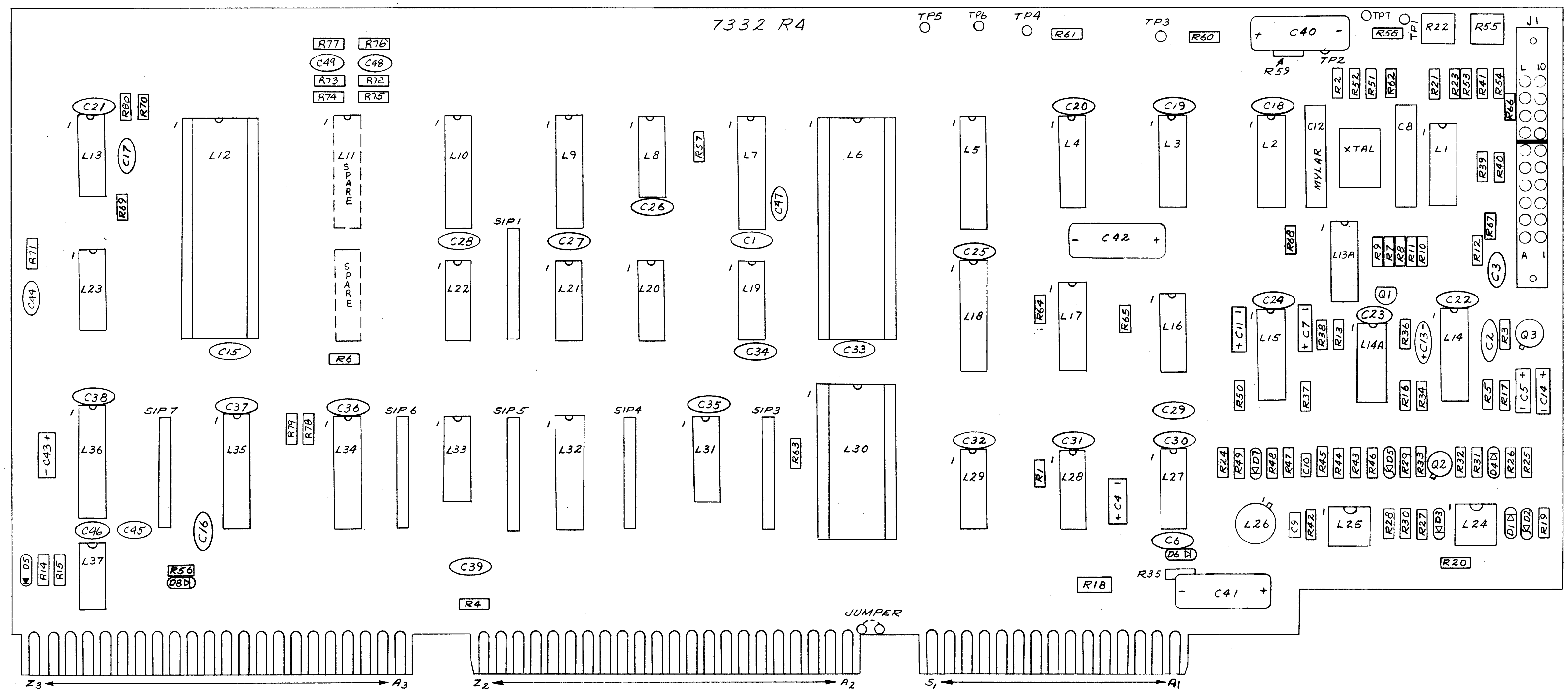
TOL. EX. AS NOTED
XX ± FRAC. ±
.XXX ± ANG. ± FINISH √

SCALE | SHT 3 OF 4

SEE CHART	D	7332	15
WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.

D 7332

DO NOT SCALE



7332
E-REV
10

NO.	REVISION	DATE	BY
0/0	ORIGINATED: PER DWR# E594 APP'D 11/8/79	8-17-78	F.S.S.
1/0	REVISED: PER E.C.N.# 9155 APP'D 11/8/79	8-17-78	F.S.S.
2/1	REVISED: PER ECN# 9538 APP'D 11/8/79	3-28-79	F.S.S.
3/2	REVISED: PER ECN# 9885 APP'D 11/8/79	3-28-79	F.S.S.
4/3	REVISED: PER ECN# 10185 APP'D 11/8/79	3-28-79	F.S.S.
5/4	REVISED: PER ECN# 10259 APP'D 11/8/79	3-28-79	F.S.S.
6/4	REVISED: PER ECN# 10484 APP'D 11/8/79	3-28-79	F.S.S.
7/5	REVISED: PER ECN 11232 APP'D 11/8/79	11-7-79	A.B
8/6	REVISED PER ECN# 11294 APP'D 11/8/79	11-7-79	A.B
9/7	REVISED PER ECN# 11462 APP'D 11/8/79	11-7-79	A.B
10/8	REVISED PER ECN# 11532 APP'D 11/8/79	11-7-79	A.B
11/9	REVISED PER ECN# 13632 APP'D: 12-20-79	12-18-79	L.D.
12/8	REVISED PER ECN# 13853 APP'D: 1-21-80	1-19-80	L.D.
13/8	REVISED PER ECN# 16257 APP'D: 12-16-80	12-10-80	R.B.P.
14/10	REVISED PER ECN# 17776 APPD 3/19/81	3-17-81	[illegible]
15/10	REVISED PER ECN# 17853 APPD 3/19/81	3-17-81	[illegible]

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN F.S.S	8-17-78	E ENGR D.THERRIAN	11-19-79
CHK [illegible]	11-8-79	M ENGR	
		MFG ENGR	

MATERIAL

MODEL NO. 2231W-5/6

SEE ENGRG. SPECIFICATIONS No.

TITLE 12 SOLENOID HEAD CPU BOARD

FINISH

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH ✓

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	D	7332	15

SCALE SHT 4 OF 4

D 7332

MILLIMETERS IN PARENTHESIS.
TOLERANCES TO BE EQUIVALENT TO INCH DIMENSIONS.

DO NOT SCALE

HOLE LEGEND & TOLERANCES

HOLE ⌀	TOLERANCE
.0135 - .125	+.003 -.001
.126 - .250	+.004 -.001
.251 - .500	+.005 -.001

SYM.	DESCRIPTION	QTY.

J3
ZESA1 (1E6) → (5) ZSA1
ZESA2 (1E5) → (2) ZSA2
ZSB1 (1E3) → (5) ZSB1
ZSB2 (1E2) → (6) ZSB2
ZSC1 (1F8) → (7) ZSC1
ZCCV (1B4) → (12) ZCCV
ZFB (1D7) → (8) ZFB
ZDT (1A6) → (4) ZDT

NOTE
ALL RESISTORS ARE 1% UNLESS SPECIFIED OTHERWISE

SEE SHT 3

QTY.	ITEM	WANG PART NO.	DRAWING NO.	DESCRIPTION
NEXT ASSY.				

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	ER	1-10-78	E ENGR S. K. HO	
CHK	G. D.	1/19/78	M ENGR	
			MFG ENGR	

MATERIAL
MODEL NO. 81W/81WWP
SEE ENGRG. SPECIFICATIONS
No.
FINISH
TOL. EX. AS NOTED
.XX ± FRAC. ±
.XXX ± ANG. ± FINISH √
SCALE SHT 1 OF 3

TITLE
SERVO CONTROL BOARD

210-7360	D	7360	22
WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.

"E" SIZE MAC LAGE

MILLIMETERS IN PARENTHESIS.
TOLERANCES TO BE EQUIVALENT TO INCH DIMENSIONS.

DO NOT SCALE

HOLE LEGEND & TOLERANCES

HOLE DIA	TOLERANCE
.0135 - .025	+ .003 - .001
.126 - .250	+ .004 - .001
.251 - .500	+ .005 - .001

SYM.	DESCRIPTION	QTY.
A		

NOTE
ALL RESISTORS ARE 1% UNLESS SPECIFIED OTHERWISE

QTY.	ITEM	WANG PART NO.	DRAWING NO.	DESCRIPTION
NEXT ASSY.				

WANG LABORATORIES INC. TEWKSBURY, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	BK	1-10-78	E ENGR S.K.HO	1/19/78
CHK	G.D.	1-19-78	M ENGR	
			MFG ENGR	

MATERIAL

MODEL NO. 81W/81WWP
SEE ENGRG. SPECIFICATIONS No.

FINISH

TOL. EX. AS NOTED
XX ± FRAC. ±
XXX ± ANG. ± FINISH √

TITLE: SERVO CONTROL BOARD

SCALE — SHT 2 OF 3

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7360	D	7360	22

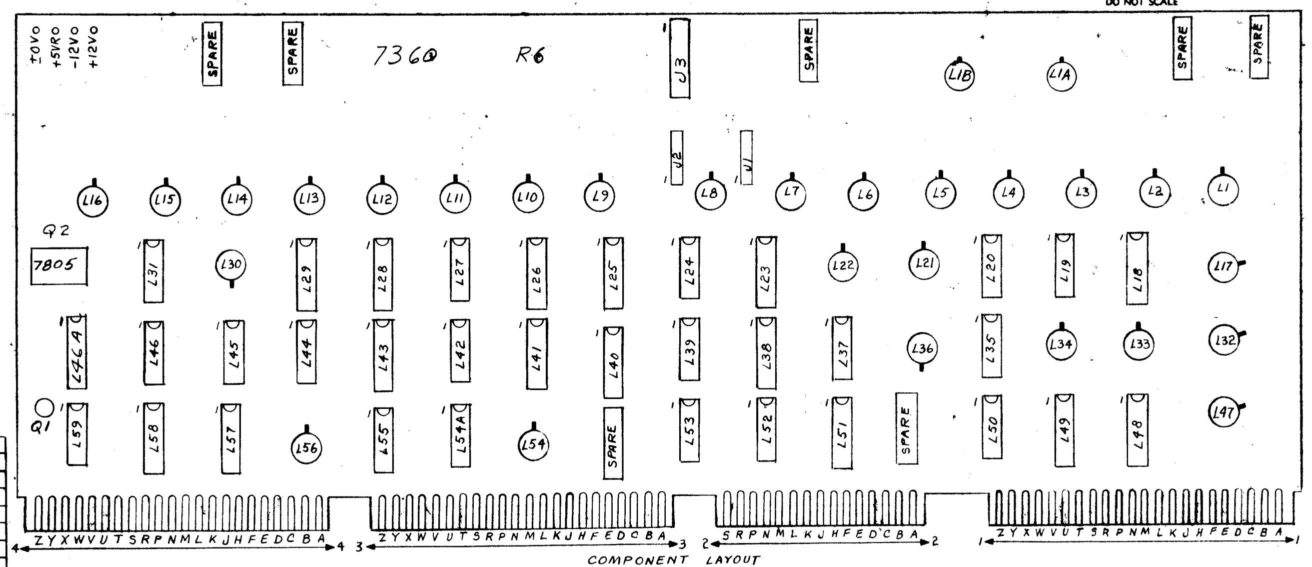
"E" SIZE PACKAGE

REVISION	BY	DATE
SEE SHT 3		

7360

MILLIMETERS IN PARENTHESIS. TOLERANCES TO BE EQUIVALENT TO INCH DIMENSIONS.

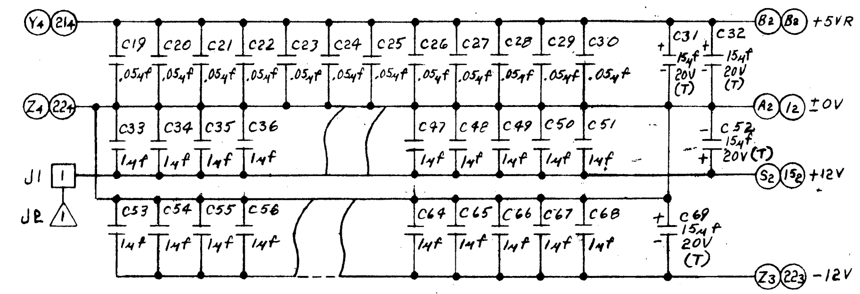
DO NOT SCALE



*	CHART			
C12	#	.033µf	—	.068µf
C9	←	.022µf	—	.033µf
C13	—	10µf (T)	—	10µf (T)
R191	—	68.1K	—	68.1K
R196	—	26.7K	—	29.4K
R195	—	698K	—	422K
R205	—	26.7K	—	22.6K
R222	—	105K	—	82.5K
R224	—	105K	—	75K
R216	—	1.05M	—	348K
R201	—	1.5K	—	1.5K
R221	—	1K	—	1.5K
R104	—	470Ω 10%	—	64.9Ω
R85	—	422K [illegible]	—	604K [illegible]

LOCATION	W.L. PART NO.	TYPE
L1-17, 32, 47, 1B	376-0187	72747
L18, 29, 49, 57	376-0226	74LS139
L19, 20, 35, 44, 45, 46, 55	376-0236	74LS164
L21, 22, 30, 33, 34, 36, 54, 56, 1A	376-0195	DG200
L23, 25, 26, 28, 38, 40, 41, 43	376-0053	74193
L24, 27, 39, 42	376-0055	7406
L31	376-0073	7490
L53	376-0010	7404
L48, 58	376-0158	74LS155
L50, 59, 37	376-0139	7414
L51	376-0188	74279
L54A	376-0002	7400
L46A	376-0104	9602
L52	376-0266	74132

MNEMONIC	COORDINATE
KEY	2B1
MBP	2A7
POWER RESET	1B1
PWRES	1B1
VCC1	1B3
VCC2	1B3
XCCV	2C5
XDT	2A5
XFB	2C7
XSA1	2E7
XSA2	2E5
XSB1	2D4
XSB2	2D3
XSC1	2G8
ZCCV	1B4
ZDT	1A6
ZFB	1D7
ZSA1	1E6
ZSA2	1E5
ZSB1	1E3
ZSB2	1E2
ZSC1	1F8

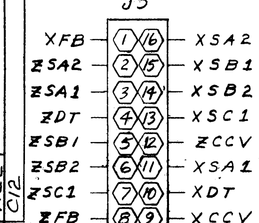


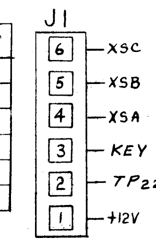
COMPONENT	W.L. PART NO.	TYPE
R1, 2, 7, 29, 34, 51, 56, 64, 67, 96, 118, 120, 125, 147, 162, 170, 185, 211, 229, 230, 238	330-3022	2.2K 10%
R5, 119, 122, 235	330-4010	10K 10%
R4, 68, 71, 121, 124, 164, 186	333-0088	5.11K 1%
R8, 25, 81, 91, 92, 108, 110, 117, 192, 200, 219, 220, 242, 251, 258	330-3047	4.7K 10%
R9, 45, 52, 113, 126, 177, 156, 195, 236	333-0074	422K 1%
R10, 57, 61, 84, 100, 107, 155, 176, 193, 206, 214, 248, 249, 250	333-0080	32.4K 1%
R98, 102, 199, 207, 243-247	333-0079	63.4K 1%
R13, 14, 128, 132	333-0081	16.2K 1%
R15, 16, 129, 133	333-0113	8.06K 1%
R17, 18, 130, 134	333-0060	4.02K 1%
R43, 152	333-0093	2.37K 1%
R23, 24, 26, 30, 40, 46, 111, 116, 141, 144, 166, 167, 201, 139, 140, 221	333-0107	1.5K 1%
R53, 58, 182, 161	333-0058	681Ω 1%
R27, 31, 32, 33, 36, 37, 39, 62, 65, 123, 142, 149, 151, 154, 157, 158, 159, 168, 172, 173, 6, 180	333-0086	105K 1%
R28, 89, 148, 226, 228	333-0099	210K 1%
R35, 79, 150, 202, 212	333-0097	16.9K 1%
* R42, 48, 143, 169	330-5047	470K 10%
R44, 50, 94, 153, 175	333-0083	1.58M 1%
R41, 47	330-5010	100K 10%
R55, 60, 112, 146, 178, 223	333-0096	12.7K 1%
R63, 66, 88, 97, 160, 181	333-0082	3.16M 1%
R74-77, 187-190, 87	333-0064	56.2K 1%
R80	333-0114	21K 1%
R82, 90, 103, 115, 204, 208, 215, 227, 231	330-1010	10Ω 10%
R21, 22, 49, 99, 136, 138, 174, 241	333-0089	1K 1%
R240	330-1022	22Ω 10%
R101, 203	333-0108	18.2K 1%
R105, 217, 197, 218	333-0084	1.05M 1%
R196	333-0162	29.4K 1/8W
R205	333-0098	26.7K 1%
R210	333-0117	2.21K 1%
R225	333-0062	249K 1%
R114	333-0087	162K 1%
R109	333-0071	698K 1%
R104	333-0180	64.9K 1/8W
R198	333-0075	348K 1%
R232-234	330-2022	220Ω 10%
R54, 59, 69, 72, 78, 145, 163, 178, 184, 222	333-0095	82.5K 1%
R19, 20, 93, 185, 137	333-0111	2K 1%
R38, 3, 95, 106, 171, 209, 213, 252-255	333-0090	10K 1%
R83, 194	333-0109	46.4K 1%
R73, 70, 165, 183	333-0112	10.5K 1%
R237	330-3010	1K 10%
R191	333-0116	68.1K 1/8W
R239	330-4047	47K 10%
D53	380-1004	D035 SIL
D1-47	380-1001	D035 SIL
D48, 49	380-4000	1N4004
D50	380-2033	1N746A
Q2	374-0001	7805
Q1	375-0017	2N3014
* C1, 2, 5, 16, 18	300-1903	.01µf
C3	300-1904	.02µf
C6	300-1942	1500pf
C7	300-1927	.022µf
* C8	300-1220	220pf
C14	300-1940	.001µf
C17	300-1100	100pf
C19-30	300-1900	.05µf
C31, 32, 52, 69	300-4022	15µf 20V(T)
C33-51, 53-68, 13	300-1931	1µf (HI FREQ)
C4	300-1330	330pf
C10	300-4013	1.2µf (T)
C11	300-3010	50µf 50V
C9	300-1947	.033µf
C15	300-4032	6.8µf 35V (T)
J1, 2	654-0106	SOCKET
J3	376-9002	SOCKET
R256, 257	330-2069	680Ω 5%
D51, 52	380-2051	1N751A
R224	330-4076	75K 5%
C12	300-1939	.068µf

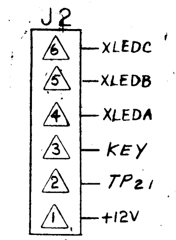
R11, 12, 86, 127, 131.

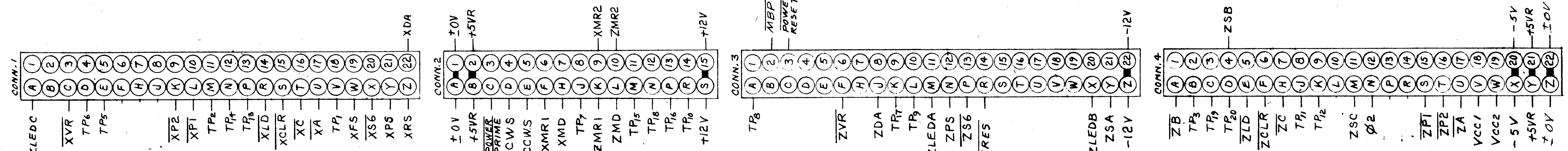
LOCATION	TYPE	SPARES
L18	74LS139	1
L29	74LS139	1
L46A	9602	1
L50	7414	2
L54A	7400	3
L59	7414	3

NOTE: C1, 5, 16, R42, 48, 143, 169, C8 NOT LOADED









7360 E-REV 18

7360-1 E-REV 3

HOLE LEGEND & TOLERANCES		
HOLE DIA	TOLERANCE	
.0135 - .125	+ .003 - .001	
.126 - .250	+ .004 - .001	
.251 - .500	+ .005 - .001	
SYM.	DESCRIPTION	QTY.
	SIGNAL INDEX	

MNEMONIC	COORDINATE
TP 1	2G2
2	2G5
3	1G4
4	1G2
5	2B11
6	2B11
7	2G4
8	2D1
9	1G4
10	1G5
11	1B11
12	1B11
13	2C11
14	2C11
15	2G6
16	2G7
17	1G6
18	1G7
19	1B11
TP 20	1B9
XA	2F11
XB	2E11
XC	2F11
XCLR	2B8
XDA	2B7
XFS	2B4
XLD	2B8
XLEDA	2G5
XLEDB	2G3
XLEDC	2C11
XMD	2B1
XMR1	2C1
XMR2	2B2
XP1	2B8
XP2	2B8
XPS	2B5
XRS	2C1
XS6	2B8
XSA	2G7
XSB	2G5
XSC	2G8
XVR	2C1
ZA	1F11
ZB	1D11
ZC	1G9
ZCLR	1B8
ZCCWS	1G5
ZCWS	1B4
ZDA	1B8
ZLD	1B8
ZLEDA	1G5
ZLEDB	1G3
ZLEDC	1C11
ZMD	1C1
ZMR1	1C1
ZMR2	1B3
ZP1	1B8
ZP2	1B8
ZPS	1B4
ZS6	1G7
ZSA	1G7
ZSB	1G4
ZSC	1G8
ZVR	1G7

NO.	REVISION	DATE	BY
0	ORIGINATED PER DWR E406 APP'D: 1-19-78	1-78	AR
1	REVISED PER ECN # 7867 APP'D: 1-19-78	1-78	AR
2	REVISED PER ECN # 8181 APP'D: 7/7/78	5-26-78	[illegible]
3	REVISED PER ECN # 8309 APP'D: 7/7/78	5-26-78	[illegible]
4	REVISED PER ECN # 8496 APP'D: 7/7/78	5-26-78	[illegible]
5	REVISED PER ECN # 8683 APP'D: 7/7/78	5-26-78	[illegible]
6	REVISED PER ECN # 8913 APP'D: 7/7/78	5-26-78	[illegible]
7	REVISED PER ECN # 8997 APP'D: 7/7/78	5-26-78	[illegible]
8	REVISED PER ECN # 9332 APP'D: 11/20/78	11-2-78	[illegible]
9	REVISED PER ECN # 9435 APP'D: 11/20/78	11-2-78	[illegible]
10	REVISED PER ECN # 9473 APP'D: 11/20/78	11-2-78	[illegible]
11	REVISED PER ECN # 9512 APP'D: 11/20/78	11-2-78	[illegible]
12	REVISED PER ECN # 9834, 9595 APP'D: 11/20/78	11-2-78	[illegible]
13	REVISED PER ECN # 10705 APP'D: 8-16-79	7-17-79	GK
14	REVISED PER ECN # 10963, 11263 APP'D: 8-16-79	7-17-79	GK
15	REVISED PER ECN # 11,714, 11843 APP'D: 8-16-79	7-17-79	GK
16	REVISED PER ECN # 11621 APP'D: 8-16-79	7-17-79	L.D.
17	REVISED PER ECN # 12928 APP'D: 8-16-79	7-25-79	S.K.
18	REVISED PER BCN # 13714 APP'D: 12-11-79	12-11-79	[illegible]
19	REVISED PER ECN # 14796 APP'D: 4-1-80	4-2-80	[illegible]
20	REVISED PER ECN # 15098 APP'D: 5-6-80	5-6-80	[illegible]
21	REVISED PER ECO # 17717 APP'D: 2-9-81	1-29-81	JEP
22	REVISED PER ECO # 17849 APP'D: 2-10-81	1-29-81	JEP

QTY.	ITEM	WANG PART NO.	DRAWING NO.	DESCRIPTION
NEXT ASSY.				

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

MATERIAL

FINISH

MODEL NO. 81W / 81WP

SEE ENGRG. SPECIFICATIONS No.

TOL. EX. AS NOTED: XX ±, XXX ±, FRAC. ±, ANG. ±, FINISH ✓

SCALE 1/1 | SHT 3 OF 3

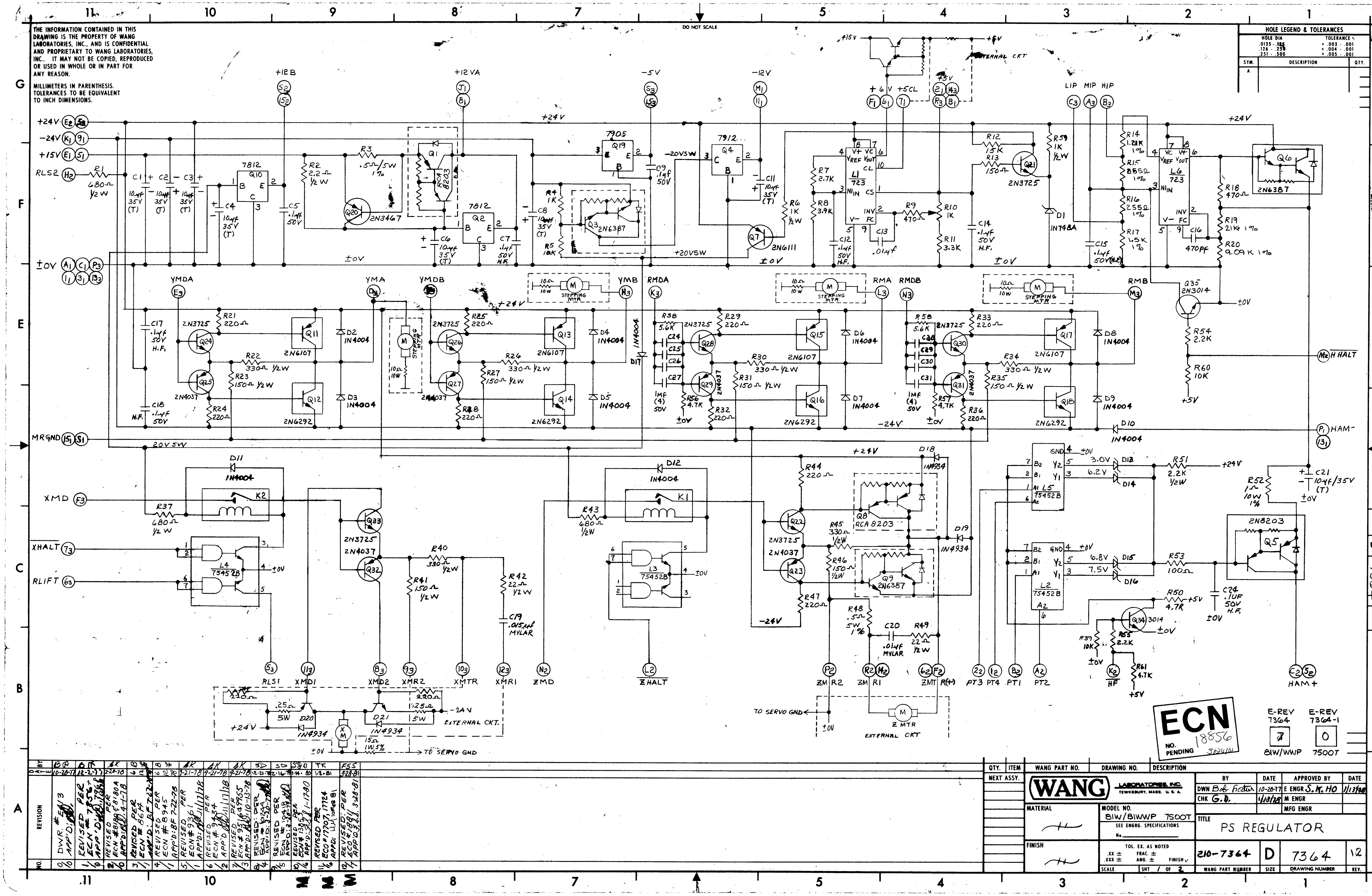
	BY	DATE	APPROVED BY	DATE
DWN	GK	1-4-78	E ENGR S.K. HO	[illegible]
CHK	G.D.	[illegible]	M ENGR	
			MFG ENGR	

TITLE: SERVO CONTROL BOARD

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7360	D	7360	22

D 7360

"E" SIZE PACKAGE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MILLIMETERS IN PARENTHESIS. TOLERANCES TO BE EQUIVALENT TO INCH DIMENSIONS.
DO NOT SCALE
HOLE LEGEND & TOLERANCES
+24V
-24V
+15V
RLS2
±0V
MRGND
XMD
XHALT
RLIFT
+12B
+12VA
-5V
-12V
LIP MIP HIP
YMDA
YMA
YMDB
YMB
RMDA
RMA
RMDB
RMB
H HALT
HAM-
HAM+
7812
7905
7912
723
2N3467
2N6387
2N6111
2N3725
2N6107
2N4037
2N6292
IN4004
IN4934
IN748A
RCA 8203
2N3014
2N8203
75452B
STEPPING MTR
EXTERNAL CKT
TO SERVO GND
Z MTR
RLS1
XMD1
XMD2
XMR2
XMTR
XMR1
ZMD
Z HALT
ZM R2
ZM R1
ZMT
R(+)
PT3
PT4
PT1
PT2
HF
ECN
NO. 18856
PENDING
E-REV 7364
E-REV 7364-1
7
0
81W/WWP
7500T
WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.
MODEL NO. 81W/81WWP 7500T
DWN Bob Foster 10-28-77
CHK G.D.
E ENGR S. K. HO
TITLE PS REGULATOR
210-7364
D
7364
12

MILLIMETERS IN PARENTHESIS.
TOLERANCES TO BE EQUIVALENT TO INCH DIMENSIONS.

DO NOT SCALE

HOLE LEGEND & TOLERANCES

HOLE DIA	TOLERANCE
.0135 - .125	+ .003 - .001
.126 - .250	+ .004 - .001
.251 - .500	+ .005 - .001

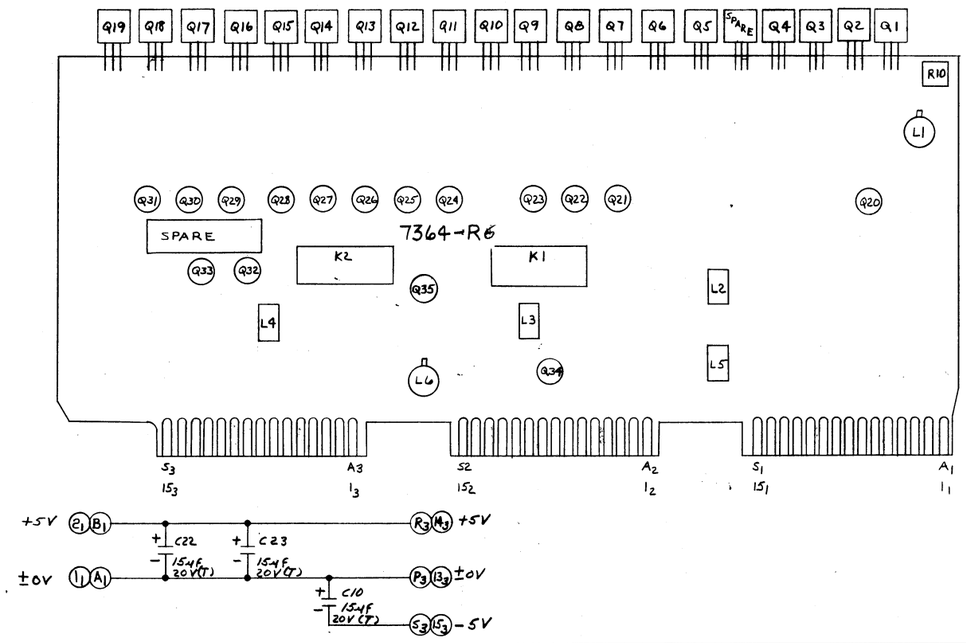
SYM.	DESCRIPTION	QTY.
A		

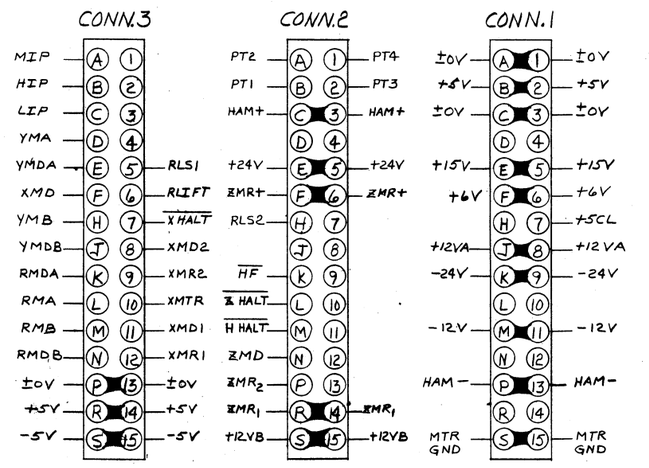
LOCATION	W.L. PART NO.	GND	Vcc
L1,6	376-0066	5	
L2-5	376-0145	4	8

COMPONENT	W.L. PART NO.
R1,37,43	331-2068
R2	331-0022
R3,48	334-0028
R4,	330-3010
R5,39,60	330-4010
R6,59	331-3010
R7	330-3027
R8	330-3039
R9,18	330-2047
R11	330-3033
R12	330-4015
R13	330-2015
R53	330-2010
R14	333-0059
R50,56,57,61	330-3047
R21,24,25,28,29,32,33,36,44,47	330-2022
R22,26,30,34,40,45	331-2033
R23,27,31,35,41,46	331-2015
R42,49	331-1022
R51	331-3022
R52	334-0000
R10	336-1014
R54,55	330-3022
C1-4, 6, 8, 11, 21	300-4032
* C5,7,9,24,12,14,15,17,18	300-1930
C16	300-1470
C19	300-2115
C20	300-2110
C10,22,23	300-4022
D1	380-2039
D2-12,17	380-4000
D13	380-2033
Q1,5,8	375-1053
Q2,10	374-0000
Q3,6,9	375-1052
Q4	374-0003
Q34,35	375-0017
Q7	375-1034
Q11,13,15,17	375-1058
Q12,14,16,18	375-1051
Q19	374-0002
Q20	375-1026
Q21,22,24,26,28,30,33	375-1027
Q23,25,27,29,31,32	375-0018

COMPONENT	W.L. PART NO.
C24-31	300-1931
K1,2	320-0047
R38,58	330-3056
R15,16	333-0137
R17	333-0107
R19	333-0114
R20	333-0061
C13	300-1303
D14	380-2062
D15	380-2068
D16	380-2075
D18-21	380-4011

* C24 IS LOADED ON 7364-1 ONLY





QTY.	ITEM	WANG PART NO.	DRAWING NO.	DESCRIPTION
NEXT ASSY.				

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	B. Soto	10-31-77	E ENGR S.K. HO	1/13/78
CHK	G.D.	1/13/78	M ENGR	
			MFG ENGR	

MATERIAL

MODEL NO. 8W/8WWP 7500T
SEE ENGRG. SPECIFICATIONS
No.

FINISH

TOL. EX. AS NOTED
.XX ± FRAC. ±
.XXX ± ANG. ± FINISH √

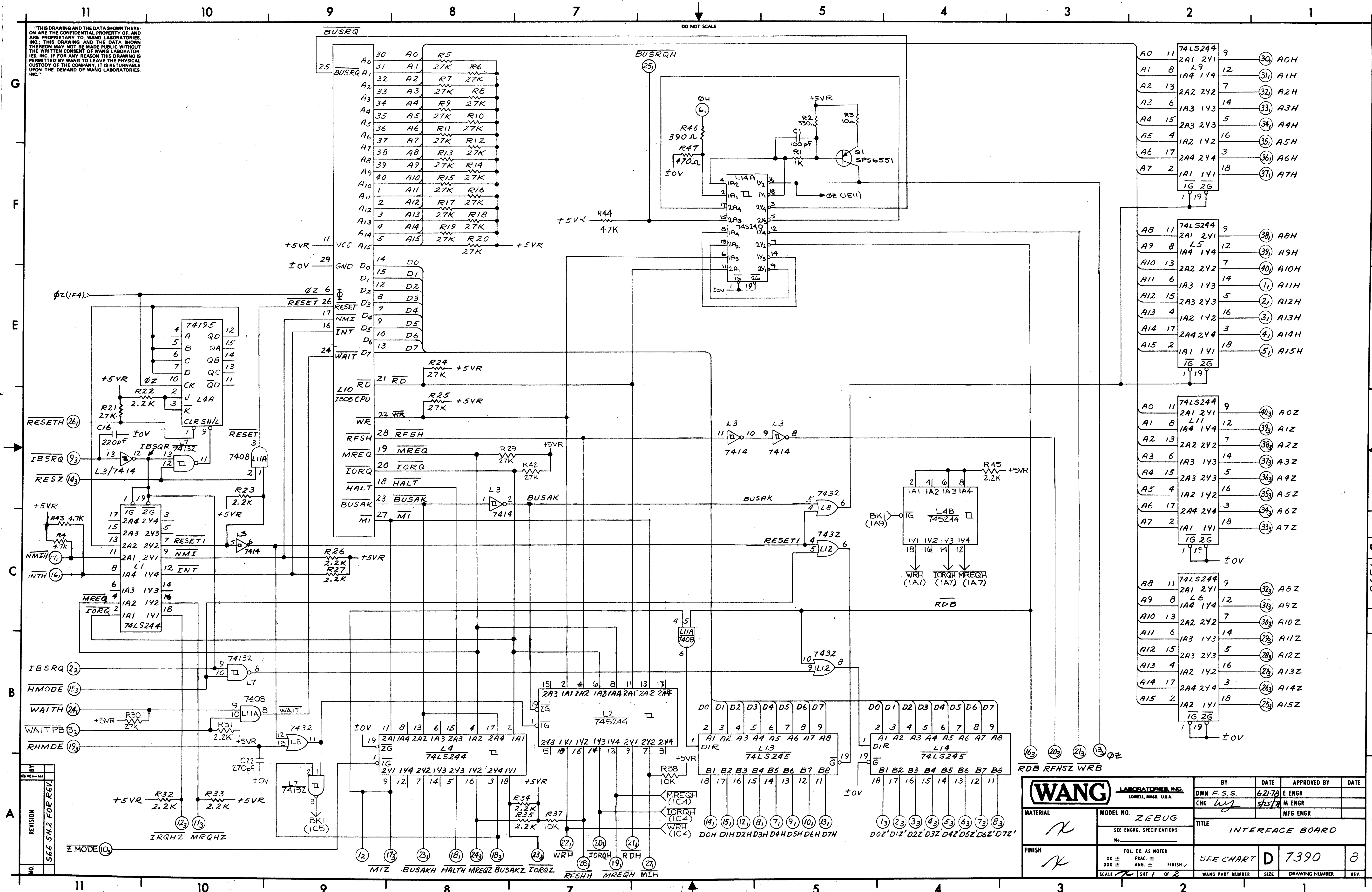
SCALE SHT 2 OF 7

TITLE: PS REGULATOR

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7364	D	7364	12

NO.	REVISION	DATE	BY
	SEE SHT 1		

D 7364


DO NOT SCALE
BUSRQ
BUSRQH
L10
Z80B CPU
74195
L4A
74LS244
L1
L9
L5
L11
L6
L14A
74S240
Q1
SP56551
L2
74S244
L4
74LS244
L13
74LS245
L14
74LS245
L4B
74S244
7414
7432
7408
74132
RESETH
IBSRQ
RESZ
NMIH
INTH
HMODE
WAITH
WAITPB
RHMDE
IRQHZ
MRQHZ
Z MODE
MIZ
BUSAKH
HALTH
MREQZ
BUSAKZ
IORQZ
WRH
RFSHH
IORQH
MREQH
RDH
MIH
RDB
RFHSZ
WRB
ØZ
DOH D1H D2H D3H D4H D5H D6H D7H
DOZ' D1Z' D2Z' D3Z' D4Z' D5Z' D6Z' D7Z'
AOH A1H A2H A3H A4H A5H A6H A7H
A8H A9H A10H A11H A12H A13H A14H A15H
AOZ A1Z A2Z A3Z A4Z A5Z A6Z A7Z
A8Z A9Z A10Z A11Z A12Z A13Z A14Z A15Z
D 7390

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REVISION: SEE SH. 2 FOR REV.

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	F.S.S.	6/21/78	E ENGR	
CHK		5/25/78	M ENGR	
			MFG ENGR	

MATERIAL: X

MODEL NO. ZEBUG

SEE ENGRG. SPECIFICATIONS

TITLE: INTERFACE BOARD

FINISH: X

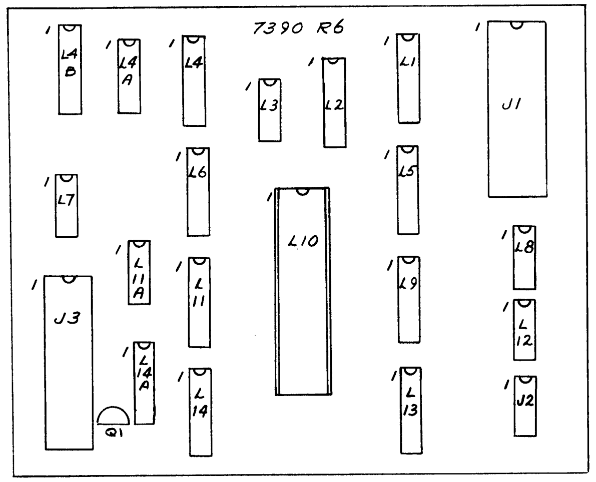
TOL. EX. AS NOTED

SEE CHART — D — 7390 — 8

WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.

SCALE: X — SHT 1 OF 2

DO NOT SCALE



COMPONENT	TYPE	W. L. NO.
R46	390Ω 1/4W 10%	330-2039
R47	470Ω 1/4W 10%	330-2047
R1	1K 1/4W 10%	330-3010
R2	330Ω 1/4W 10%	330-2033
R37, 38	10K 1/4 W 10%	330-4010
R3	10Ω 1/4W 10%	330-1010
R4, 43, 44	4.7K	330-3047
R5-21, 24, 25, 29, 30, 42	27K 1/4W 10%	330-4027
R22, 23, 26, 27, 31-35, 45	2.2K 1/4W 10%	330-3022
C1	100 pf 500 V	300-1100
C2-15	.05µf 12V	300-1900
C18, 19, 21	15µf 20V TA.	300-4022
C16	220 pf 500 V	300-1220
C17, 20	.01µf 25V	300-1903
C22	270pf 500V	300-1270
J1, 3, L10	SOCKET	376-9011
J2	SOCKET	376-9012
Q1	SPS6551	375-1050

I.C. LOCATION	TYPE	W. L. NO.
L1, 4, 5, 6, 9, 11	74LS244	376-0288
L2, L4B	74S244	376-0338
L3	7414	376-0139
L4A	74195	376-0097
L7	74132	376-0266
L8, 12	7432	376-0093
L10	Z80B CPU	SEE CHART
L11A	7408	376-0081
L13, 14	74LS245	376-0285
L14A	74S240	376-0334

LOCATION	TYPE	SPARES
L3	7414	1
L7	74132	1
L8	7432	2
L11A	7408	1
L12	7432	2
L4B	74S244	1

MNEMONIC	COORDINATE
A0H - A7H	1G1
A8H - A15H	1E1
A0Z - A7Z	1D1
A8Z - A15Z	1B1
BUSAKH	1A8
BUSAKZ	1A8
BUSRQH	1G6
D0H - D7H	1A5
D0Z'-D7Z'	1A4
HALTH	1A8
HMODE	1B11
IBSRQ	1B11
IBSRQ	1D11
INTH	1C11
IORQH	1A7
IORQZ	1A7
IRQHZ	1A10
M1H	1A6
M1Z	1A9
MREQH	1A7
MREQZ	1A8
MRQHZ	1A10
NMIH	1C11
RDB	1A3
RDH	1A6
RESETH	1D11
RESZ	1D11
RFSHH	1A7
RFSHZ	1A3
RHMDE	1B11
WRB	1A3
WRH	1A7
WAITH	1B11
WAITPB	1B11
ZMODE	1A11
ØH	1G6
ØZ	1F4

J1

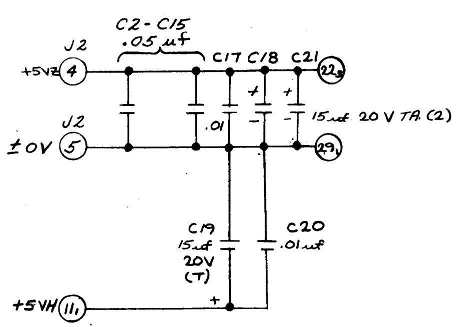
Signal	Pin	Pin	Signal
A11H	1	40	A10H
A12H	2	39	A9H
A13H	3	38	A8H
A14H	4	37	A7H
A15H	5	36	A6H
ØH	6	35	A5H
D4H	7	34	A4H
D3H	8	33	A3H
D5H	9	32	A2H
D6H	10	31	A1H
+5VH	11	30	A0H
D2H	12	29	±0V (SHLD)
D7H	13	28	RFSHH
D0H	14	27	M1H
D1H	15	26	RESETH
INTH	16	25	BUSRQH
NMIH	17	24	WAITH
HALTH	18	23	BUSAKH
MREQH	19	22	WRH
IORQH	20	21	RDH

J2

Signal	Pin	Pin
M1Z	1	14
IBSRQ	2	13
WAITPB	3	12
+5VZ	4	11
±0V	5	10
	6	9
	7	8

J3

Signal	Pin	Pin	Signal
D0Z'	1	40	A0Z
D1Z'	2	39	A1Z
D2Z'	3	38	A2Z
D3Z'	4	37	A3Z
D4Z'	5	36	A4Z
D5Z'	6	35	A5Z
D6Z'	7	34	A6Z
D7Z'	8	33	A7Z
IBSRQ	9	32	A8Z
ZMODE	10	31	A9Z
MRQHZ	11	30	A10Z
IRQHZ	12	29	A11Z
ØZ	13	28	A12Z
RESZ	14	27	A13Z
HMODE	15	26	A14Z
RDB	16	25	A15Z
M1Z	17	24	MREQZ
BUSAKZ	18	23	IORQZ
RHMDE	19	22	+5VZ
RFSHZ	20	21	WRB



210=209+378 OR 377		
210	209	L10
7390A	7390	377-0394

E-REV. 6

NO.	DATE	BY	REVISION
0/0	6-24-78	FSS	ORIGINATED: PER DWR E440 APP'D. 9-19-78
1/0	6-24-78	FSS	REVISED: PER ECN # 8730 APP'D. 9-19-78
2/0	6-24-78	FSS	REVISED: PER ECN # 8963 APP'D. 9-19-78
3/0	8-19-78	FSS	REVISED: PER ECN # 9350 APP'D 9-19-78
4/0	9-18-78	FSS	REVISED: PER ECN # 9584 APP'D 9-19-78
5/3	3-12-79	SD	REV. PER ECN # 9633, 10327, 10680 APP'D: 4/11/79
6/4	5-23-79	L.D.	REV. PER ECN'S 10958 + 11345 APP'D: 5/25/79
7/5	7-21-80	JSW	REVISED PER ECN # 15570 APPD: 7-30-80
8/6	12-30-80	F.S.S.	REVISED: PER ECO # 17245 APP'D. 12-30-80

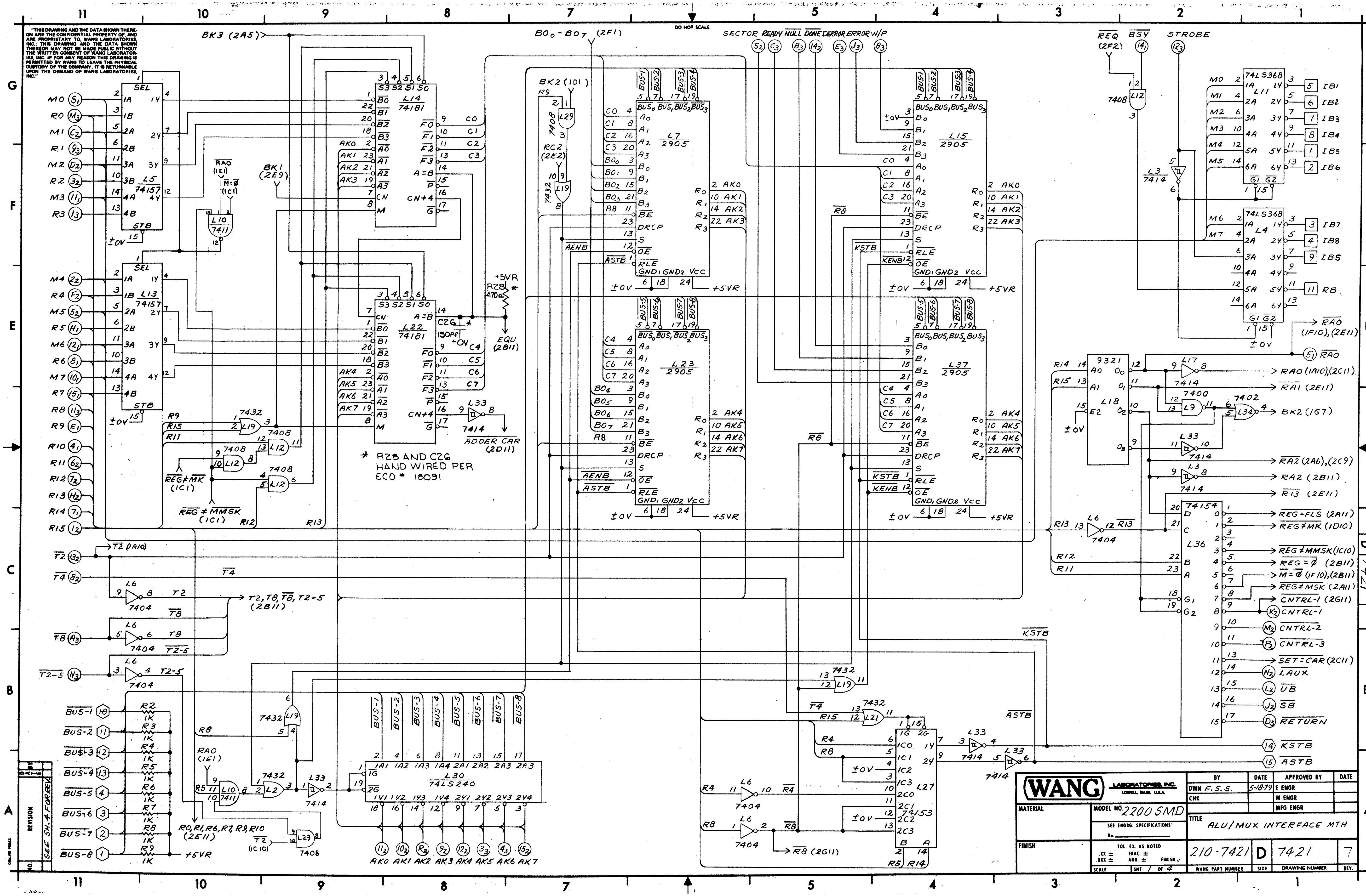
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

BY		DATE	APPROVED BY	DATE
DWN	F. S. S.	6-24-78	E ENGR	
CHK		5/25/79	M ENGR	
			MFG ENGR	

MATERIAL
MODEL NO. ZEBUG
SEE ENGRG. SPECIFICATIONS No.
TITLE: INTERFACE BOARD
FINISH
TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH
SCALE — SHT 2 OF 2

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	D	7390	8

D 7390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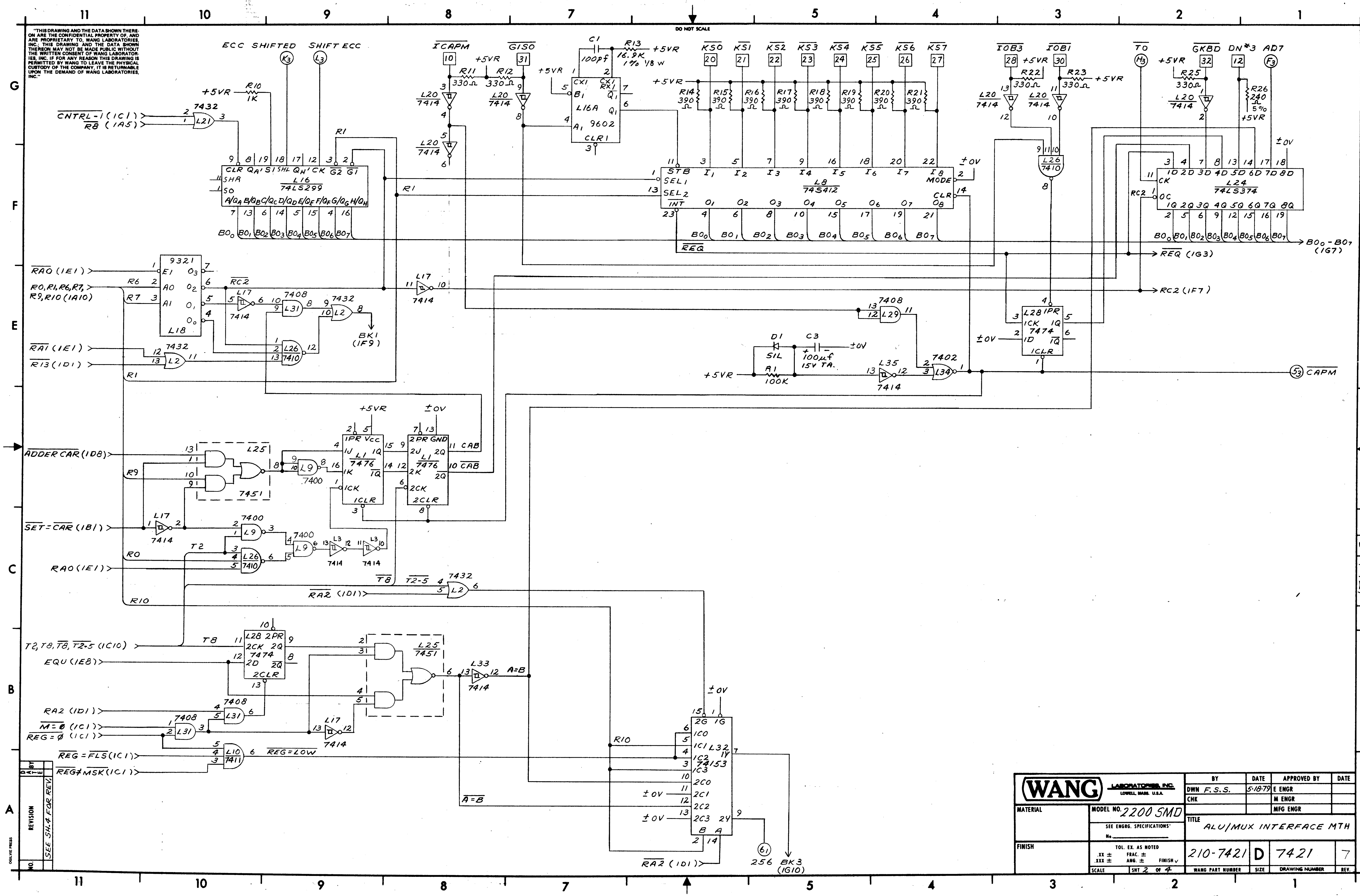
DO NOT SCALE
* R28 AND C26 HAND WIRED PER ECO * 18091
SECTOR READY NULL DONE DERROR ERROR W/P
REQ (2F2) BSY STROBE
BK3 (2A5)
B0₀ - B0₇ (2F1)
BK2 (1D1)
BK1 (2E9)
L14 74181
L22 74181
L5 74157
L13 74157
L7 2905
L15 2905
L23 2905
L37 2905
L11 74LS368
L4 74LS368
L18 9321
L36 74154
L27 74153
L30 74LS240
ADDER CAR (2D11)
EQU (2B11)
T2, T8, T8, T2-5 (2B11)
R0, R1, R6, R7, R9, R10 (2E11)
AK0 AK1 AK2 AK3 AK4 AK5 AK6 AK7
RAO (1F10), (2E11)
RAO (1A10), (2C11)
RA1 (2E11)
BK2 (1G7)
RA2 (2A6), (2C9)
RA2 (2B11)
R13 (2E11)
REG=FLS (2A11)
REG≠MK (1D10)
REG≠MMSK (1C10)
REG=Ø (2B11)
M=Ø (1F10), (2B11)
REG≠MSK (2A11)
CNTRL-1 (2G11)
CNTRL-1
CNTRL-2
CNTRL-3
SET=CAR (2C11)
LAUX
UB
SB
RETURN
KSTB
ASTB
R8 (2G11)
+5VR
SEE SH. 4 FOR REV
REVISION
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MATERIAL
MODEL NO. 2200 SMD
SEE ENGRG. SPECIFICATIONS
FINISH
TOL. EX. AS NOTED
SCALE
SHT 1 OF 4
BY DATE APPROVED BY DATE
DWN F.S.S. 5-18-79 E ENGR
CHK M ENGR
MFG ENGR
TITLE ALU/MUX INTERFACE MTH
210-7421 D 7421 7
WANG PART NUMBER SIZE DRAWING NUMBER REV.
D 7421



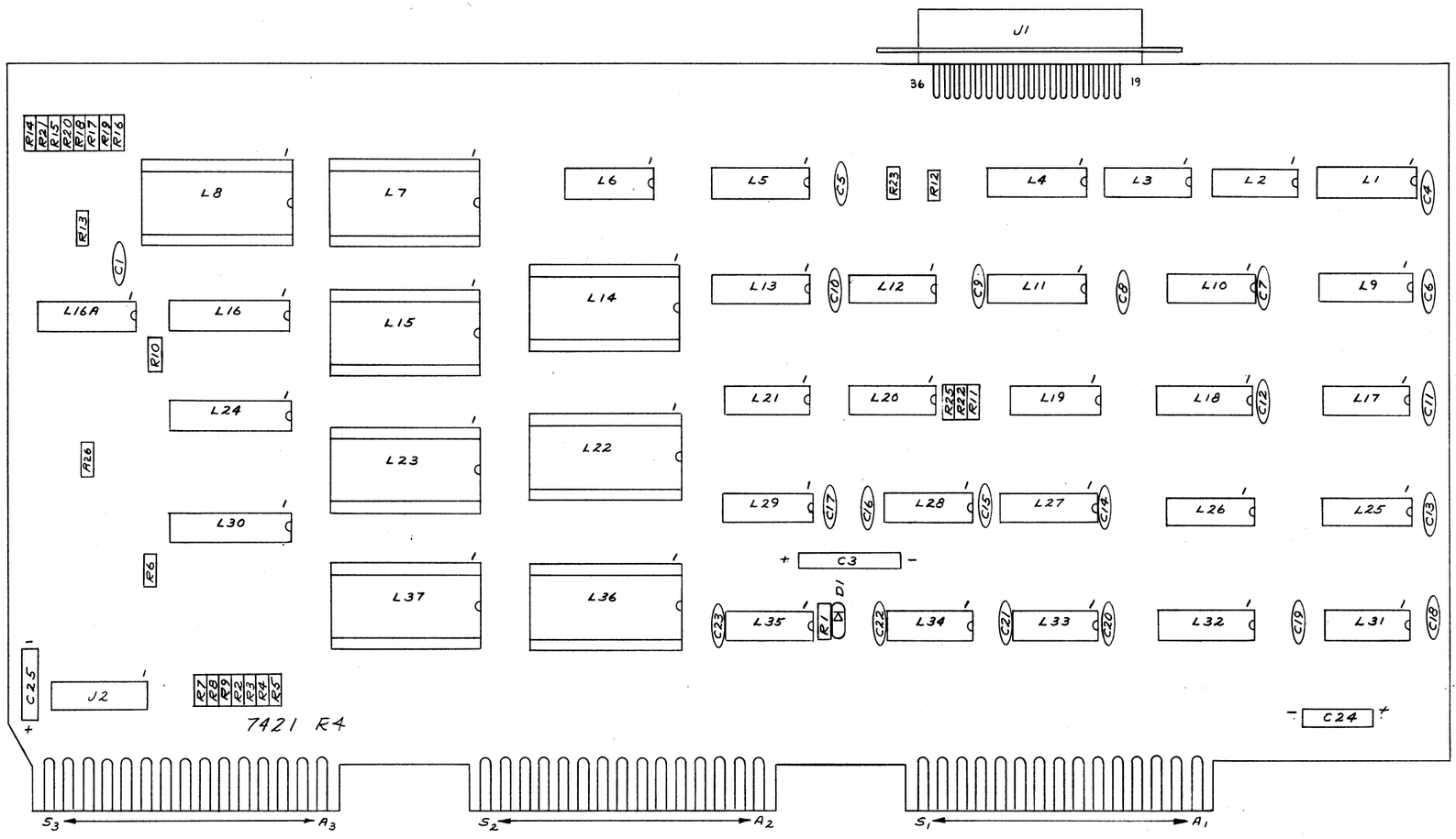
REVISION: SEE SH. 4 FOR REV.

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MODEL NO.	2200 SMD
DWN	F.S.S. 5-18-79
TITLE	ALU/MUX INTERFACE MTH
WANG PART NUMBER	210-7421
SIZE	D
DRAWING NUMBER	7421
REV.	7
SHT	2 OF 4

D 7421

DO NOT SCALE



BY	DATE	APPROVED BY	DATE
DWN F. S. S.	5-19-79	E ENGR	
CHK		M ENGR	
		MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL

MODEL NO. 2200 SMD

SEE ENGRG. SPECIFICATIONS

No.

TITLE ALU/MUX INTERFACE MTH

FINISH

TOL. EX. AS NOTED
.XX ± FRAC. ±
.XXX ± ANG. ± FINISH √

SCALE	SHT 3 OF 4	WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
		210-7421	D	7421	7

NO.	REVISION	BY	DATE
	SEE SH. 4 FOR REV.		

CHARLYNE PRESS

D 7421

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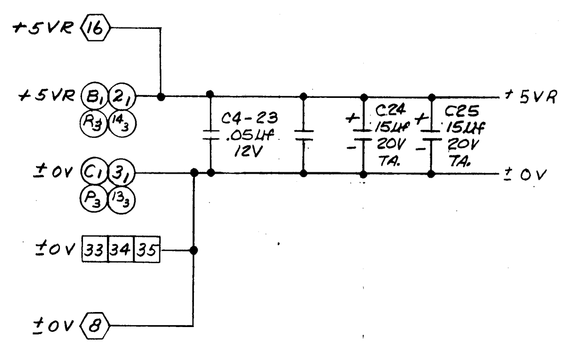
DO NOT SCALE

I.C. LOCATION	TYPE	W.L. NO.
L1	7476	376-0007
L2,19,21	7432	376-0093
L6	7404	376-0010
L4,11	74LS368	376-0193
L5,13	74157	376-0082
L7,15,23,37	AM2905	377-0353
L8	74S412	376-0320
L9	7400	376-0002
L10	7411	376-0194
L12,29,31	7408	376-0081
L14,22	74181	376-0099
L16	74LS299	376-0303
L16A	9602	376-0104
L3,17,20,33,35	7414	376-0139
L18	9321	376-0096
L24	74LS374	376-0286
L25	7451	376-0012
L26	7410	376-0003
L27,32	74153	376-0048
L28	7474	376-0006
L30	74LS240	376-0297
L34	7402	376-0016
L36	74154	376-0090
L7,8,14,15,22,23,36,37	24 PIN SKT.	376-9003

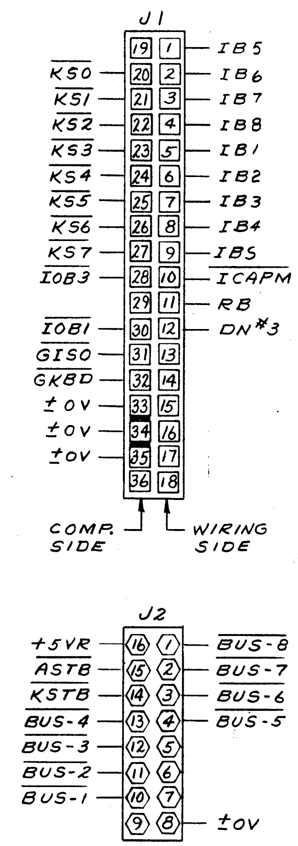
COMPONENT	TYPE	W.L. NO.
R1	100K, 1/4W, 10%	330-5010
R2-10	1K 1/4W 10%	330-3010
R11,12,22,23,25	330Ω 1/4W 10%	330-2033
R13	16.9K 1/8W 1%	333-0097
R14-21	390Ω 1/4W 10%	330-2039
R26	240Ω 1/4W 5%	330-2025
R28	470Ω 1/4W 10%	330-2047
C1	100pf. 500V	300-1100
C3	100µf, 16V(E)	300-3011
C4-23	.05µf 12V	300-1900
C24,25	15µf 20V TA.	300-4022
C26	150Pf 500V	300-1150
D1	SIL.	380-1001
J1	36 PIN CONN	350-2096
J2	16 PIN SKT.	376-9005

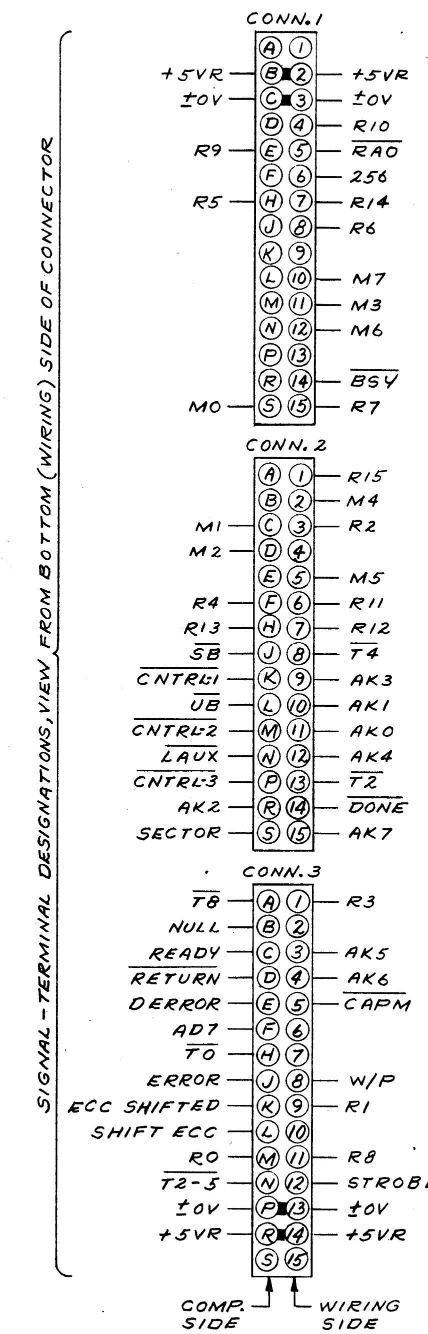
MNEMONIC	COORD.
AD7	2G1
AK0-AK7	1A8
ASTB	1A1
BUS-1 - BUS-8	1B11
BSY	1G2
CAPM	2E1
CNTRL-1, 2, 3	1C1
DERROR	1G5
DONE	1G5
DN#3	2G2
ECC SHIFTED	2G9
ERROR	1G5
GISO	2G7
GKBD	2G2
IB1-IB8	1G1
IBS	1F1
ICAPM	2G8
IOB1, IOB3	2G3
KS0-KS7	2G6
KSTB	1B1
LAUX	1B1
M0-M7	1G11
NULL	1G5

MNEMONIC	COORD.
R0-R15	1G11
RAO	1E1
RB	1E1
READY	1G5
RETURN	1B1
SB	1B1
SECTOR	1G5
SHIFT ECC	2G9
STROBE	1G2
TO	2G2
T2, T4, T8, T2-5	1C11
UB	1B1
W/P	1G4
256	2A5



I.C. LOCATION	TYPE	SPARES
L3	7414	2
L16A	9602	1
L17	7414	1
L21	7432	2
L29	7408	1
L31		1
L34	7402	2
L35	7414	5





E-REV 3

NO.	REVISION	DATE	BY
0	ORIGINATED PER DWR #5211 APP'D	5-21-79	F.S.S.
1	REVISED PER ECN #10439 APP'D	5-22-79	F.S.S.
2	REVISED PER ECN #10388 APP'D	5-22-79	F.S.S.
3	REVISED PER ECN APP'D	5-22-79	F.S.S.
4	REVISED PER ECN #12079 APP'D	7-16-79	[illegible]
5	REVISED PER ECN #12864 APP'D	11-7-79	J.D.C.
6	REVISED PER ECN 18091 APP'D	3-16-81	[illegible]
7	REVISED PER ECO#18853 APP'D	4-27-81	DB

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	F.S.S.	5-21-79	E ENGR [illegible]	11/20/79
CHK	[illegible]	11/8/79	M ENGR	
			MFG ENGR	

MATERIAL

MODEL NO. 2200 SMD

SEE ENGRG. SPECIFICATIONS No.

TITLE ALU/MUX INTERFACE MTH

FINISH

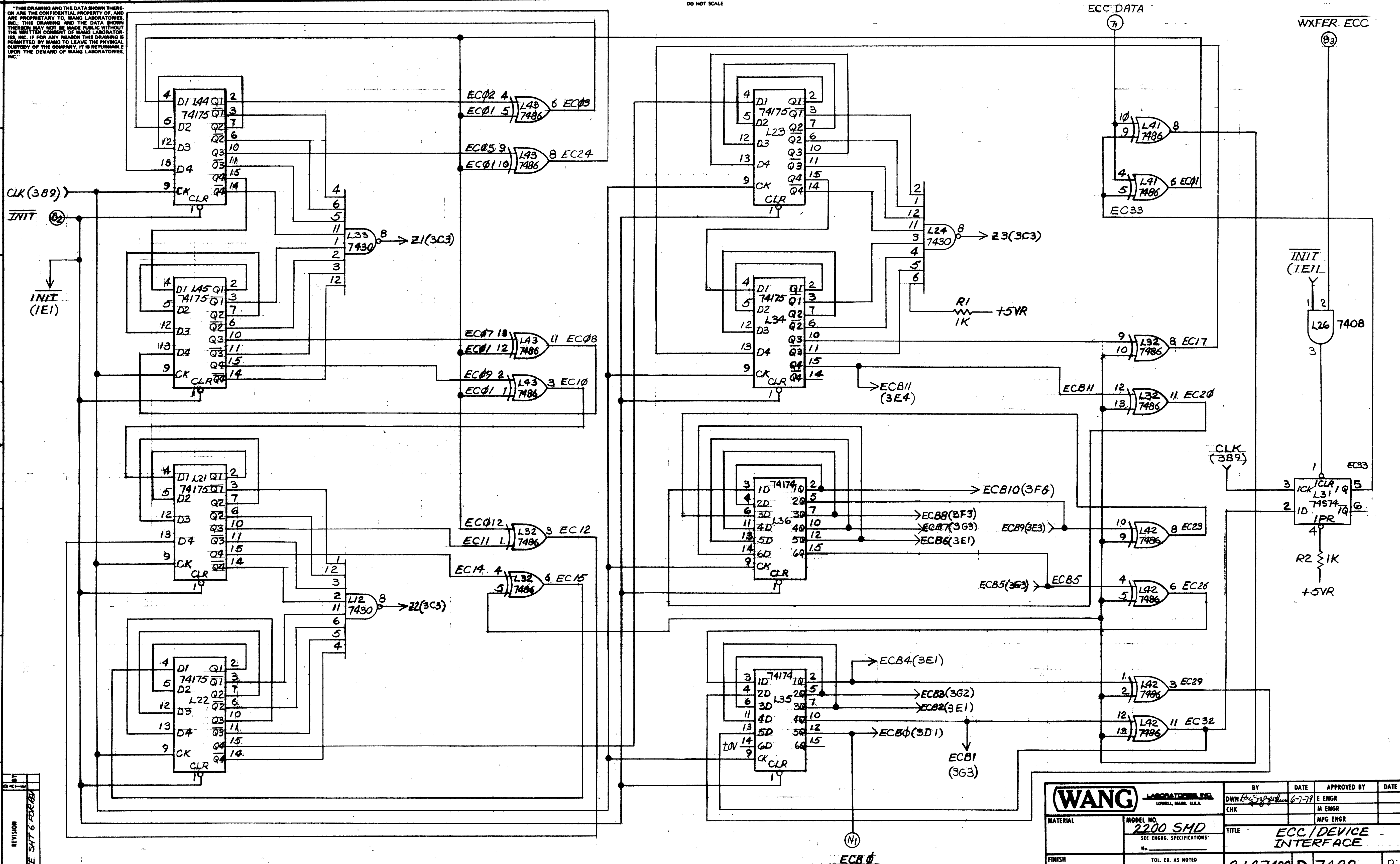
TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH √

SCALE SHT 4 OF 4

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7421	D	7421	7

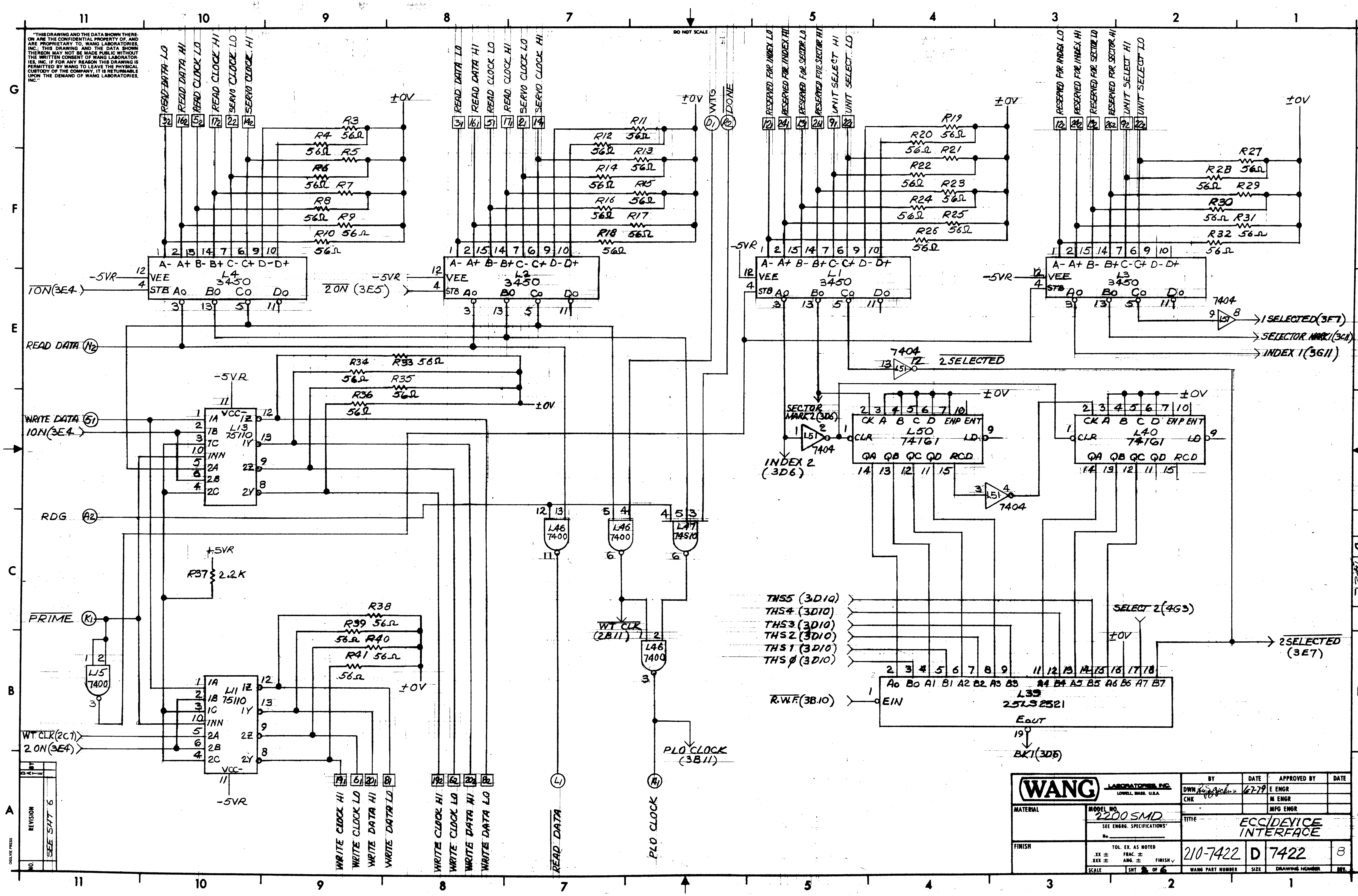
D 7421

DO NOT SCALE



REVISION: SEE SHT 6 FOR REV

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.		BY	DATE	APPROVED BY / DATE
MATERIAL	MODEL NO. 2200 SMD SEE ENGRG. SPECIFICATIONS No.	DWN Szegedhu	6-7-79	E ENGR
		CHK		M ENGR
				MFG ENGR
FINISH	TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH ✓	TITLE ECC/DEVICE INTERFACE		
	SCALE SHT 1 OF 6	WANG PART NUMBER 210-7422	SIZE D	DRAWING NUMBER 7422 REV. 8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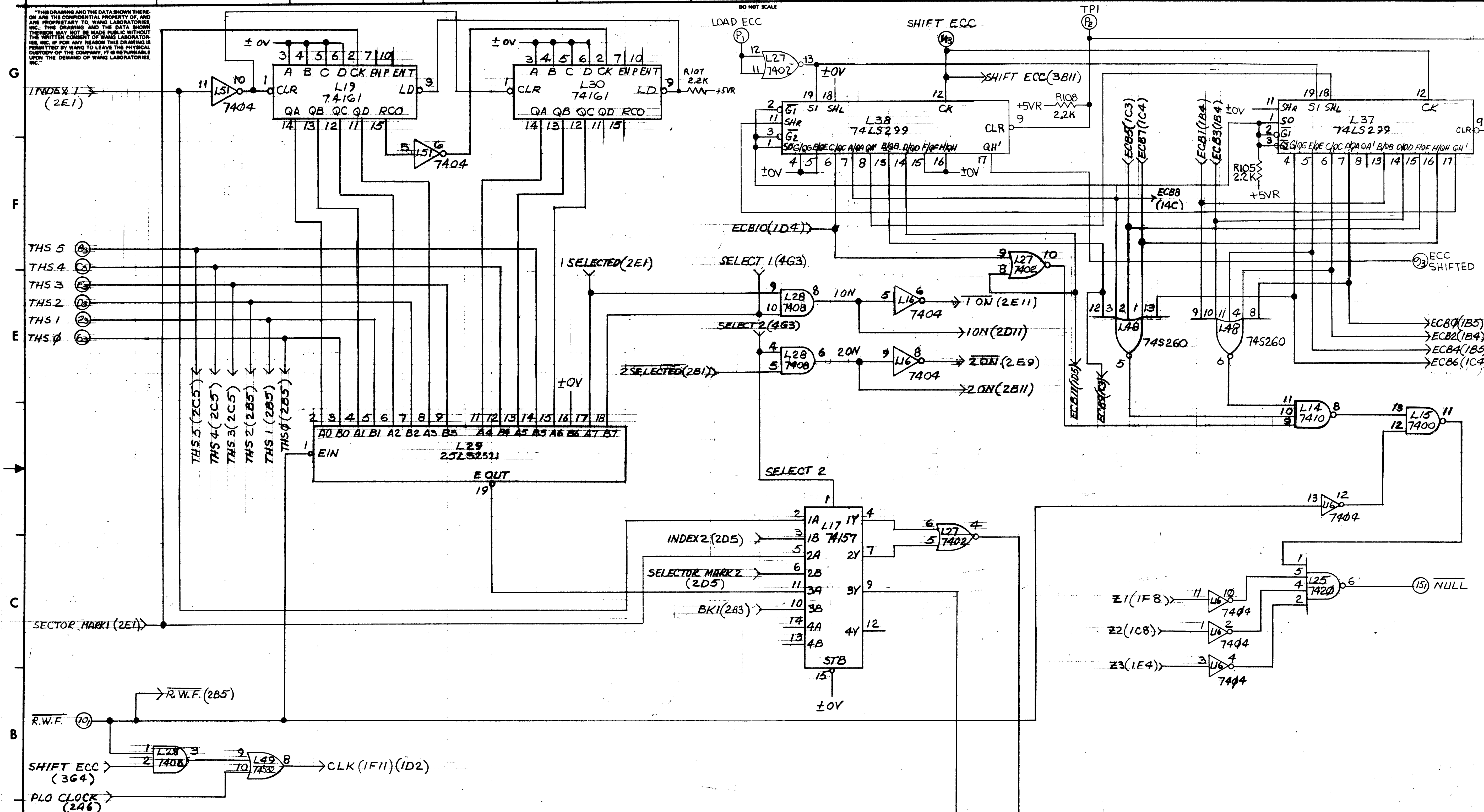
DO NOT SCALE
READ DATA LO
READ DATA HI
READ CLOCK LO
READ CLOCK HI
SERVO CLOCK LO
SERVO CLOCK HI
WTG
DONE
RESERVED FOR INDEX LO
RESERVED FOR INDEX HI
RESERVED FOR SECTOR LO
RESERVED FOR SECTOR HI
UNIT SELECT HI
UNIT SELECT LO
±0V
-5VR
+5VR
L4 3450
L2 3450
L1 3450
L3 3450
1ON (3E4)
2ON (3E5)
READ DATA
WRITE DATA
ION (3E4)
RDG
PRIME
L13 75110
L11 75110
L15 7400
L46 7400
L47 74S10
R37 2.2K
56Ω
7404
1 SELECTED (3F7)
SELECTOR MARK 1 (3C11)
INDEX 1 (3G11)
2 SELECTED
SECTOR MARK 2 (3D6)
INDEX 2 (3D6)
L50 74161
L40 74161
CK A B C D ENP ENT
CLR
LD
QA QB QC QD RCD
WT CLK (2B11)
WT CLK (2C7)
2 ON (3E4)
PLO CLOCK (3B11)
THS5 (3D10)
THS4 (3D10)
THS3 (3D10)
THS2 (3D10)
THS1 (3D10)
THSØ (3D10)
SELECT 2 (4G3)
2 SELECTED (3E7)
R.W.F. (3B.10)
L39 25LS2521
EIN
EOUT
BK1 (3D6)
WRITE CLOCK HI
WRITE CLOCK LO
WRITE DATA HI
WRITE DATA LO
READ DATA
PLO CLOCK
REVISION
SEE SHT 6
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MATERIAL
FINISH
MODEL NO. 2200 SMD
SEE ENGRG. SPECIFICATIONS
DWN 6-7-79
CHK
E ENGR
M ENGR
MFG ENGR
TITLE ECC/DEVICE INTERFACE
210-7422
D
7422
8
WANG PART NUMBER
SIZE
DRAWING NUMBER
REV.
SCALE
SHT 2 OF 6


DO NOT SCALE
LOAD ECC
SHIFT ECC
TP1
INDEX 1 (2E1)
L51 7404
L19 74161
L30 74161
R107 2.2K +5VR
L27 7402
SHIFT ECC (3B11)
L38 74LS299
R108 2.2K
L37 74LS299
R105 2.2K
+5VR
ECB5(1C3)
ECB7(1C4)
ECB1(1B4)
ECB3(1B4)
ECB8 (14C)
ECB10(1D4)
ECC SHIFTED
THS 5
THS 4
THS 3
THS 2
THS 1
THS Ø
1 SELECTED(2E1)
SELECT 1 (4G3)
L28 7408
1ON
L16 7404
1 ON (2E11)
1ON (2D11)
SELECT 2(4G3)
2ON
2SELECTED(2B1)
2ON (2E9)
2ON (2B11)
L48 74S260
ECB0(1B5)
ECB2(1B4)
ECB4(1B5)
ECB6(1C4)
ECB11(1D5)
ECB9(1C5)
L14 7410
L15 7400
L29 25LS2521
EIN
E OUT
THS 5 (2C5)
THS 4 (2C5)
THS 3 (2C5)
THS 2 (2B5)
THS 1 (2B5)
THSØ (2B5)
SELECT 2
L17 74157
STB
INDEX2 (2D5)
SELECTOR MARK 2 (2D5)
BK1(2B3)
L27 7402
L25 7420
NULL
Z1(1F8)
Z2(1C8)
Z3(1F4)
SECTOR MARK1 (2E1)
R.W.F. (2B5)
R.W.F.
SHIFT ECC (364)
PLO CLOCK (2A6)
L28 7408
L49 74S32
CLK (1F11)(1D2)
EQUALS
SORT
±0V
D 7422

REVISION	
SEE SHT 6	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	[illegible]	6-7-79	E ENGR	
CHK			M ENGR	
			MFG ENGR	

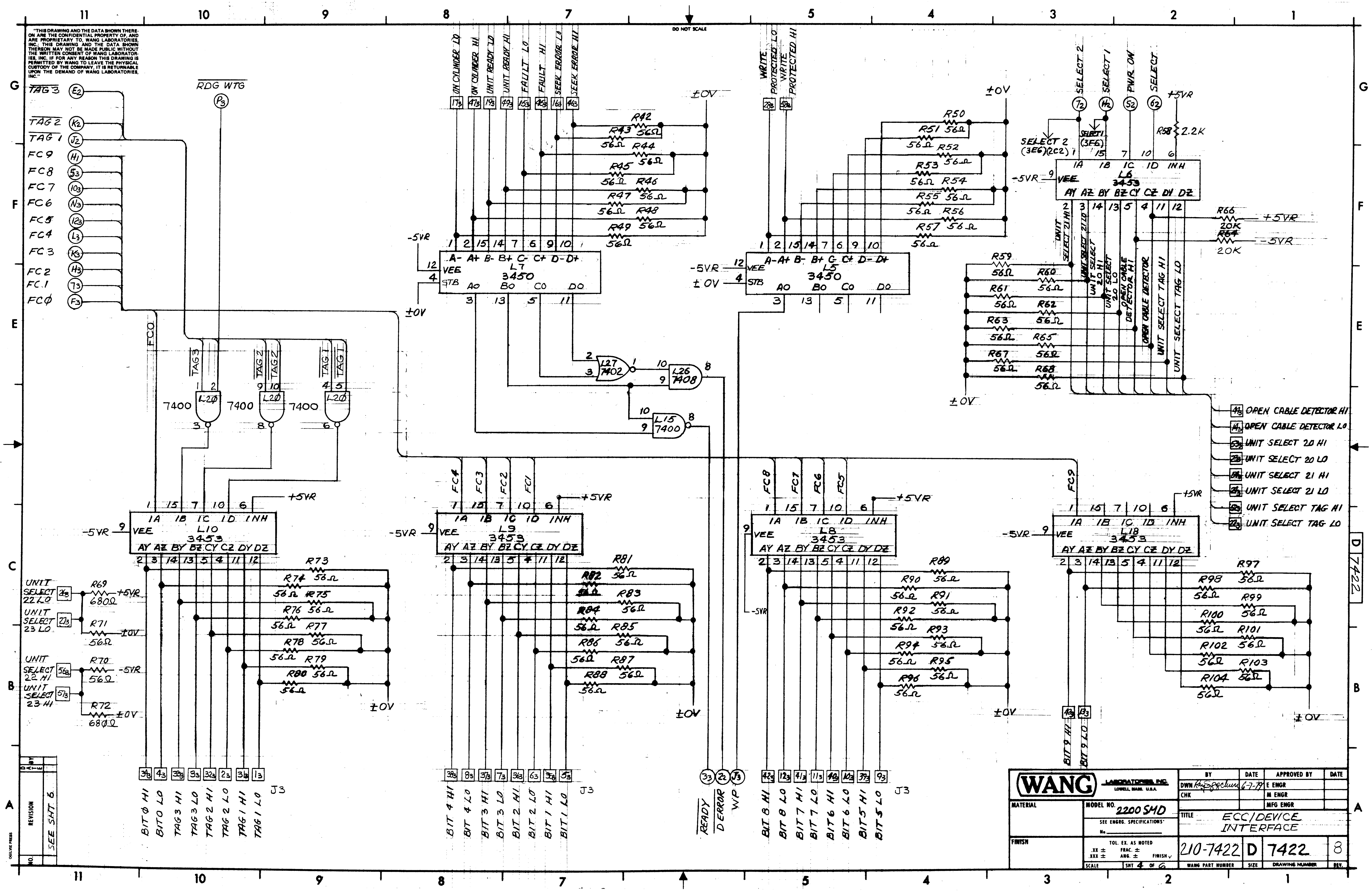
MODEL NO. 2200 SMD — SEE ENGRG. SPECIFICATIONS

TITLE: ECC/DEVICE INTERFACE

TOL. EX. AS NOTED

SHT 3 OF 6

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7422	D	7422	8



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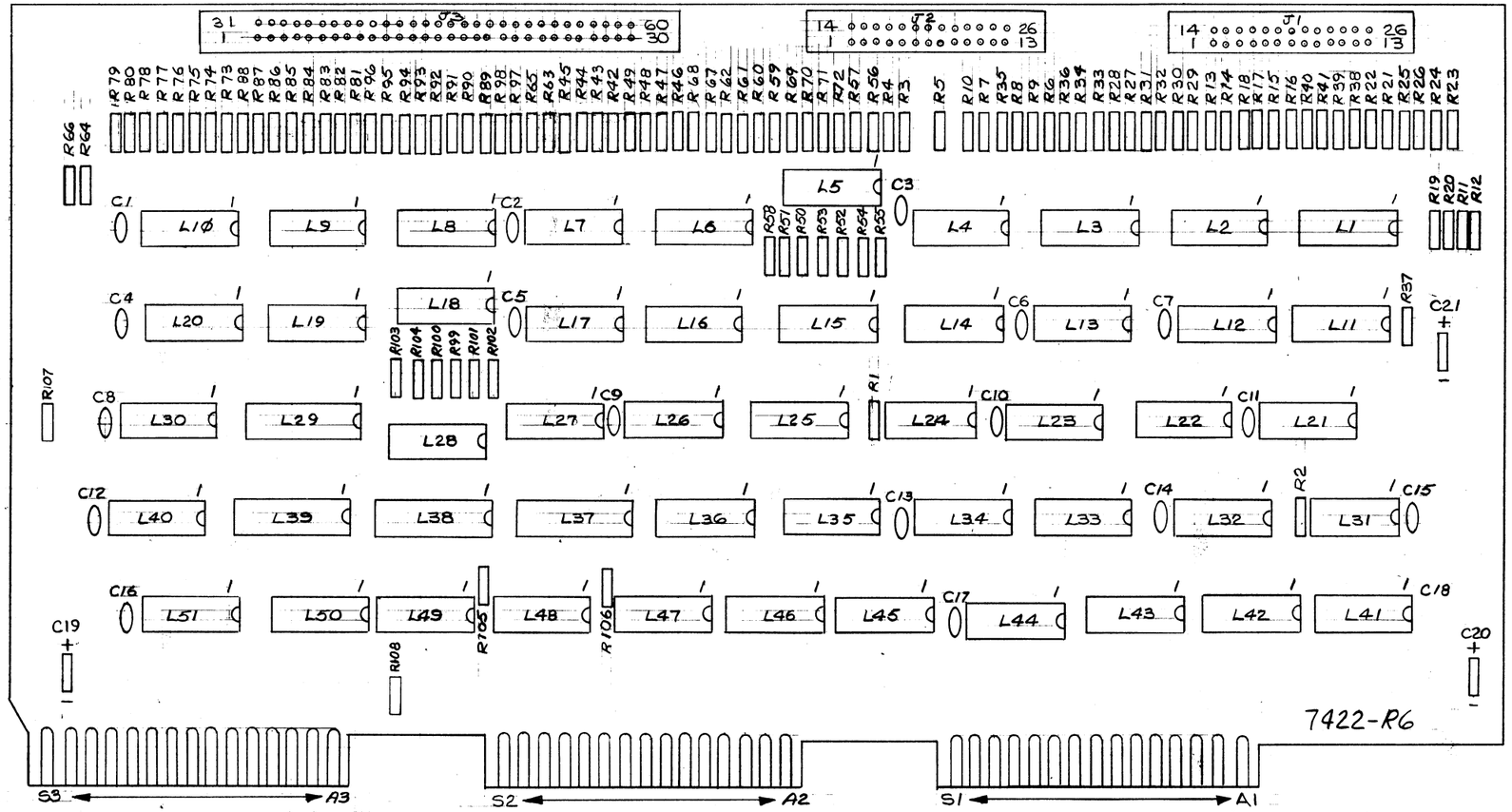
DO NOT SCALE
TAG 3
TAG 2
TAG 1
FC9
FC8
FC7
FC6
FC5
FC4
FC3
FC2
FC1
FCØ
RDG WTG
ON CYLINDER LO
ON CYLINDER HI
UNIT READY LO
UNIT READY HI
FAULT LO
FAULT HI
SEEK ERROR LO
SEEK ERROR HI
WRITE PROTECTED LO
WRITE PROTECTED HI
SELECT 2
SELECT 1
PWR. ON
SELECT
L7 3450
L5 3450
L6 3453
L10 3453
L9 3453
L8 3453
L18 3453
L27 7402
L26 7408
L15 7400
L20 7400
OPEN CABLE DETECTOR HI
OPEN CABLE DETECTOR LO
UNIT SELECT 20 HI
UNIT SELECT 20 LO
UNIT SELECT 21 HI
UNIT SELECT 21 LO
UNIT SELECT TAG HI
UNIT SELECT TAG LO
UNIT SELECT 22 LO
UNIT SELECT 23 LO
UNIT SELECT 22 HI
UNIT SELECT 23 HI
BIT Ø HI
BIT Ø LO
TAG 3 HI
TAG 3 LO
TAG 2 HI
TAG 2 LO
TAG 1 HI
TAG 1 LO
BIT 4 HI
BIT 4 LO
BIT 3 HI
BIT 3 LO
BIT 2 HI
BIT 2 LO
BIT 1 HI
BIT 1 LO
READY
D ERROR
WP
BIT 8 HI
BIT 8 LO
BIT 7 HI
BIT 7 LO
BIT 6 HI
BIT 6 LO
BIT 5 HI
BIT 5 LO
BIT 9 HI
BIT 9 LO
J3
REVISION
SEE SHT 6
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
DWN 6-7-79
MODEL NO. 2200 SMD
TITLE ECC/DEVICE INTERFACE
SHT 4 OF 6
210-7422 D 7422 8

DO NOT SCALE



REVISION	BY	DATE
SEE SHT. 6		

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN		6-7-77	E ENGR	
CHK			M ENGR	
			MFG ENGR	

MATERIAL

MODEL NO. 2200 SMD
SEE ENGRG. SPECIFICATIONS
No.

TITLE ECC/DEVICE INTERFACE

FINISH

TOL. EX. AS NOTED
.XX ± FRAC. ±
.XXX ± ANG. ± FINISH √

SCALE SHT 5 OF 6

210-7422	D	7422	3
WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.

D 7422

DO NOT SCALE

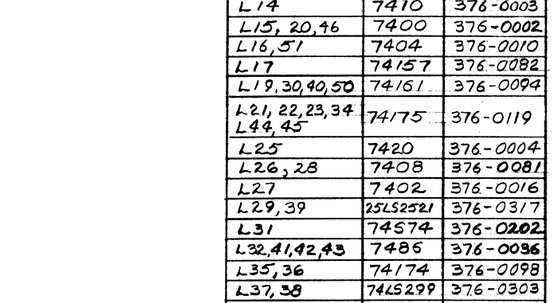
IC. LOCATION	TYPE	W.L. NO.
L1,2,3,4,5,7	3450	376-0275
L6,8,9,10,18	3453	376-0274
L11,13	75110	376-0255
L12,24,33	7430	376-0031
L14	7410	376-0003
L15, 20,46	7400	376-0002
L16,51	7404	376-0010
L17	74157	376-0082
L19,30,40,50	74161	376-0094
L21, 22,23,34 L44, 45	74175	376-0119
L25	7420	376-0004
L26, 28	7408	376-0081
L27	7402	376-0016
L29, 39	25LS2521	376-0317
L31	74S74	376-0202
L32,41,42,43	7486	376-0036
L35, 36	74174	376-0098
L37, 38	74LS299	376-0303
L47	74S10	376-0238
L48	74S260	376-0206
L49	74S32	376-0205

LOCATION	TYPE	SPARES
L1	3450	1
L2	3450	1
L3	3450	1
L4	3450	1
L5	3450	3
L14	7410	2
L15	7400	1
L20	7400	1
L25	7420	1
L26	7408	2
L27	7402	1
L28	7408	1
L31	74S74	1
L41	7486	2
L46	7400	1
L47	74S10	2
L49	74S32	3

COMPONENT	TYPE	W.L. NO.
R1, R2	1K, 1/4 10%	330-3010
R37, 58, 105, 106, 107, 108	2.2K 1/4W 10%	330-3022
R64,66,	20K, 1/4W 10%	330-4020
R69, 72	680Ω, 1/4W 1%	330-2068
R3-36 R38-57, R59-63 65, 67, 68, 70, 71, 73-104	56Ω 1/4W 10%	330-1056
C1-C18	.047UF 50V	300-1966
C19, 21	15UF 20V TA	300-4022
J1, 2	26 PIN CONN	350-0058
J3	60 PIN CONN	350-0057

MNEMONIC	COORD
BIT 0-9 LO	4A7
BIT 0-9 HI	4A7
BONE	2G6
DERROR	4A6
ECBØ	1B8
ECC DATA	1G3
ECC SHIFTED	3E1
EQUALS	3A4
FAULT HI	4G7
FAULT LO	4G7
FCØ-FC9	4F11
INIT	1F11
NULL	3C1
LOAD ECC	3G5
NULL	3C1
ON CYLINDER HI	4G8
ON CYLINDER LO	4G8
OPEN CABLE DETECTOR HI	4D1
OPEN CABLE DETECTOR LO	4D1
PLO CLOCK	2A6
PRIME	2C11
PWR ON	4G2
RDG	2C11
RDG-WTG	4G10
READ CLOCK HI	2G7,2G10
READ CLOCK LO	2G8,2G10
READ DATA	2A7
READ DATA HI	2E11
READ DATA LO	2G8,2G10
READY	4A6
RESERVED FOR INDEX HI	2G5

MNEMONIC	COORD
RESERVED FOR INDEX LO	2G5
R.W.F	3B11
RESERVED FOR SECTOR HI	2G3,2G5
RESERVED FOR SECTOR LO	2G3,2G5
SEEK ERROR HI	4G7
SEEK ERROR LO	4G7
SELECT	4G2
SELECT 1,2	4G2
SERVO CLOCK HI	2G7,2G10
SERVO CLOCK LO	2G7,2G10
SHIFT ECC	3G4
SHIFTED	2G8
SORI	3A4
TAG1-3	4G11
TAG1-3 HI	4A10
TAG1-3 LO	4A10
THSØ-5	3E11
TPI	3G3
UNIT SELECT 20-21 HI,LO	4D2
UNIT SELECT 22,23 HI,LO	4D11
UNIT SELECT TAG HI,LO	4D1
UNIT READY HI,LO	4G8
WXFER ECC	1G1
WRITE CLOCK HI	2A8,2A9
WRITE CLOCK LO	2A8,2A9
WRITE DATA	2D11
WRITE DATA HI	2A8
WRITE DATA LO	2A8
WRITE PROTECTED HI,LO	4G5
WP	4A6
WTG	2G6



J1

GROUND	1	14	SERVO CLOCK HI
SERVO CLOCK LO	2	15	GROUND
READ DATA LO	3	16	READ DATA HI
GROUND	4	17	READ CLOCK HI
READ CLOCK LO	5	18	GROUND
WRITE CLOCK LO	6	19	WRITE CLOCK HI
GROUND	7	20	WRITE DATA HI
WRITE DATA LO	8	21	GROUND
UNIT SELECT HI	9	22	UNIT SELECT LO
	10	23	
GROUND	11	24	RESERVED FOR INDEX HI
RESERVED FOR INDEX LO	12	25	GROUND
RESERVED FOR SECTOR LO	13	26	RESERVED FOR SECTOR HI

J2

GROUND	1	14	SERVO CLOCK HI
SERVO CLOCK LO	2	15	GROUND
READ DATA LO	3	16	READ DATA HI
GROUND	4	17	READ CLOCK HI
READ CLOCK LO	5	18	GROUND
WRITE CLOCK LO	6	19	WRITE CLOCK HI
GROUND	7	20	WRITE DATA HI
WRITE DATA LO	8	21	GROUND
UNIT SELECT HI	9	22	UNIT SELECT LO
	10	23	
GROUND	11	24	RESERVED FOR INDEX HI
RESERVED FOR INDEX LO	12	25	GROUND
RESERVED FOR SECTOR LO	13	26	RESERVED FOR SECTOR HI

J3

TAG 1 LO	1	31	TAG 1 HI
TAG 2 LO	2	32	TAG 2 HI
TAG 3 LO	3	33	TAG 3 HI
BIT Ø LO	4	34	BIT Ø HI
BIT 1 LO	5	35	BIT 1 HI
BIT 2 LO	6	36	BIT 2 HI
BIT 3 LO	7	37	BIT 3 HI
BIT 4 LO	8	38	BIT 4 HI
BIT 5 LO	9	39	BIT 5 HI
BIT 6 LO	10	40	BIT 6 HI
BIT 7 LO	11	41	BIT 7 HI
BIT 8 LO	12	42	BIT 8 HI
BIT 9 LO	13	43	BIT 9 HI
OPEN CBLE DETECTOR LO	14	44	OPEN CBLE DETECTOR HI
FAULT LO	15	45	FAULT HI
SEEK ERROR LO	16	46	SEEK ERROR HI
ON CYLINDER LO	17	47	ON CYLINDER HI
	18	48	
UNIT READY LO	19	49	UNIT READY HI
	20	50	
	21	51	
UNIT SELECT TAG LO	22	52	UNIT SELECT TAG HI
UNIT SELECT 20 LO	23	53	UNIT SELECT 20 HI
UNIT SELECT 21 LO	24	54	UNIT SELECT 21 HI
	25	55	
UNIT SELECT 22 LO	26	56	UNIT SELECT 22 HI
UNIT SELECT 23 LO	27	57	UNIT SELECT 23 HI
WRITE PROTECTED LO	28	58	WRITE PROTECTED HI
	29	59	
	30	60	

CONN 1

-5VR	A	1	-5VR
+5VR	B	2	+5VR
±0V	C	3	± 0V
WTG	D	4	
	E	5	WRITE DATA
	F	6	
FC9	H	7	ECC DATA
	J	8	
PRIME	K	9	
READ DATA	L	10	R.W.F
	M	11	
ECBØ	N	12	
LOAD ECC	P	13	
	R	14	PLO CLOCK
	S	15	NULL

CONN 2

RDG	A	1	
INIT	B	2	DERROR
	C	3	
	D	4	SORI
TAG 3	E	5	
	F	6	SELECT
SELECT	H	7	SELECT 2
TAG 1	J	8	
TAG 2	K	9	
	L	10	
	M	11	
READ DATA	N	12	
TPI	P	13	EQUALS
DONE	R	14	
PWR ON	S	15	

CONN 3

	A	1	
THS 5	B	2	THS 1
THS 4	C	5	READY
THS 2	D	4	
THS 3	E	5	FC 8
FCØ	F	5	THS Ø
FC2	H	7	FC1
WP	J	8	WXFER ECC
FC3	K	9	ECC SHIFTED
FC4	L	10	FC 7
SHIFT ECC	M	11	
FC6	N	12	FC 5
RDG-WTG	P	13	
±0V	R	14	±0V
+5VR	S	15	+5VR

COMP SIDE — WIRING SIDE

E-REV 4

BY	DATE	REVISION	NO.
R.S.	6-7-79	ORIGINATED PER DWR E 5427 APP'D: [illegible] 7279	0
R.S.	6-7-79	REVISED PER ECN # 10865 APP'D: [illegible] 7279	1
R.S.	6-7-79	REVISED PER ECN #11170 APP'D: [illegible] 7279	2
R.S.	6-7-79	REVISED PER ECN 11587 APP'D: [illegible] 7279	3
E.S.	6-7-79	REVISED PER ECN 11638 APP'D: [illegible] 7279	4
A.B	10-2-79	REVISED PER ECN 12283 APP'D: [illegible] 10-2-79	5
S.D.B.	9-22-80	REVISED PER ECN 14564 APP'D: [illegible] 9-22-80	6
A.K.	3-16-81	REVISED PER ECO #10092 APP'D: [illegible] 3-16-81	7
S.D.B.	9/21/81	REVISED PER ECO #10310 APP'D: [illegible] 9/21/81	8

	BY	DATE	APPROVED BY	DATE
DWN	[illegible]	6-7-79	E ENGR M. GREER	7-2-79
CHK	[illegible]	7-2-79	M ENGR	
			MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL

MODEL NO. 2200 SMD
SEE ENGRG. SPECIFICATIONS
No.

FINISH

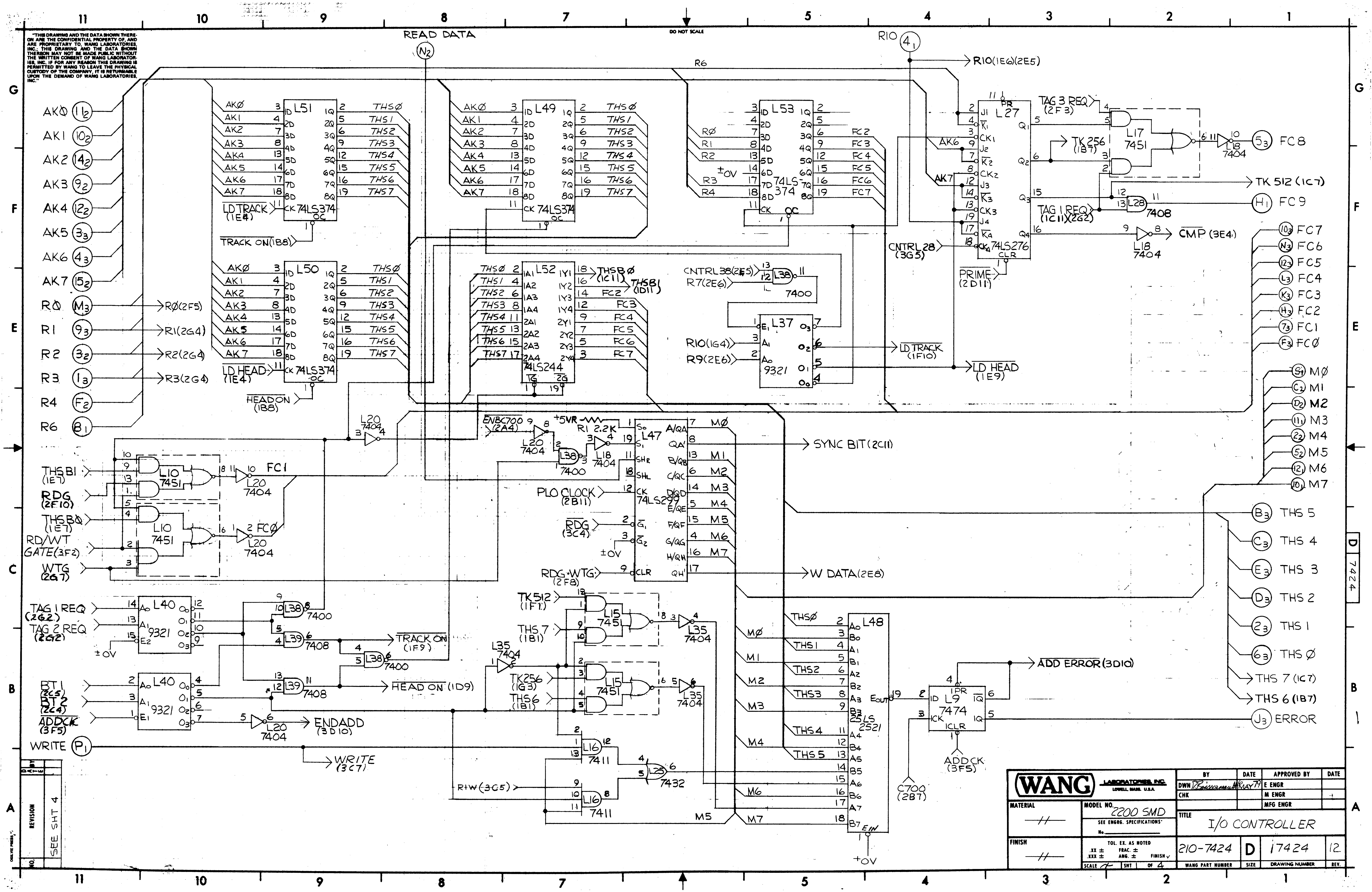
TOL. EX. AS NOTED
.XX ± FRAC. ±
.XXX ± ANG. ± FINISH √

TITLE ECC/DEVICE INTERFACE

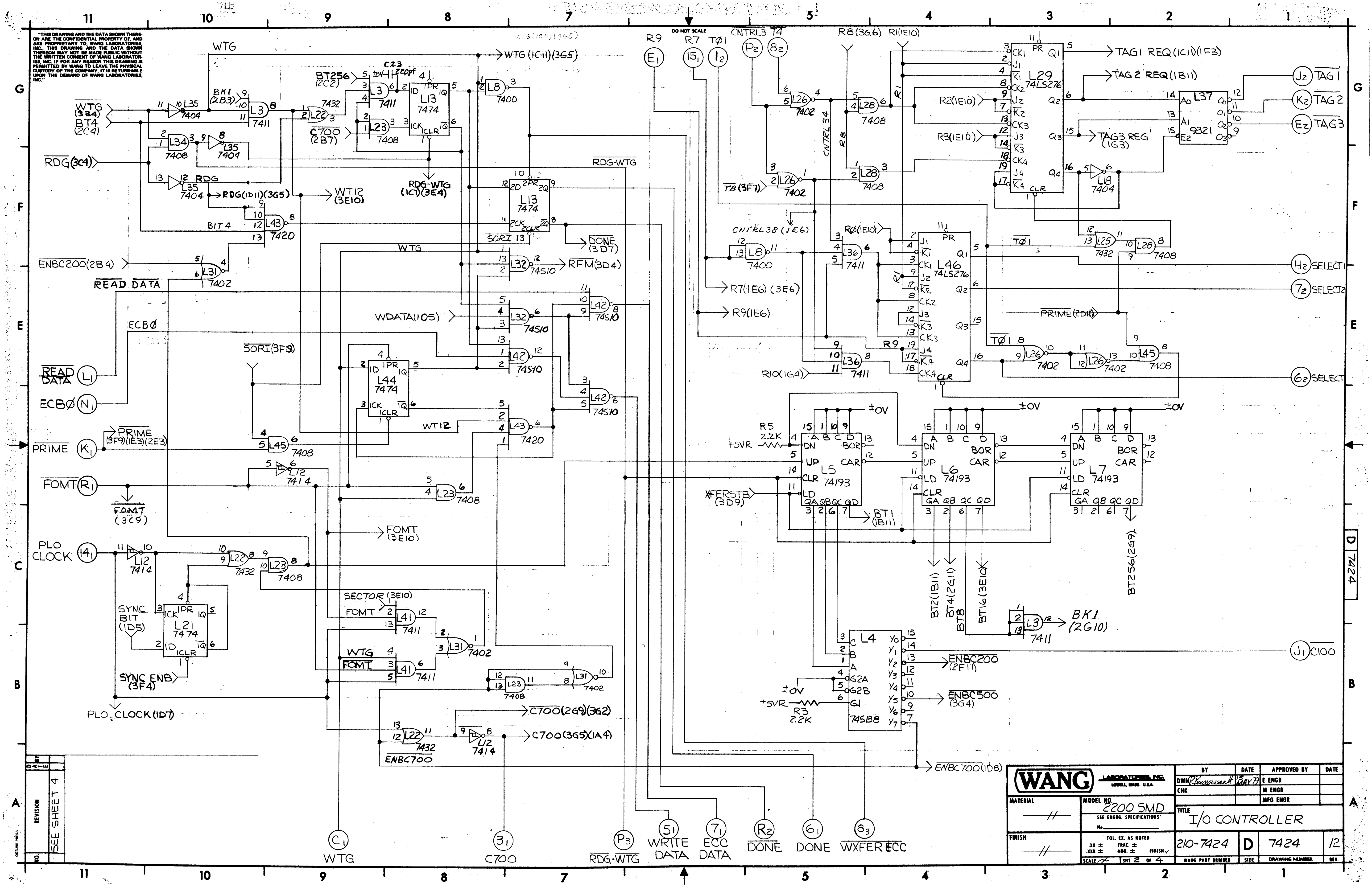
SCALE | SHT 6 OF 6

210-7422 | D | 7422 | 8
WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.

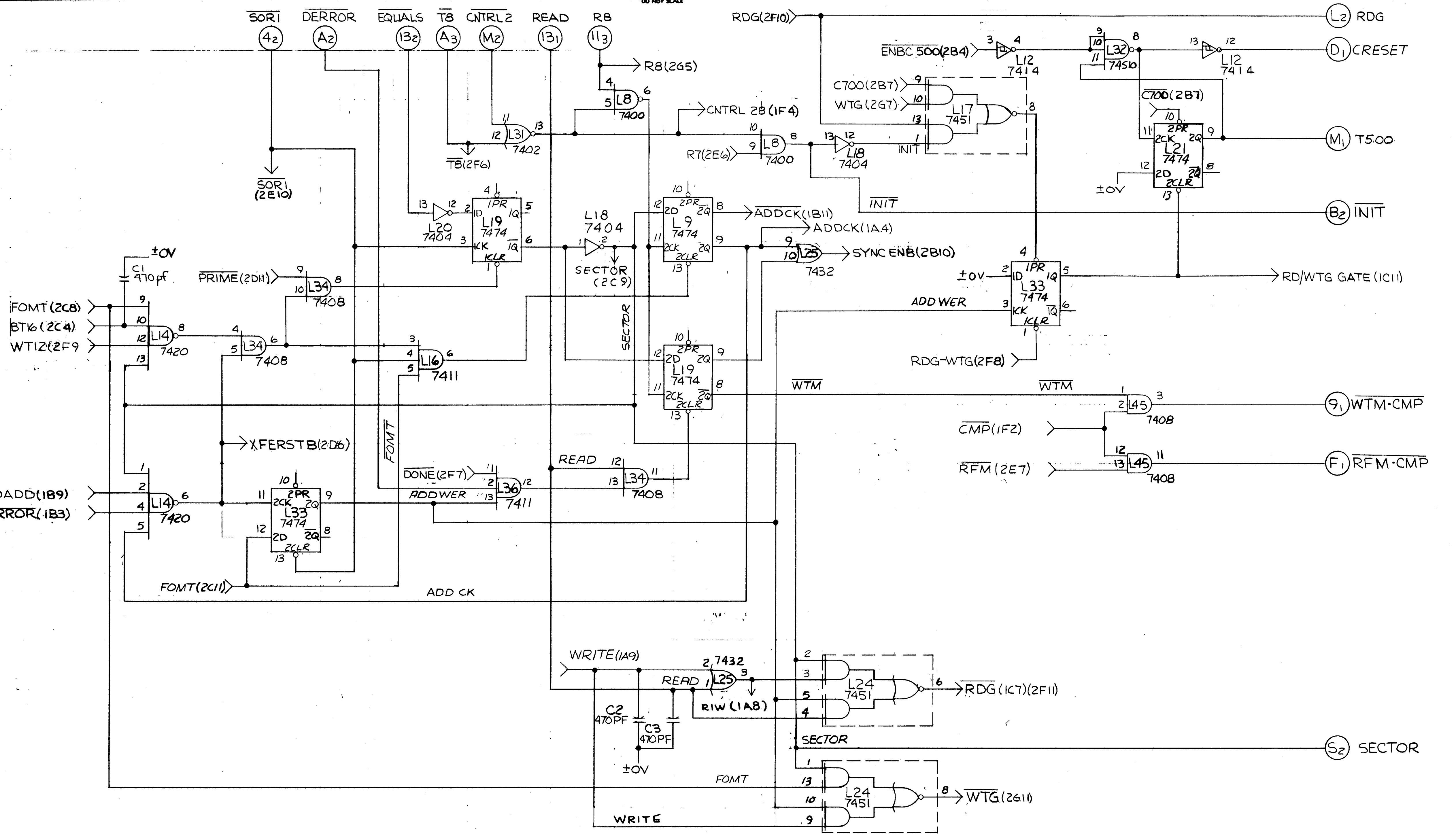
D 7422



"THIS DRAWING AND THE DATA SHOWN THEREON ARE THE CONFIDENTIAL PROPERTY OF, AND ARE PROPRIETARY TO, WANG LABORATORIES, INC. THIS DRAWING AND THE DATA SHOWN THEREON MAY NOT BE MADE PUBLIC WITHOUT THE WRITTEN CONSENT OF WANG LABORATORIES, INC. IF FOR ANY REASON THIS DRAWING IS PERMITTED BY WANG TO LEAVE THE PHYSICAL CUSTODY OF THE COMPANY, IT IS RETURNABLE UPON THE DEMAND OF WANG LABORATORIES, INC."
DO NOT SCALE
READ DATA
R10
L51 74LS374
L49 74LS374
L53 74LS374
L27 74LS276
L17 7451
L50 74LS374
L52 74LS244
L37 9321
L47 74LS299
L10 7451
L20 7404
L40 9321
L38 7400
L39 7408
L15 7451
L35 7404
L16 7411
L25 7432
L48 25LS2521
L9 7474
L18 7404
L28 7408
SYNC BIT (2C11)
W DATA (2E8)
ADD ERROR (3D10)
ENDADD (3D10)
TRACK ON (1F9)
HEAD ON (1D9)
LD TRACK (1F10)
LD HEAD (1E9)
TK 512 (1C7)
CMP (3E4)
WRITE (3C7)
PLO CLOCK (2B11)
RD/WT GATE (3F2)
FC8
FC9
FC7
FC6
FC5
FC4
FC3
FC2
FC1
FCØ
MØ
M1
M2
M3
M4
M5
M6
M7
THS 5
THS 4
THS 3
THS 2
THS 1
THS Ø
THS 7 (1C7)
THS 6 (1B7)
ERROR
WRITE
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MODEL NO. 2200 SMD
TITLE I/O CONTROLLER
210-7424
D
17424
12
SCALE
SHT 4 OF 4
REVISION
SEE SHT 4


"THIS DRAWING AND THE DATA SHOWN THEREON ARE THE CONFIDENTIAL PROPERTY OF, AND ARE PROPRIETARY TO, WANG LABORATORIES, INC.; THIS DRAWING AND THE DATA SHOWN THEREON MAY NOT BE MADE PUBLIC WITHOUT THE WRITTEN CONSENT OF WANG LABORATORIES, INC. IF FOR ANY REASON THIS DRAWING IS PERMITTED BY WANG TO LEAVE THE PHYSICAL CUSTODY OF THE COMPANY, IT IS RETURNABLE UPON THE DEMAND OF WANG LABORATORIES, INC."
DO NOT SCALE
WTG
WTG (3B4)
BT4 (2C4)
RDG (3C4)
ENBC200 (2B4)
READ DATA
ECBØ
SORI (3F3)
PRIME
FOMT
PLO CLOCK
SYNC BIT (1D5)
SYNC ENB (3F4)
PLO CLOCK (1D7)
WTG (1C11) (3G5)
RDG (1D11) (3G5)
WT12 (3E10)
RDG·WTG (1C7) (3E4)
DONE (3D7)
RFM (3D4)
WDATA (1O5)
FOMT (3E10)
SECTOR (3E10)
C700 (2G9) (3G2)
C700 (3G5) (1A4)
ENBC700
TAG1 REQ (1C11) (1F3)
TAG 2 REQ (1B11)
TAG3 REQ (1G3)
TAG 1
TAG 2
TAG 3
SELECT 1
SELECT 2
SELECT
PRIME (2D11)
R7 (1E6) (3E6)
R9 (1E6)
R10 (1G4)
XFERSTB (3D9)
BT1 (1B11)
BT2 (1B11)
BT4 (2G11)
BT8
BT16 (3E10)
BT256 (2G9)
BK1 (2G10)
C100
ENBC200 (2F11)
ENBC500 (3G4)
ENBC700 (1D8)
WTG
C700
RDG·WTG
WRITE DATA
ECC DATA
DONE
DONE
WXFER ECC
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MODEL NO. 2200 SMD
TITLE I/O CONTROLLER
210-7424
D
7424
12
SHT 2 OF 4
SEE SHEET 4
REVISION

DO NOT SCALE


SORI
DERROR
EQUALS
T8
CNTRL2
READ
R8
R8(2G5)
SORI (2E10)
T8(2F6)
CNTRL 28 (1F4)
R7(2E6)
RDG(2F10)
ENBC 500(2B4)
C700(2B7)
WTG(2G7)
INIT
L12 7414
L32 74S10
L17 7451
L18 7404
L8 7400
L31 7402
L21 7474
C700(2B7)
RDG
CRESET
T500
INIT
±0V
L19 7474
L20 7404
L18 7404
SECTOR (2C9)
L9 7474
ADDCK(1B11)
ADDCK(1A4)
SYNC ENB(2B10)
L25 7432
RD/WTG GATE (1C11)
ADD WER
L33 7474
RDG-WTG(2F8)
C1 470pf
PRIME(2D11)
L34 7408
FOMT(2C8)
BT16(2C4)
WT12(2F9)
L14 7420
L16 7411
SECTOR
WTM
L45 7408
WTM·CMP
CMP(1F2)
RFM(2E7)
RFM·CMP
XFERSTB(2D6)
FOMT
READ
DONE(2F7)
L36 7411
ADDWER
L34 7408
ENDADD(1B9)
ADD ERROR(1B3)
L33 7474
FOMT(2C11)
ADD CK
WRITE(1A9)
L25 7432
READ
C2 470PF
C3 470PF
±0V
RIW (1A8)
L24 7451
RDG (1C7)(2F11)
SECTOR
SECTOR
FOMT
L24 7451
WTG(2G11)
WRITE

D 7424

NO.	REVISION	DATE	BY
	SEE SHEET 4		

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	P. Bussanvault	13 MAY 79	E ENGR	
CHK			M ENGR	
			MFG ENGR	

MATERIAL: —//—

MODEL NO. 2200SMD — SEE ENGRG. SPECIFICATIONS

TITLE: I/O CONTROLLER

FINISH: —//—

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH √

SCALE —/— SHT 3 OF 4

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7424	D	7424	12

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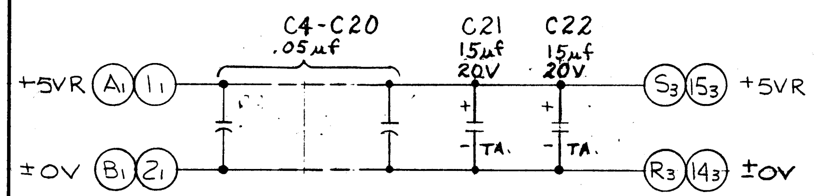
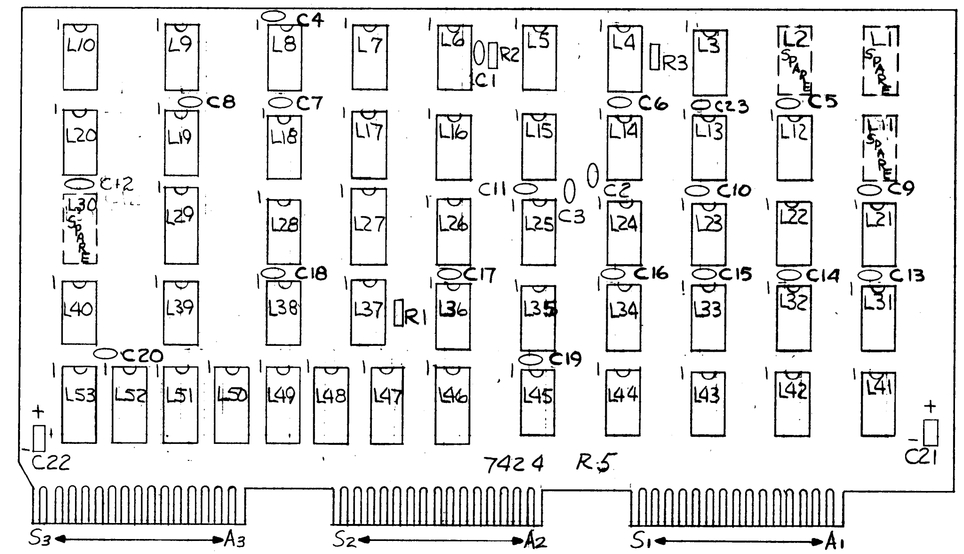
DO NOT SCALE

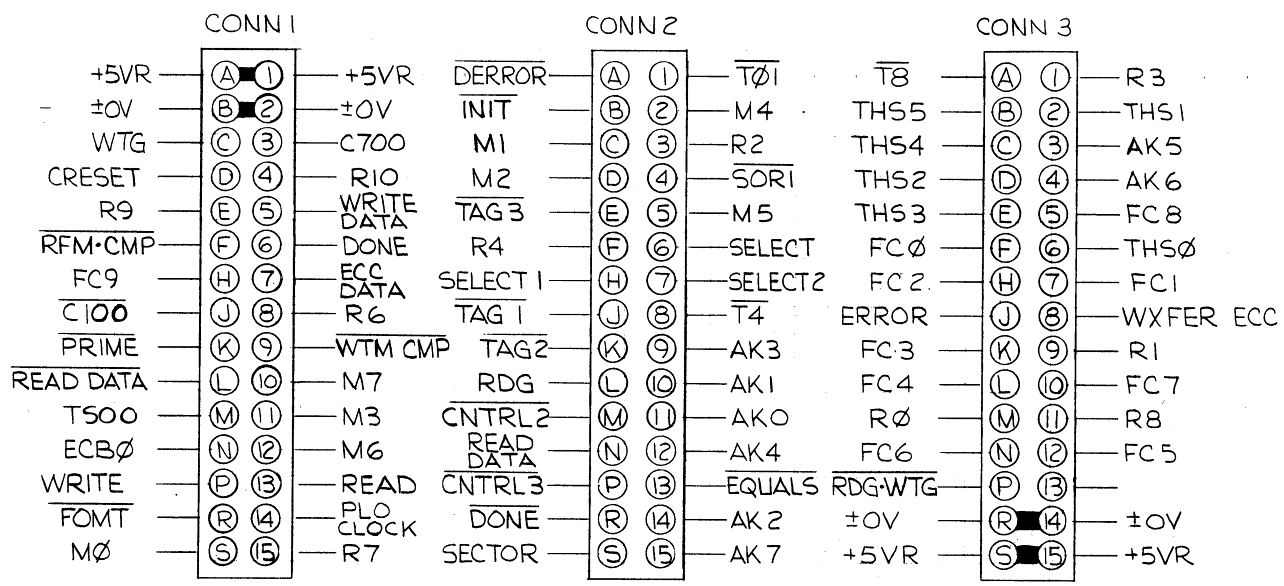
COMPONENT	WLI NO.	TYPE
C23	300-1220	220pf, 500v
C1, C2, C3	300-1470	470 pf, 500V
C4 - C20	300-1900	.05μf, 12VDC
C21, C22	300-4022	15μf, 20V
R1, R2, R3	330-3022	2.2K, 1/4W 10%

LOCATION	WL PART NO	TYPE
L3, L16, L36, L41	376-0194	7411
L4	376-0298	74S138
L5, L6, L7	376-0053	74193
L10, L17, L15, L24	376-0012	7451
L18, L20, L35	376-0010	7404
L9, L13, L19, L21, L33, L44	376-0006	7474
L14, L43	376-0004	7420
L12	376-0139	7414
L22, L25	376-0093	7432
L23, 28, 34, 39, 45	376-0081	7408
L26, L31	376-0016	7402
L27, L29, L46	376-0318	74276
L32, L42	376-0238	74S10
L37, L40	376-0096	9321
L8, L38	376-0002	7400
L47	376-0303	74LS299
L48	376-0317	25LS2521
L49, L50, L51, L53	376-0286	74LS374
L52	376-0288	74LS244
L1, L2, L11, L30	SPARE	

TYPE	LOCATION	SPARES
7432	L22	1
7414	L12	1
7408	L39	2
7411	L41	1
7474	L44	1







MNEMONIC	COORDINATE
AKØ-AK7	1F11
CNTRL2	3G7
CNTRL3	2G5
CRESET	3G1
C100	2B1
C700	2A7
DERROR	3G8
DONE	2A5
DONE	2A5
ECBØ	2D11
ECC DATA	2A6
EQUALS	3G8
ERROR	1B1
FCØ-FC9	1E1
FOMT	2D11
INIT	3F1
MØ-M7	1D1
PLO CLOCK	2C11
PRIME	2D11
RDG	3G1
RDG·WTG	2A6
READ	3G7
READ DATA	1G8
READ DATA	2E11
RØ-R4, R6	1E11
RFM·CMP	3D1
R7	2G6
R8	3G6
R9	2G5

MNEMONIC	COORDINATE
R10	1G4
SECTOR	3B1
SELECT-SELECT2	2E1
SOR1	3G9
TAG1 - TAG3	2G1
THSØ-THS5	1C1
TS00	3G1
TØ1	2G6
T4	2G6
T8	3G7
WRITE	1B11
WRITE DATA	2B6
WTG	2A9
WTM·CMP	3E1
WXFER ECC	2A4

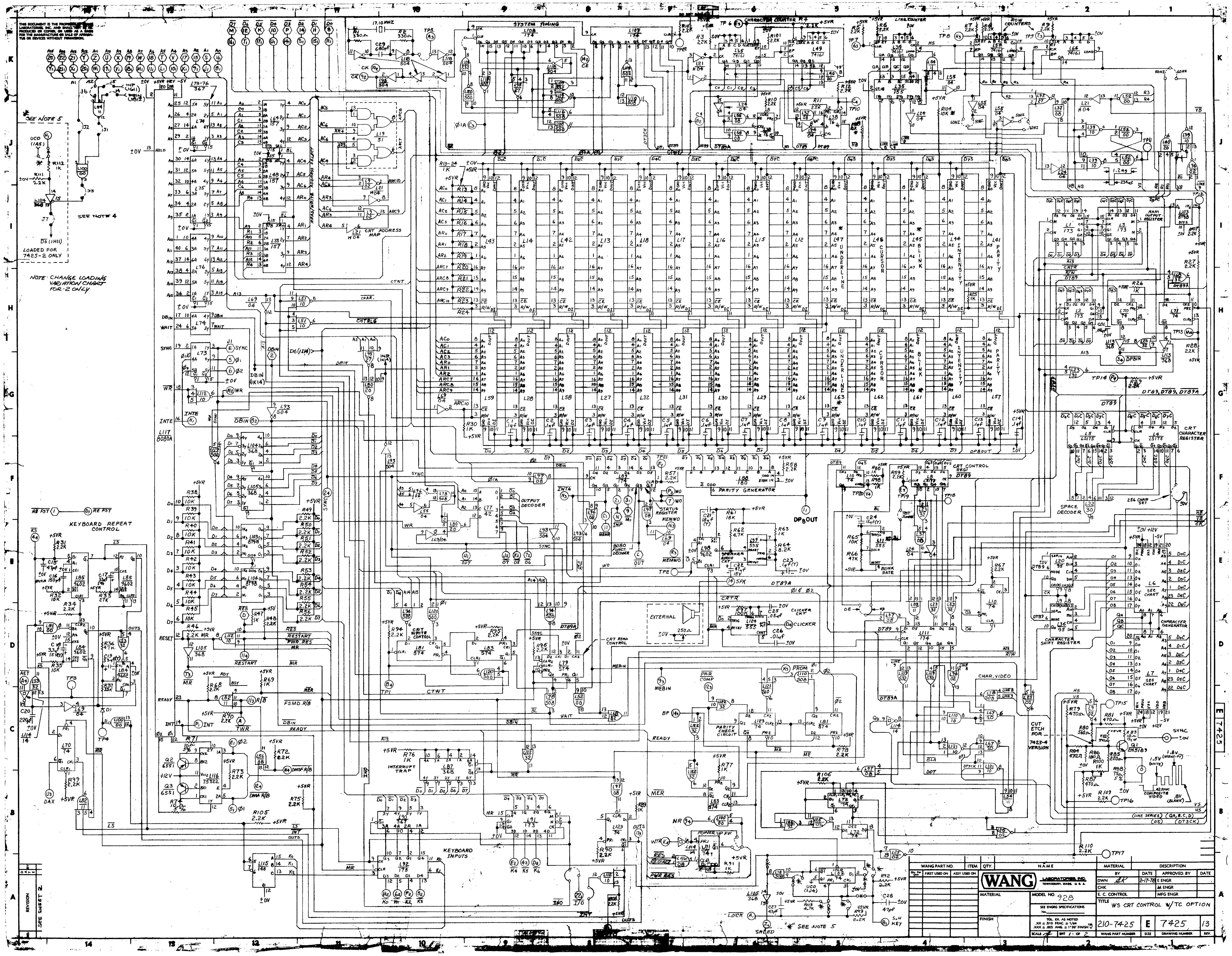
E REV. 9

NO.	REVISION	BY	DATE
0	ORIGINATED PER DWR E544 APP'D 621-79	RPB	5-17-79
1	REVISED: PER ECN# 10725 APP'D 6-21-79	RPB	5-17-79
2	REVISED PER ECN# 11117 APP'D 6-21-79	RPB	5-17-79
3	REVISED PER ECN# 11639 APP'D 6-21-79	RBB	5-17-79
4	REV. PER ECN# 11832, 12922 APP'D 6-21-79		6-12-79
5	REVISED PER ECN# 12080 APP'D 9-18-79		7-26-79
6	REVISED PER ECN# 12191 APP'D 9-18-79		7-26-79
7	REVISED PER ECN# 12231 APP'D 9-18-79		7-26-79
8	REVISED PER ECN# 12490 APP'D 9-18-79	AB	9-12-79
9	REVISED PER ECN# 12497 APP'D 9-18-79	AB	9-12-79
10	REVISED PER ECN# 14563 APP'D 3-29-80		3-29-80
11	REVISED: ECN#17206 APP'D 12-11-80	FSS	12-11-80
12	REVISED PER ECO #18094 APP'D		3-16-81

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL	— // —
FINISH	— // —
MODEL NO.	2200 SMD
SEE ENGRG. SPECIFICATIONS	
TOL. EX. AS NOTED	.XX ± .XXX ± FRAC. ± ANG. ± FINISH √
SCALE	SHT 4 OF 4
DWN	4-APR-79
CHK	6-21-79
E ENGR	M. GREER 6-21-79
M ENGR	
MFG ENGR	
TITLE	I/O CONTROLLER
WANG PART NUMBER	210-7424
SIZE	D
DRAWING NUMBER	7424
REV.	12

D 7424



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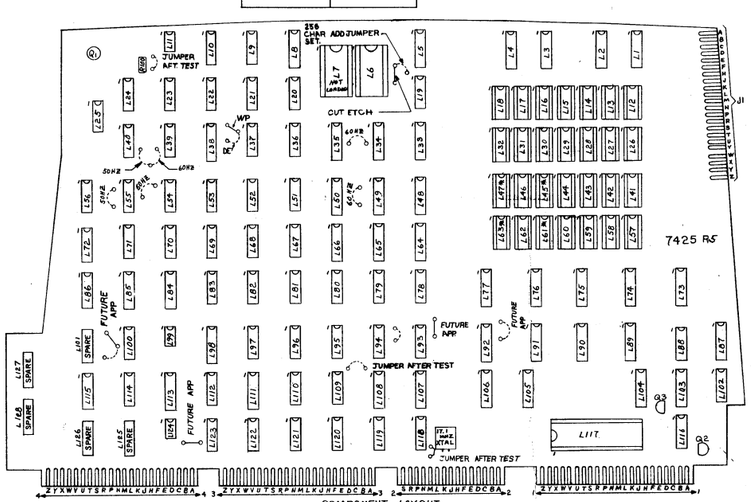
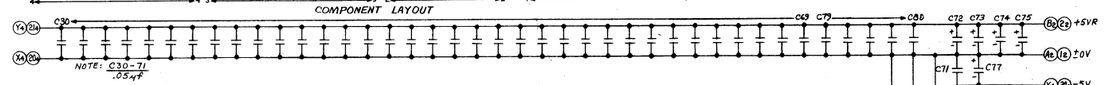
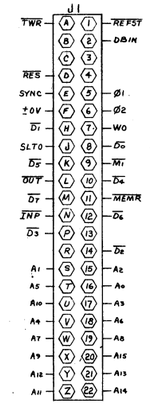
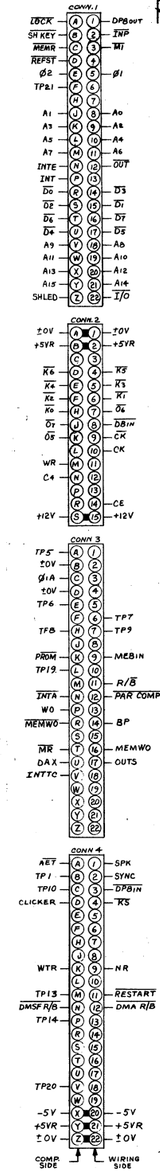
SEE NOTE 5
SEE NOTE 4
LOADED FOR 7425-2 ONLY
NOTE: CHANGE LOADING VARIATION CHART FOR -2 ONLY
KEYBOARD REPEAT CONTROL
SYSTEM TIMING
CHARACTER COUNTER
LINE COUNTER
ROW COUNTERS
CRT ADDRESS MAP
OUTPUT DECODER
STATUS REGISTER
8080 FUNCT. DECODER
PARITY GENERATOR
CRT CONTROL REG
BLINK RATE
SPACE DECODER
CRT CHARACTER REGISTER
RAM OUTPUT REGISTER
CHARACTER SHIFT REGISTER
CHARACTER GENERATOR
CRT WRITE CONTROL
CRT READ CONTROL
CLICKER CKT
CLICKER
EXTERNAL
PARITY CHECK CIRCUIT
PROM
CHAR. VIDEO
CUT ETCH FOR 7425-4 VERSION
COMPOSITE VIDEO
INTERRUPT TRAP
KEYBOARD INPUTS
POWER UP FF
SEE NOTE 5
S.H KEY
SPEED
WANG PART NO. | ITEM | QTY. | NAME | MATERIAL | DESCRIPTION
WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.
DWN 2-17-78
CHK
E. C. CONTROL
E ENGR
M ENGR
MFG ENGR
MODEL NO. 928
SEE ENGRG SPECIFICATIONS No.
TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 125
SCALE — SHT 1 OF 2
TITLE WS CRT CONTROL W/TC OPTION
210-7425 E 7425 13
WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.
SEE SHEET 2
REVISION









HOLE LEGEND			
DRILLED OR PUNCHED HOLE TOLERANCES:	HOLE DIA.	TOL.	
	.0135 to .125	+ .003 — .001	
	.126 to .250	+ .004 — .001	
	.251 to .500	+ .005 — .001	
IDENT.	DESCRIPTION		QTY.
A			

LOCATION	W.L. PART NO.	TYPE
L1,2,3,91	376-0183	74173
L4,5,8	376-0160	74LS175
L6,7	SEE LOADING CHART	2708
L9,25,96	376-0016	7402
L10,70,71,72,102,123	376-0006	7474
L11,99,124	376-0126	555
L12-18, 26-32, 41-47, 57-63	SEE CHART	2102A-4
L19	376-0012	7451
L20,36	376-0059	7495
L21	376-0045	74H04
L22	376-0031	7430
L23,53,68,86,122	376-0093	7432
L24,55,69	376-0010	7404
L119	376-0199	74S02
L33,48,64	376-0082	74157
L34,49,50,65,66	376-0094	74161
L35	376-0049	74155
L37,56,97	376-0081	7408
L38	376-0007	7476
L39,51,112,121	376-0003	7410
L40,67,80	376-0004	7420
L52,100	376-0002	7400
L94	376-0230	74S20
L79,81,83	376-0202	74S74
L73,74,75,76,90	376-0176	74367
L77	376-0008	7442
L78,110	376-0200	74S08
L54,82	376-0194	7411
L84,85,98	376-0104	9602
L109,	376-0205	74S32
L87,104,105,113	376-0179	74368
L88	376-0050	74180
L89,107,108,111	376-0098	74174
L92	376-0119	74175
L93,118	376-0197	74S04
L95	377-0125	7427
L103,106	376-0185	8T98
L120	376-0228	74S00
L114	376-0139	7414
L116	376-0178	75322
L117	SEE CHART	8080A
L115	376-0069	74145

COMPONENT	W.L. PART NO.
R13-24,25,26,30, 47, ,60,63,69, 73,76-77,89, 91, 98,112	330-3010
R82	330-2039
R70,72,75, 78,90, R3-12,27-29,31,34, 46,48-59,67,68,92-96,99,101,102,105-111	330-3022
R35,38-45,32,65,103,104	330-4010
R62	330-3047
R33	330-4027
R66,36	330-4047
R61	330-4018
R64	330-3082
R1,2	330-2033
R97	330-5010
R88	331-1076
R86	330-2018
R71,74	330-1011
R83	331-1010
R79,81,87,84	330-2047
R80	330-2056
Q1	375-1021
Q2,3	375-1050
XTAL	321-0018
C1-14	300-1930
C15,27,28	300-1047
C16	300-1150
C17	300-4024
C18	300-4016
C24,72-78	300-4022
C20	300-1220
C21	300-4018
C22	300-4020
C23	300-4002
C19	300-4039
C26	300-1903
C29	300-1680
C25,30-71,79-80	300-1900
16 PIN SOCKET	376-9002
24 PIN SOCKET	376-9003
40 PIN SOCKET	376-9011
J1	REF
D1	380-1001
R37	330-4033
R85	330-2022
R100	336-1014
C81	300-1906

LOCATION	TYPE	SPARES
L9	7402	1
L21	74H04	1
L24	7404	1
L51	7410	1
L53	7432	1
L55	7404	2
L68	7432	2
L69	7404	1
L54	7411	1
L86	7432	3
L93	74S04	1
L98	9602	1
L100	7400	1
L102	7474	1
L113	74368	1
L114	7414	3
L90	74367	2
L104	74368	2
L106	8T98	2

NOTES *

1. REMOVE L44, L46, L60, L62 AND ADD TWO (2) 10KΩ RESISTORS FOR WORD PROCESSING VERSION. R103, 104
2. FOR DATA ENTRY VERSION, DELETE TWO (2) 10KΩ RESISTORS, R103, 104 AND ADD L44, L46, L60, L62
3. LOAD FOR 7425-4. VERSION ONLY L25 IS 7402 - L54 IS 7411 - L67 IS 7420 - L72 IS 7474 - L86 IS 7432.
4. R111 + R112 LOADED FOR -2 VERSION ONLY J1-7 ADDED.
5. INDICATES JUMPER FOR 7425-2 ONLY

210 = 209 + 377 OR 378

	MODEL	210	209	L6	L7	L8	L45,61	L45,63	L51	L52	L117	R113
60HZ	928 STD	7425A	7425	378-2030-R1			377-0069				377-0269	
	928 JAP	7425B	7425	378-2230			377-0069				377-0269	
	928W/BLINK	7425C	7425	378-2030-R1			377-0069				377-0269	
	928 SPAN	7425D	7425	378-2068			377-0069				377-0269	
	KATAKANA	7425-2A	7425-2	378-2445			377-0069				377-0269	330-0047
50HZ	928 STD	7425-1A	7425	378-2030-R1			377-0069				377-0269	
	928 JAP	7425-1B	7425	378-2230			377-0069				377-0269	
	928W/BLINK	7425-1C	7425	378-2030-R1			377-0069				377-0269	
	928 SPAN	7425-1D	7425	378-2131-R1			377-0069				377-0269	
	KATAKANA	7425-3A	7425-2	378-2443			377-0069				377-0269	
	SWEDISH	7425-1E	7425	378-2293			377-0069				377-0269	
	GERMAN	7425-1F	7425	378-2030-R1			377-0069				377-0269	
	NOR/DANISH	7425-1G	7425	378-2307			377-0069				377-0269	
SEE NOTE 3 →	TEMPEST	7425-4A	7425-4	378-2030-R1			377-0069				377-0269	
	DEBUG	7425-E	7425			378-2454	377-0069				377-0269	
	GREEK/LATIN	7425-1H	7425	378-2694	378-2695		377-0069				377-0269	
	928 SCI/GOTH	7425-F	7425			378-2521	377-0069				377-0269	

COMPONENT LAYOUT

NOTE: C30-71 .05μf

NOTE: C72-78 15μf 20V TANT

SIGNAL-TERMINAL DESIGNATIONS, VIEW FROM BOTTOM (WIRING) SIDE OF CONNECTOR

7425	7425-1 E-REV	7425-2 E-REV	7425-4 E-REV
1	1	1	0

NO.	DATE	BY	REVISION
0/0	2-17-78	GK	ORIGINATED PER DWR # E454 APP'D: 5-17-78
1/0	4-28-78	GK	REVISED PER ECN # 8350 APP'D 5-17-78
2/0	8-31-78	GK	REVISED PER ECN# 8640 APP'D: 9-13-79
3/0	8-31-78	GK	REVISED PER ECN# 9308 APP'D: 9-13-79
4/0	9-29-78	GK	REVISED PER ECN# 9344 E9488 APP'D: 9-13-79
5/1	9-21-78	GK	REVISED PER ECN# 9522, 9659 APP'D: 9-13-79
6/1	3-29-79	SD	REVISED PER ECN'S # 10335, 10417, 10560 APP'D: 9-13-79
7/1	3-31-79	MRM	REVISED PER ECNS # 10793, 10943, 12249 APP'D: 9-13-79
8/1	10-5-79	L.O.	REVISED PER ECN # 12824 APP'D: 11-27-79
9/1	10-27-79	L.O.	REVISED PER ECN # 13002 APP'D: 11-27-79
10/1	1-9-80	L.O.	REVISED PER ECN # 13881 APP'D 1-12-80
11/1	4-25-80	AM	REVISED PER ECN # 14792 APP'D 6-20-80
12/1	6-19-80	AM	REVISED PER ECN # 15499 APP'D 6-19-80
13/1	3-4-81	R.B.P.	REVISED PER ECO #17499 APP'D: DG 3-9-81

WANG PART NO.	ITEM	QTY.	NAME	MATERIAL	DESCRIPTION

WANG LABORATORIES, INC. TEWKSBURY, MASS. U.S.A.

Qty. Per Unit	FIRST USED ON	ASSY USED ON

	BY	DATE	APPROVED BY	DATE
DWN	GK	2/17/78	E ENGR S. JEFFERS	5/17/78
CHK	G.D.	5/17/78	M ENGR	
E. C. CONTROL			MFG ENGR	

MATERIAL

MODEL NO. 928

SEE ENGRG SPECIFICATIONS No.

FINISH

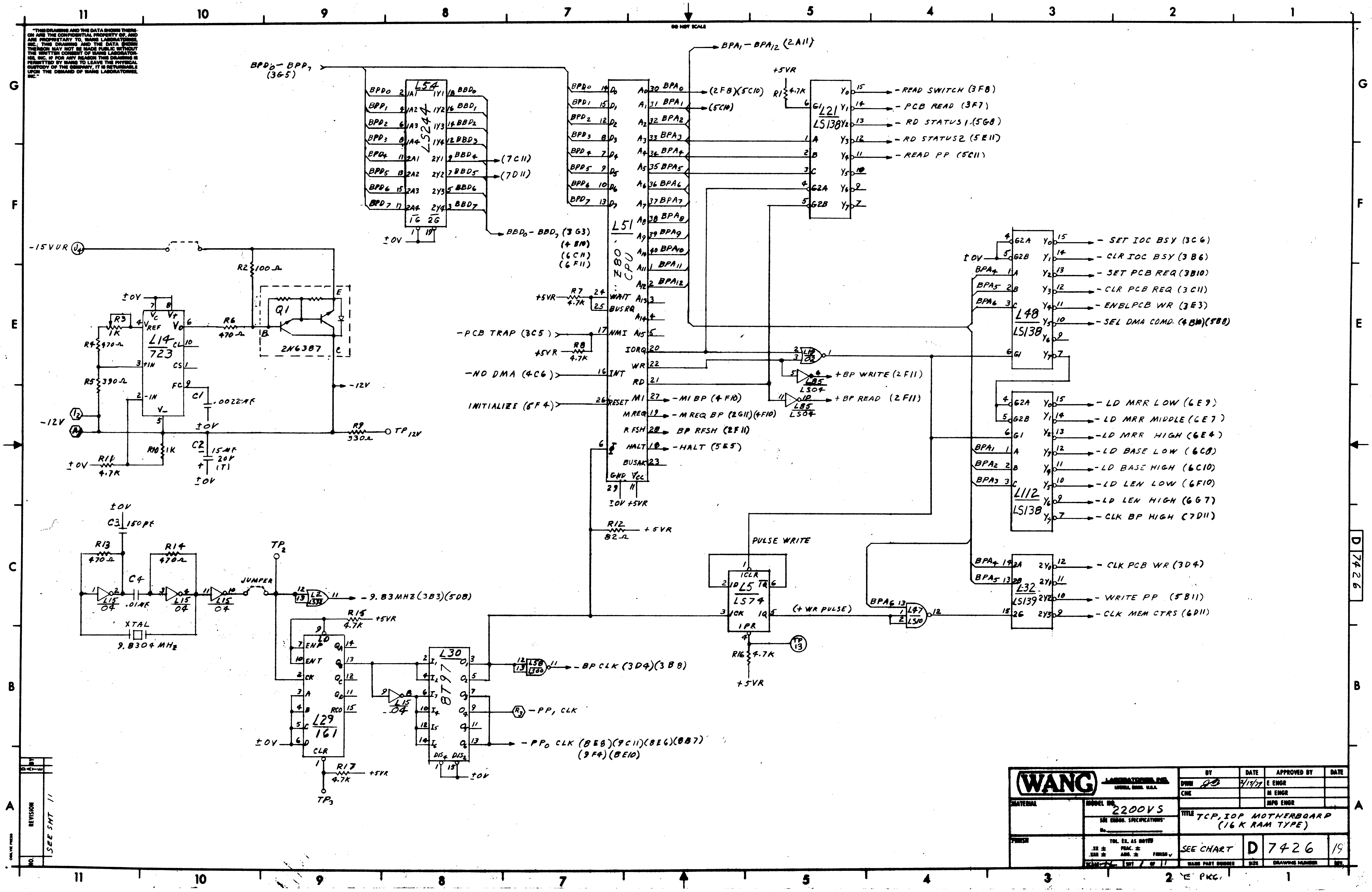
TOL. EX. AS NOTED .XX ± .010 FRAC. ± 1/64 .XXX ± .005 ANG. ± 1°30' FINISH 125 √

SCALE — SHT 2 OF 2

TITLE WS CRT CONTROL W/TC

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7425	E	7425	13

E 7425


DO NOT SCALE
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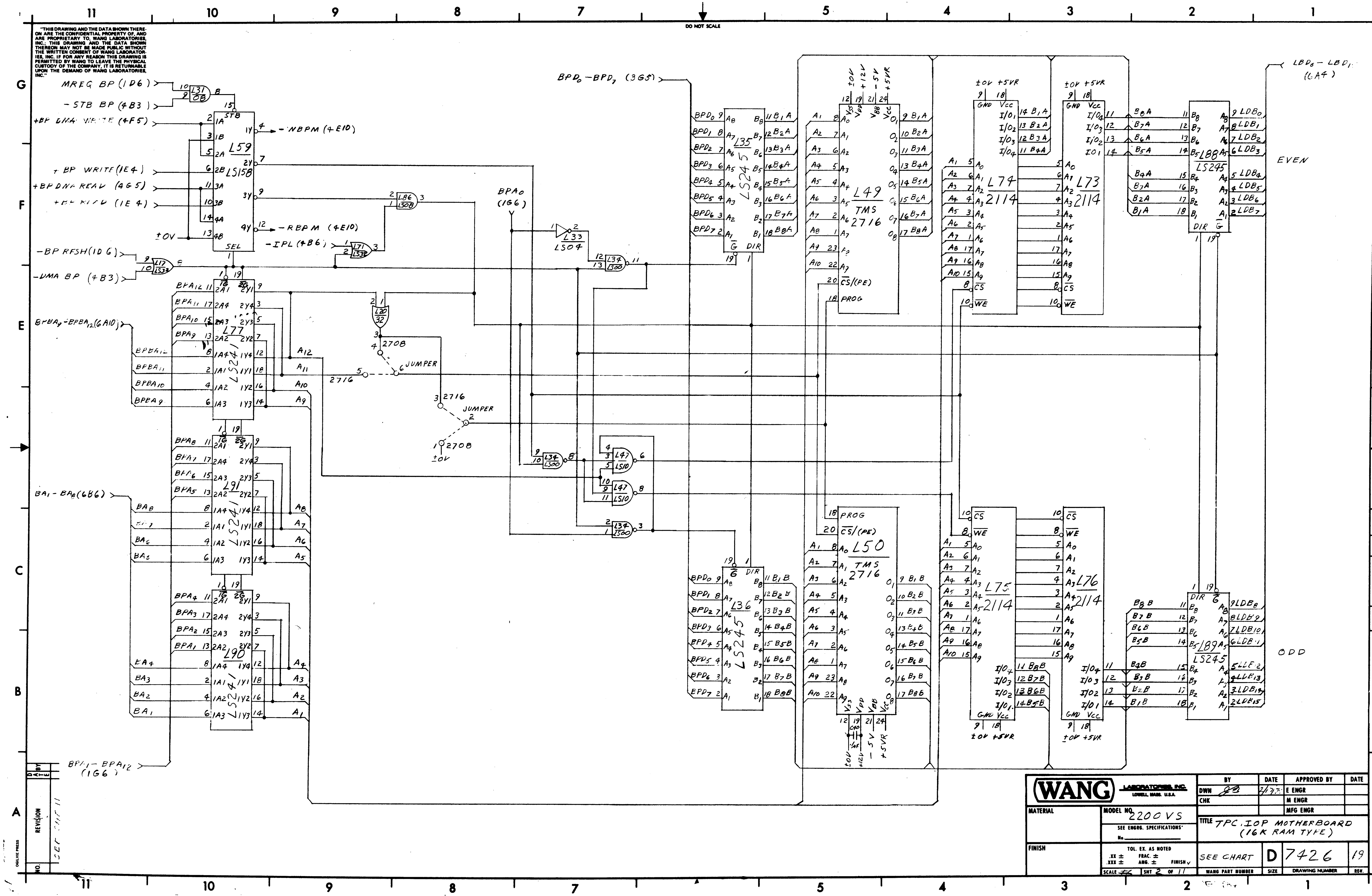
BPD0 – BPD7 (3G5)
L54 LS244
BBD0 – BBD7 (3G3) (4B10) (6C11) (6F11)
BPA1 – BPA12 (2A11)
L51 Z80 CPU
L21 LS138
– READ SWITCH (3F8)
– PCB READ (3F7)
– RD STATUS1 (5G8)
– RD STATUS2 (5E11)
– READ PP (5C11)
L48 LS138
– SET IOC BSY (3C6)
– CLR IOC BSY (3B6)
– SET PCB REQ (3B10)
– CLR PCB REQ (3C11)
– ENBL PCB WR (3E3)
– SEL DMA COMD. (4B10)(5B8)
L112 LS138
– LD MRR LOW (6E9)
– LD MRR MIDDLE (6E7)
– LD MRR HIGH (6E4)
– LD BASE LOW (6C8)
– LD BASE HIGH (6C10)
– LD LEN LOW (6F10)
– LD LEN HIGH (6G7)
– CLK BP HIGH (7D11)
L32 LS139
– CLK PCB WR (3D4)
– WRITE PP (5B11)
– CLK MEM CTRS (6D11)
–15VUR
L14 723
Q1 2N6387
–12V
TP 12V
– PCB TRAP (3C5)
– NO DMA (4C6)
INITIALIZE (6F4)
– M1 BP (4F10)
– MREQ BP (2G11)(4F10)
BP RFSH (2F11)
– HALT (5E5)
+BP WRITE (2F11)
+BP READ (2F11)
PULSE WRITE
L5 LS74
(+ WR PULSE)
XTAL 9.8304 MHz
JUMPER
– 9.83 MHZ (3B3)(5D8)
L29 161
L30 8T97
– BP CLK (3D4)(3B8)
– PP, CLK
– PP0 CLK (8E8)(9C11)(8E6)(8B7) (9F4)(8E10)
REVISION
SEE SHT 11
WANG LABORATORIES, INC.
MODEL NO. 2200VS
TITLE TCP, IOP MOTHERBOARD (16 K RAM TYPE)
SEE CHART
D 7426
19
'E' PKG.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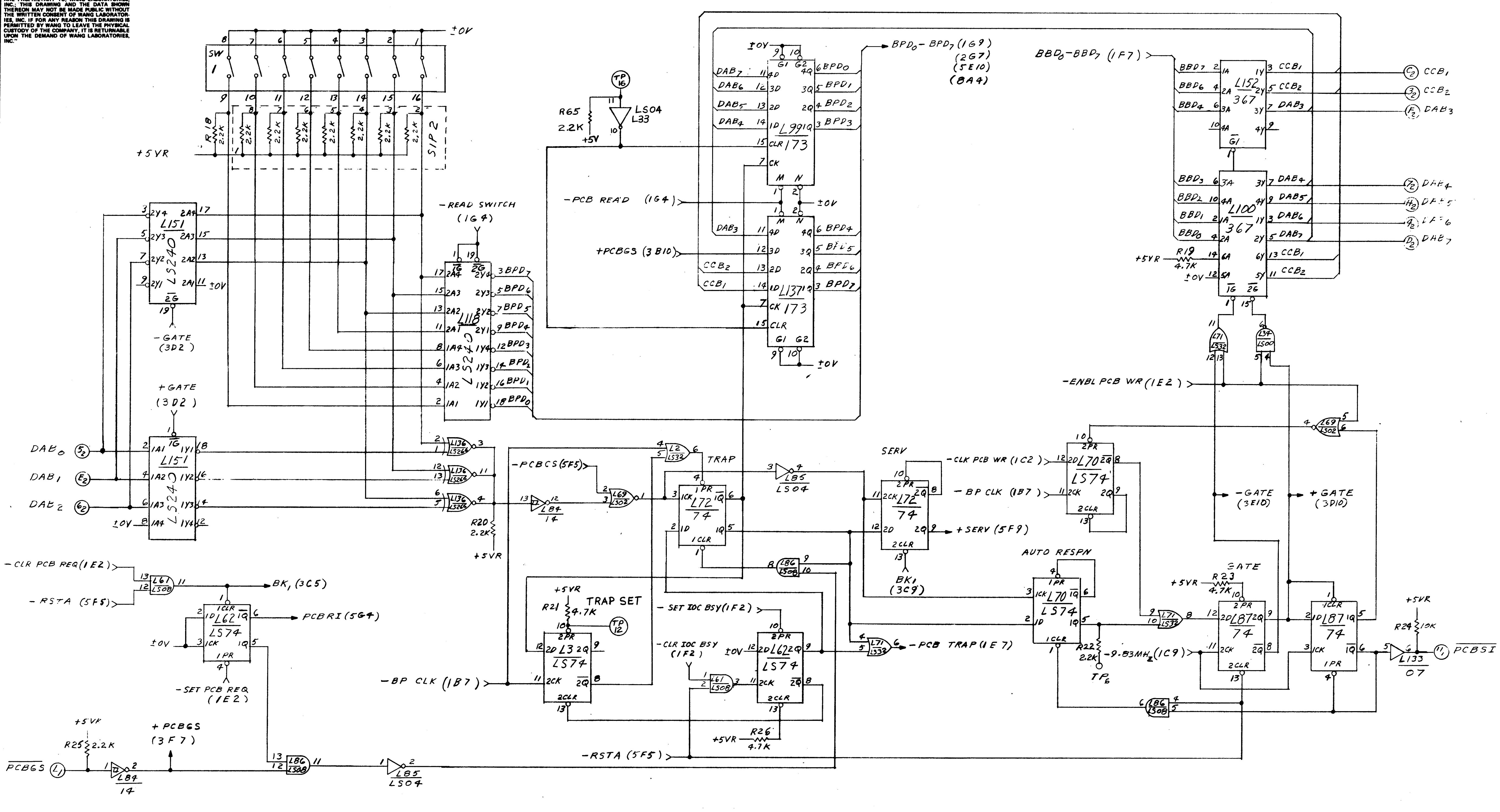
DO NOT SCALE
EVEN
ODD
L49 TMS 2716
L50 TMS 2716
L74 2114
L73 2114
L75 2114
L76 2114
L59 LS158
L77 LS241
L91 LS241
L90 LS241
L35 LS245
L36 LS245
L88 LS245
L89 LS245
JUMPER
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MODEL NO. 2200 VS
TITLE TPC, IOP MOTHERBOARD (16K RAM TYPE)
SEE CHART
D 7426
19
SHT 2 OF 11

DO NOT SCALE



SW 1
SIP 2
+5VR
L151 LS240
-GATE (3D2)
+GATE (3D2)
DAB0
DAB1
DAB2
-READ SWITCH (1G4)
L118 LS240
R65 2.2K
LS04 L33
BPD0 - BPD7 (1G9) (2G7) (5E10) (8A4)
L99 173
-PCB READ (1G4)
+PCBGS (3B10)
L137 173
BBD0-BBD7 (1F7)
L152 367
L100 367
R19 4.7K
-ENBL PCB WR (1E2)
-GATE (3E10)
+GATE (3D10)
TRAP
-PCBCS (5F5)
L72 74
SERV
-CLK PCB WR (1C2)
-BP CLK (1B7)
+SERV (5F9)
L70 LS74
R20 2.2K
-CLR PCB REQ (1E2)
-RSTA (5F5)
BK, (3C5)
L62 LS74
PCBRI (5G4)
-SET PCB REQ (1E2)
TRAP SET
R21 4.7K
L32 LS74
-SET IOC BSY (1F2)
-CLR IOC BSY (1F2)
L62 LS74
BK, (3C9)
-PCB TRAP (1E7)
AUTO RESPN
L70 LS74
R22 2.2K
-9.83MHz (1C9)
R23 4.7K
GATE
L87 74
R24 10K
L133 07
PCBSI
-BP CLK (1B7)
R26 4.7K
-RSTA (5F5)
+PCBGS (3F7)
R25 2.2K
PCBGS
L84 14
L85 LS04

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.	BY	DATE	APPROVED BY	DATE
DWN			E ENGR	
CHK			M ENGR	
			MFG ENGR	

MATERIAL — MODEL NO. 2200VS — SEE ENGRG. SPECIFICATIONS No.

TITLE: TCP, IOP MOTHERBOARD (16K RAM TYPE)

FINISH — TOL. EX. AS NOTED

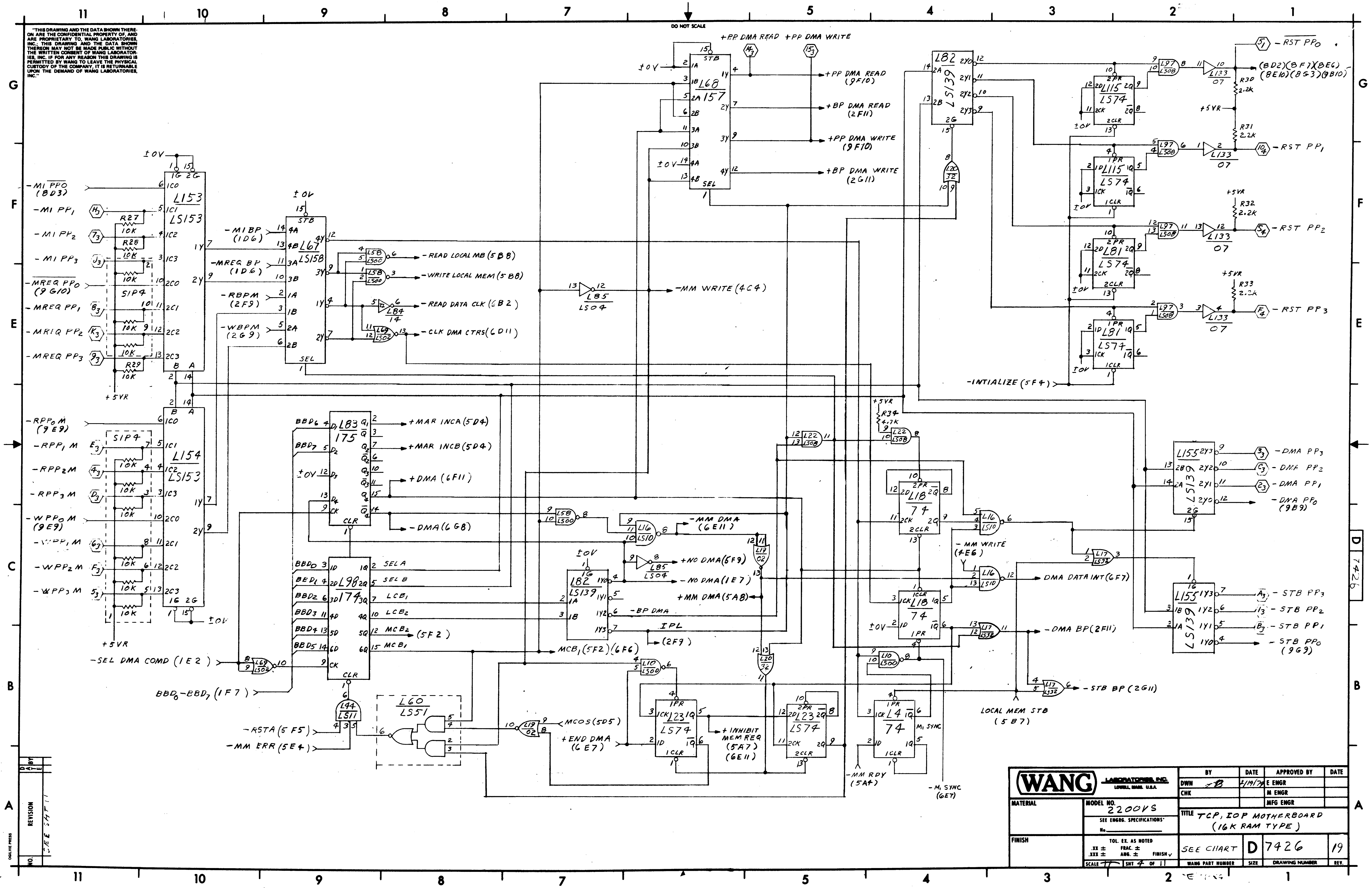
SEE CHART — D — 7426 — 19

WANG PART NUMBER — SIZE — DRAWING NUMBER — REV.

SCALE — SHT 3 OF 11

REVISION: SEE SHT 11

D 7426



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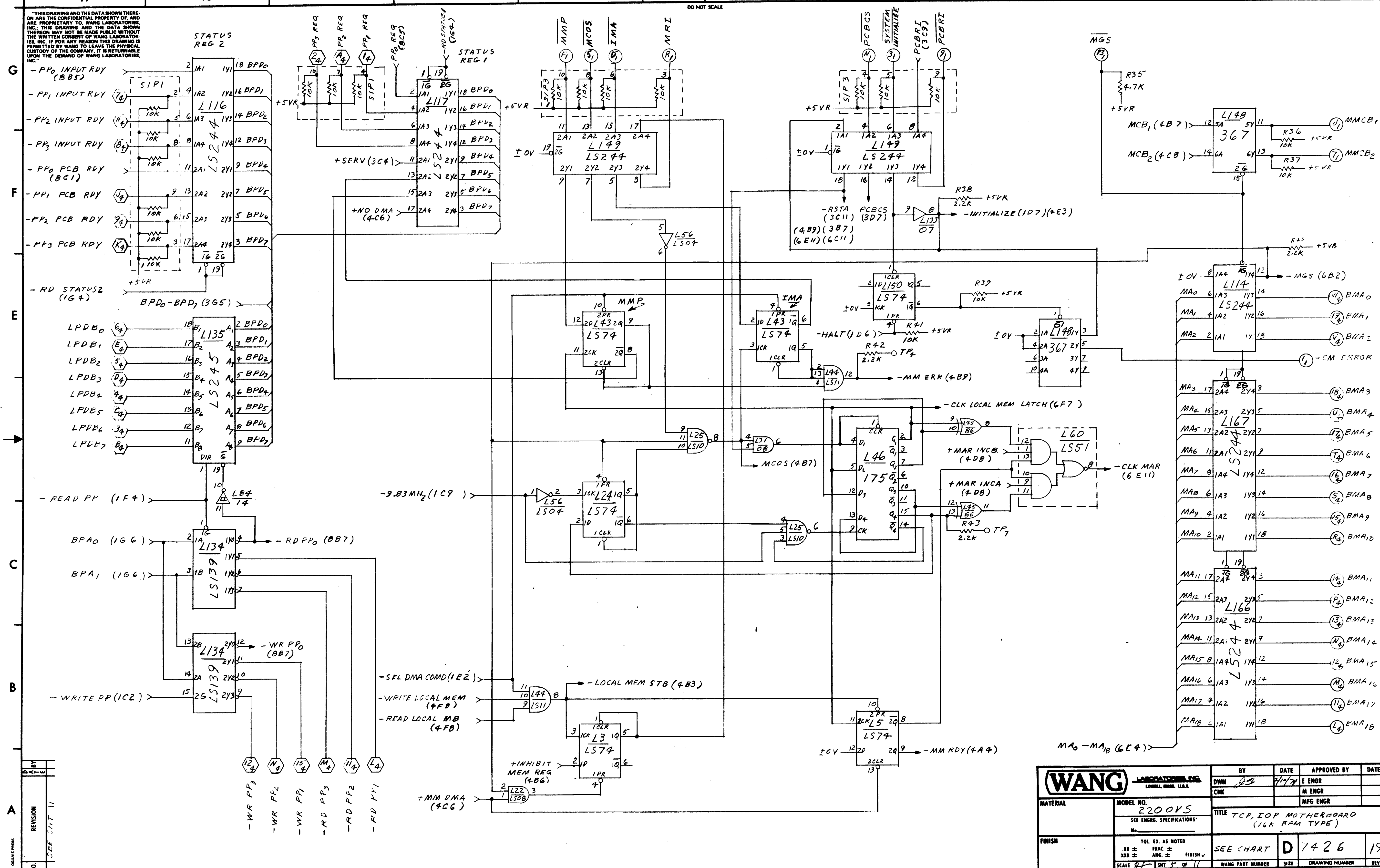
DO NOT SCALE
+PP DMA READ
+PP DMA WRITE
+PP DMA READ (9F10)
+BP DMA READ (2F11)
+PP DMA WRITE (9F10)
+BP DMA WRITE (2G11)
L68 L157
L82 LS139
L115 LS74
L81 LS74
L97 LS08
L133 07
- RST PP0
(BD2)(BF7)(BE6)(BE10)(853)(9B10)
- RST PP1
- RST PP2
- RST PP3
+5VR
R30 2.2K
R31 2.2K
R32 2.2K
R33 2.2K
- INTIALIZE (5F4)
- MI PP0 (8D3)
- MI PP1
- MI PP2
- MI PP3
- MREQ PP0 (9G10)
- MREQ PP1
- MRIQ PP2
- MREQ PP3
L153 LS153
L154 LS153
SIP4
R27 10K
R28 10K
R29 10K
- MIBP (1D6)
- MREQ BP (1D6)
- RBPM (2F9)
- WBPM (2G9)
L67 LS158
- READ LOCAL MB (5B8)
- WRITE LOCAL MEM (5B8)
- READ DATA CLK (6B2)
- CLK DMA CTRS (6D11)
L85 LS04
- MM WRITE (4C4)
- RPP0 M (9E9)
- RPP1 M
- RPP2 M
- RPP3 M
- WPP0 M (9E9)
- WPP1 M
- WPP2 M
- WPP3 M
L83 175
+MAR INCA (5D4)
+MAR INCB (5D4)
+DMA (6F11)
- DMA (6G8)
L98 174
SEL A
SEL B
LCB1
LCB2
MCB2 (5F2)
MCB1
MCB1 (5F2)(6F6)
- SEL DMA COMD (1E2)
BBD0 - BBD7 (1F7)
- RSTA (5F5)
- MM ERR (5E4)
L60 LS51
L44 LS11
L69 LS02
L16 LS10
- MM DMA (6E11)
+NO DMA (5F9)
- NO DMA (1E7)
+MM DMA (5A8)
- BP DMA
IPL
(2F9)
L10 LS00
MCOS (5D5)
+END DMA (6E7)
L19 02
L123 LS74
L23 LS74
L4 74
+INHIBIT MEM REQ (5A7) (6E11)
- MM RDY (5A4)
- M1 SYNC (6E7)
M1 SYNC
L18 74
L22 LS08
R34 4.7K
- MM WRITE (4E6)
DMA DATA INT (6F7)
- DMA BP (2F11)
- STB BP (2G11)
LOCAL MEM STB (5B7)
L155 LS139
- DMA PP3
- DMA PP2
- DMA PP1
- DMA PP0 (9B9)
- STB PP3
- STB PP2
- STB PP1
- STB PP0 (9G9)
L17 LS32
L20 32
L12 32
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
BY | DATE | APPROVED BY | DATE
DWN | 2/19/79 | E ENGR
CHK | M ENGR
MATERIAL | MODEL NO. 2200VS | MFG ENGR
SEE ENGRG. SPECIFICATIONS
TITLE TCP, IOP MOTHERBOARD (16K RAM TYPE)
FINISH
TOL. EX. AS NOTED
SEE CHART | D | 7426 | 19
WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.
SCALE | SHT 4 OF 11
REVISION
SEE SHT 1
D 7426


STATUS REG 2
STATUS REG 1
-PP0 INPUT RDY (8B5)
-PP1 INPUT RDY
-PP2 INPUT RDY
-PP3 INPUT RDY
-PP0 PCB RDY (8C1)
-PP1 PCB RDY
-PP2 PCB RDY
-PP3 PCB RDY
-RD STATUS2 (1G4)
BPD0-BPD7 (3G5)
LPDB0
LPDB1
LPDB2
LPDB3
LPDB4
LPDB5
LPDB6
LPDB7
-READ PP (1F4)
BPA0 (1G6)
BPA1 (1G6)
-RD PP0 (8B7)
-WR PP0 (8B7)
-WRITE PP (1C2)
-WR PP3
-WR PP2
-WR PP1
-RD PP3
-RD PP2
-RD PP1
+SERV (3C4)
+NO DMA (4C6)
MMP
MCOS
IMA
MRI
PCBCS
SYSTEM INITIALIZE
PCBRI (3C9)
PCBRI
MGS
-RSTA (3C11)
PCBCS (3D7)
-INITIALIZE (1D7) (4E3)
-HALT (1D6)
-MM ERR (4B9)
-MGS (6B2)
MCB1 (4B7)
MCB2 (4C8)
MMCB1
MMCB2
-CM ERROR
-CLK LOCAL MEM LATCH (6F7)
+MAR INCB (4D8)
+MAR INCA (4D8)
-CLK MAR (6E11)
MCOS (4B7)
-9.83MHz (1C9)
-SEL DMA COMD (1E2)
-WRITE LOCAL MEM (4F8)
-READ LOCAL MB (4F8)
-LOCAL MEM STB (4B3)
+INHIBIT MEM REQ (4B6)
+MM DMA (4C6)
-MM RDY (4A4)
MA0-MA18 (6C4)
DO NOT SCALE

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WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MODEL NO. 2200VS — SEE ENGRG. SPECIFICATIONS

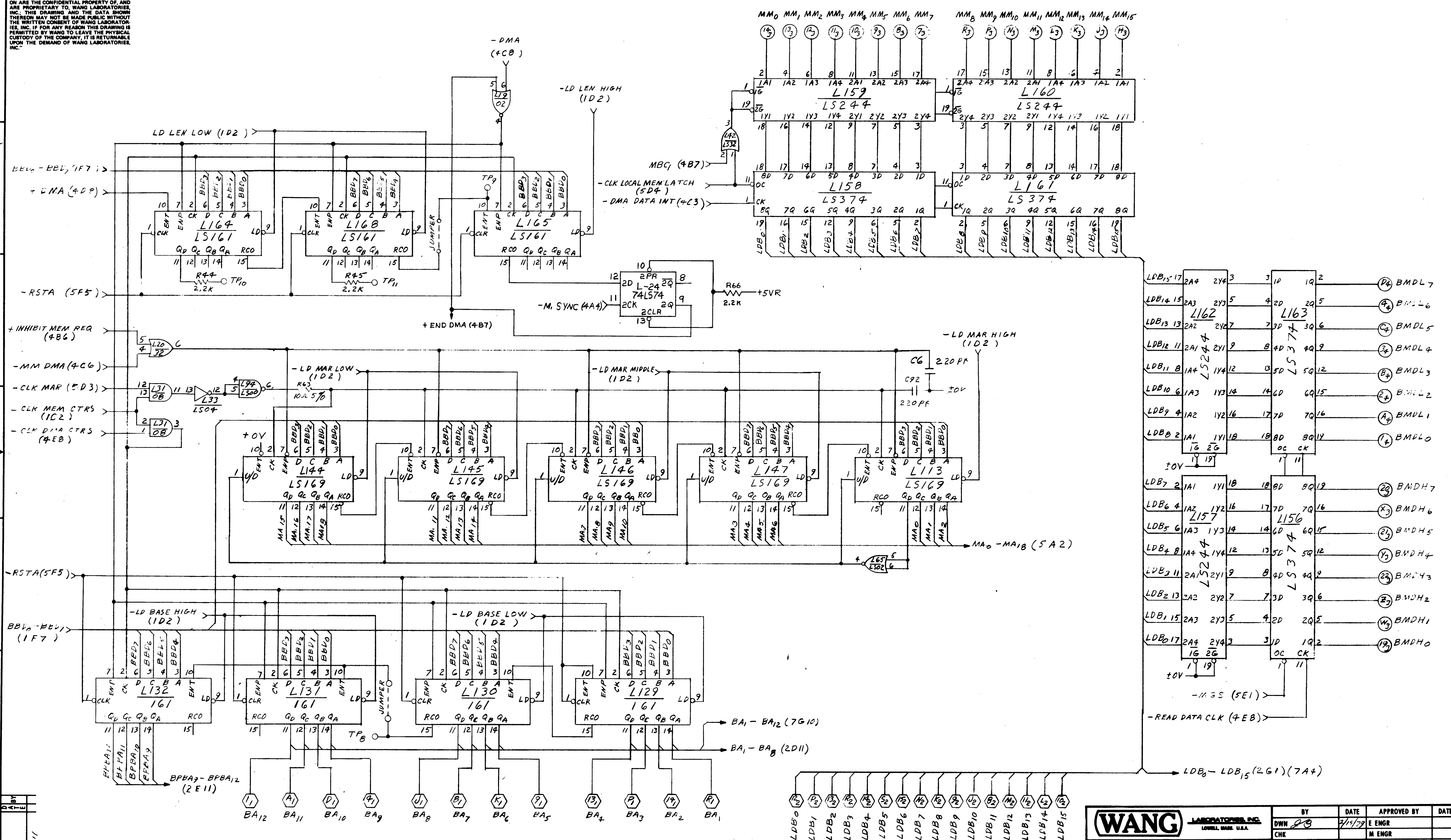
TITLE: TCP, IOP MOTHERBOARD (16K RAM TYPE)

SEE CHART — SIZE D — DRAWING NUMBER 7426 — REV. 19

SHT 5 OF 11

REVISION: SEE CHT 11

DO NOT SCALE



WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.	BY	DATE
DWN	JB	3/14/79
MODEL NO.	2200VS	
TITLE	TCP, IOP MOTHERBOARD (16K RAM TYPE)	
WANG PART NUMBER	SEE CHART	
SIZE	D	
DRAWING NUMBER	7426	
REV.	19	
SCALE	SHT 6 OF 11	

D 7426

DO NOT SCALE

BA1 - BA12 (6B6)

PPA1 - PPA6 (8G3)
PPA8 - PPA14

L123 LS244 — BA1 BA2 BA3 BA4 PPA1 PPA2 PPA3 PPA4 → PP MA0 PP MA1 PP MA2 PP MA3 PP MA4 PP MA5 PP MA6

L106 LS244 — BA5 BA6 BA7 PPA5 PPA6 → PP MA4 PP MA5 PP MA6

L105 LS244 — BA8 PPA13 PPA14 PPA8 → PPMA0 PPMA6 PPMA5

L124 LS244 — BA9 BA10 BA11 BA12 PPA9 PPA10 PPA11 PPA12 → PPMA0 PPMA1 PPMA2 PPMA3 PPMA4 PPMA5 PPMA6

RAS ODD (9D6) → RAS
CAS ODD (9D6) → CAS
WRITE (9F9) → WR

RAS EVEN (9D6) → RAS
CAS EVEN (9D6) → CAS
WRITE (9F9) → WR

L139A LS139 — ±0V, BK11 (9B8), SEL CAS (9D4) → RASA2, RASA DMA, CASA2, CASA DMA

BK2 (8F2)

BBD5 (1F8), BBD4 (1F8), CLK BP HIGH (1C2) → L193 LS74, L193 LS74, L193 LS74

R46 4.7K +5VR

R47 1K +5VR

L56 LS07 → BK2 (9C8)

L107 MK4116 → PPMP0
L125 MK4116 → PPMP1
L126 MK4116 → PPMP2
L108 MK4116 → PPMB3
L127 MK4116 → BBM8+
L109 MK4116 → PPMB5
L110 MK4116 → PPMB6
L128 MK4116 → PPMB7

L120 MK4116 → PPMB8
L102 MK4116 → PPMB9
L121 MK4116 → PPMB10
L103 MK4116 → PPMB11
L104 MK4116 → PPMB12
L122 MK4116 → PPMB13
L101 MK4116 → PPMB14
L119 MK4116 → PPMB15

READ (9F9)

L138 LS245 — PPMB15..PPMB8 → PPD7 PPD6 PPD5 PPD4 PPD3 PPD2 PPD1 PPD0
L139 LS245 — PPMB15..PPMB8 → LDB0 LDB1 LDB2 LDB3 LDB4 LDB5 LDB6 LDB7
L141 LS245 — PPMB7..PPMB0 → PPD7 PPD6 PPD5 PPD4 PPD3 PPD2 PPD1 PPD0
L140 LS245 — PPMB7..PPMB0 → LDB8 LDB9 LDB10 LDB11 LDB12 LDB13 LDB14 LDB15

SC1 (D2), SC0 (A2)

BK9 (9E8)
BK12 (9E8)
BK11 (9B8)

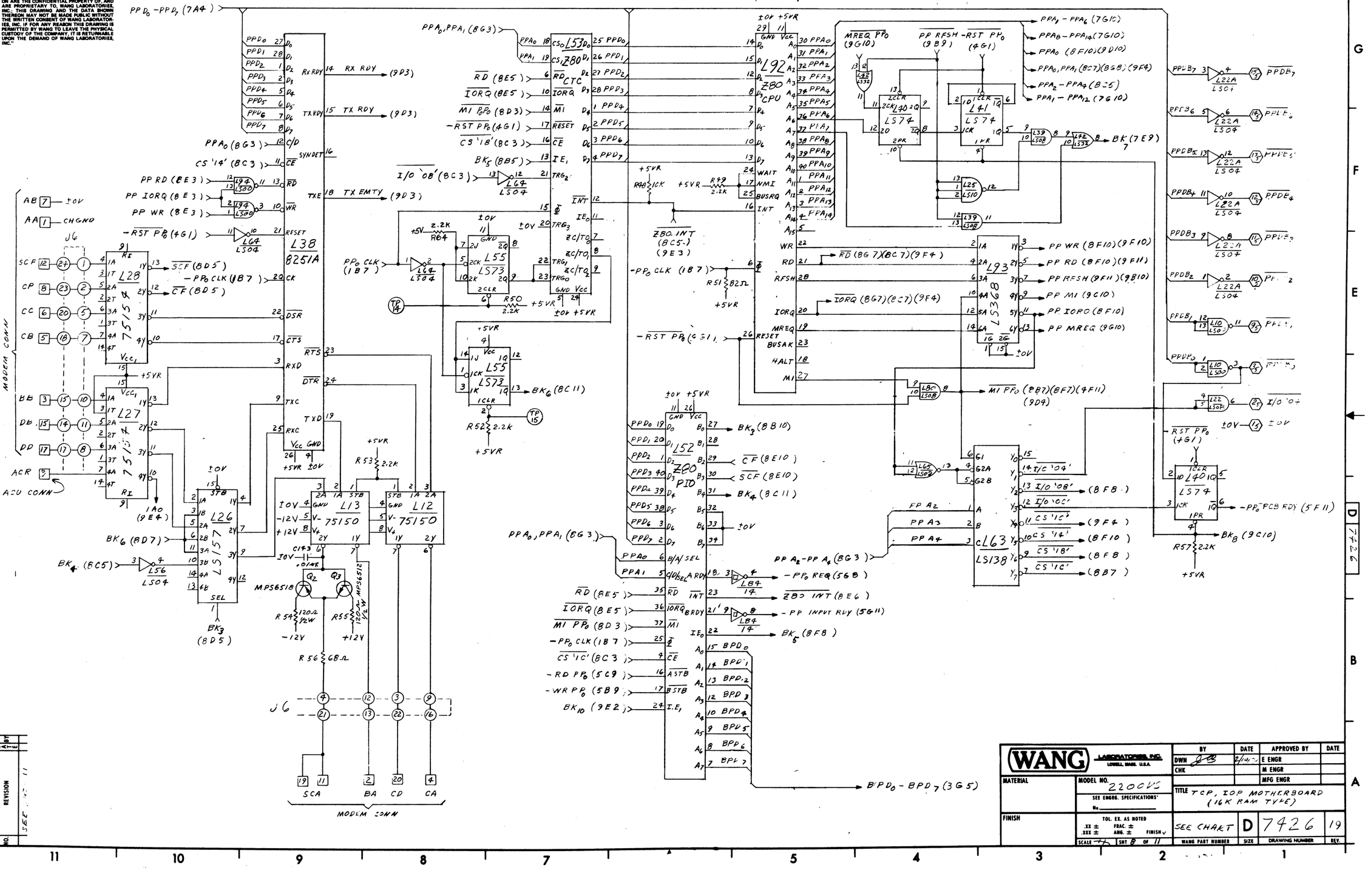
LDB0 - LDB15 (6A2)
PPD0 - PPD7 (8G10) (9G3)

REV.	REVISION	BY	DATE
A	SEE SHT 11		

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.	BY	DATE	APPROVED BY	DATE
MATERIAL	DWN	8/9/-	E ENGR	
MODEL NO. 2200VS	CHK		M ENGR	
SEE ENGRG. SPECIFICATIONS No.			MFG ENGR	
FINISH	TITLE: TCP, IOP MOTHERBOARD (16K RAM TYPE)			
TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH √	SEE CHART	D	7426	19
SCALE -/- SHT 7 OF 11	WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.

F 84;

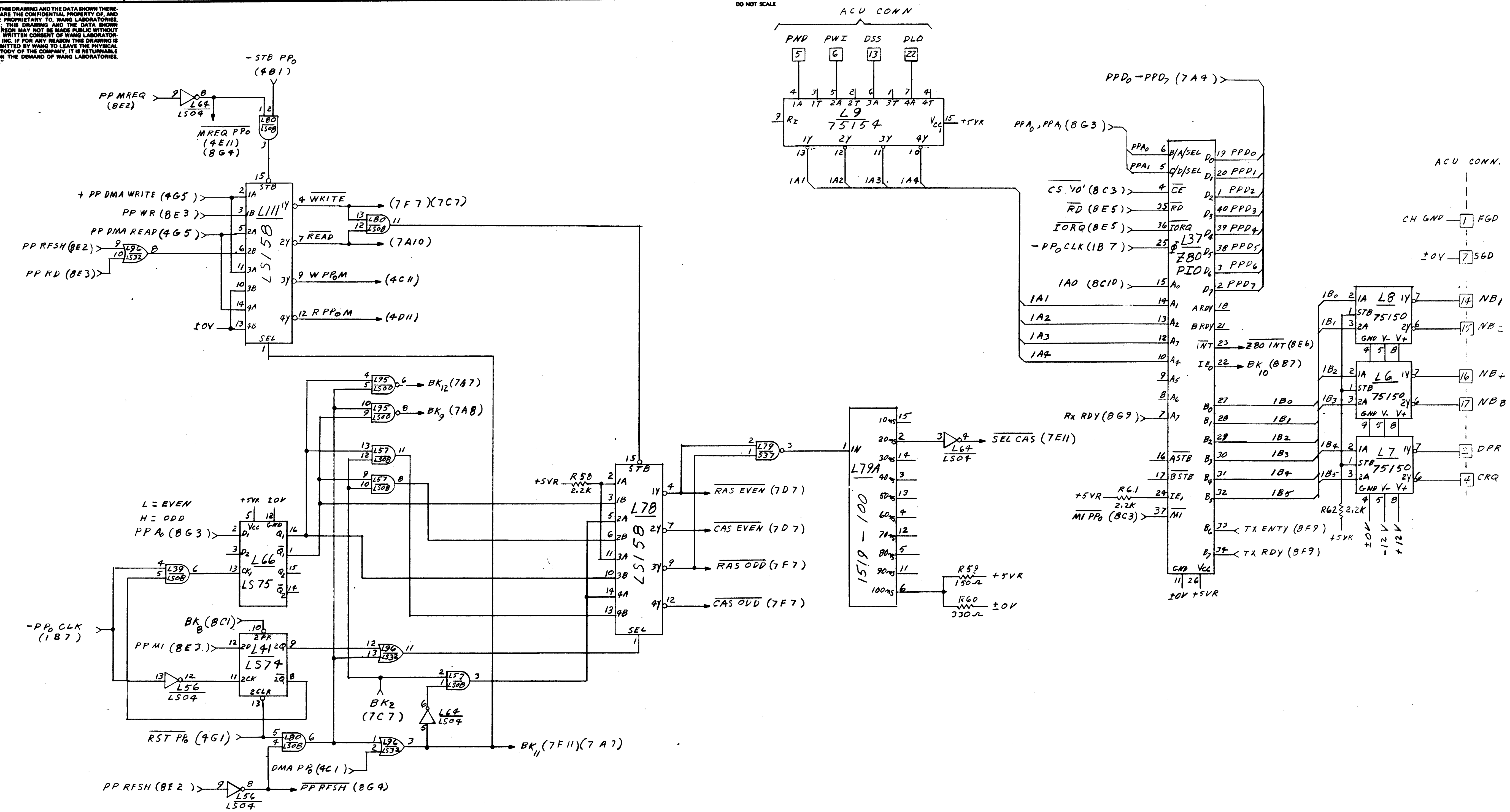
DO NOT SCALE



WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.	BY	DATE	APPROVED BY	DATE
	DWN	2/14/7-	E ENGR	
	CHK		M ENGR	
			MFG ENGR	
MATERIAL	MODEL NO. 2200VS		TITLE TCP, IOP MOTHERBOARD (16K RAM TYPE)	
	SEE ENGRG. SPECIFICATIONS No.			
FINISH	TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH √	SEE CHART	D	7426 19
	SCALE SHT 8 OF 11	WANG PART NUMBER	SIZE	DRAWING NUMBER REV.

REVISION	BY	DATE
SEE SHT 11		

DO NOT SCALE



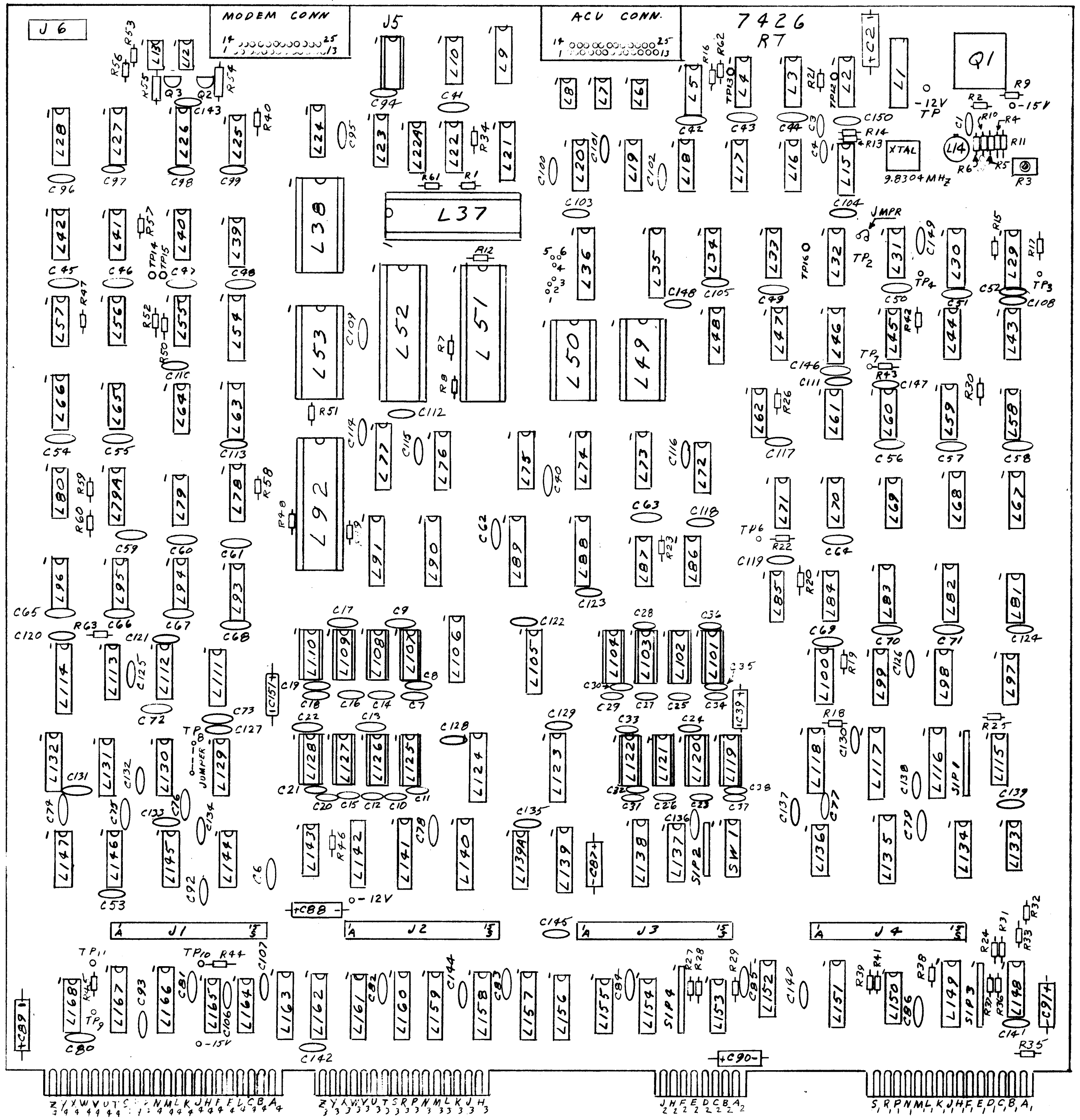
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.		BY	DATE	APPROVED BY	DATE
		DWN JB	2/...	E ENGR	
		CHK		M ENGR	
				MFG ENGR	
MATERIAL	MODEL NO. 2200VS SEE ENGRG. SPECIFICATIONS No.	TITLE TCP, IOP MOTHERBOARD (16K RAM TYPE)			
FINISH	TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH ✓	SEE CHART	D	7426	19
	SCALE — SHT 9 OF 11	WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.

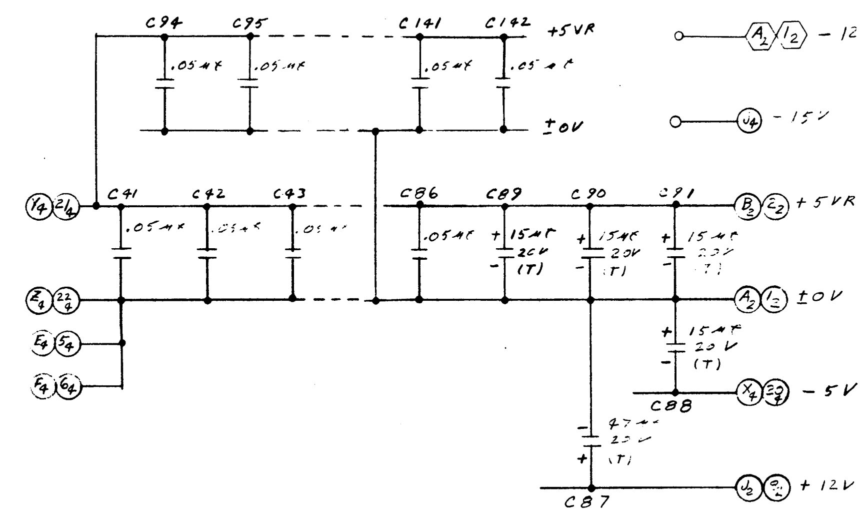
NO. | REVISION | DATE | BY
SEE SHT 11

DO NOT SCALE

210 = 209 + 377 OR 378

MODEL	209	210	L37, 52	L38	L49	L50	L51, 92	L53	L73-76	L101-104, 107-110, 119-122, 125-128
2200VS	7426	7426-A	377-0342	377-0352	378-4049-R4	378-4050-R4	377-0344	377-0343	377-0341L	377-0345
SERIAL IOP DIAG	7426	7426-B	377-0342	377-0352	378-4228	378-4229	377-0344	377-0343	377-0341-L	377-0345
VS-100	7426	7426-C	377-0342	377-0352	378-6000-R2	378-6001-R2	377-0344	377-0343	377-0341-L	377-0345





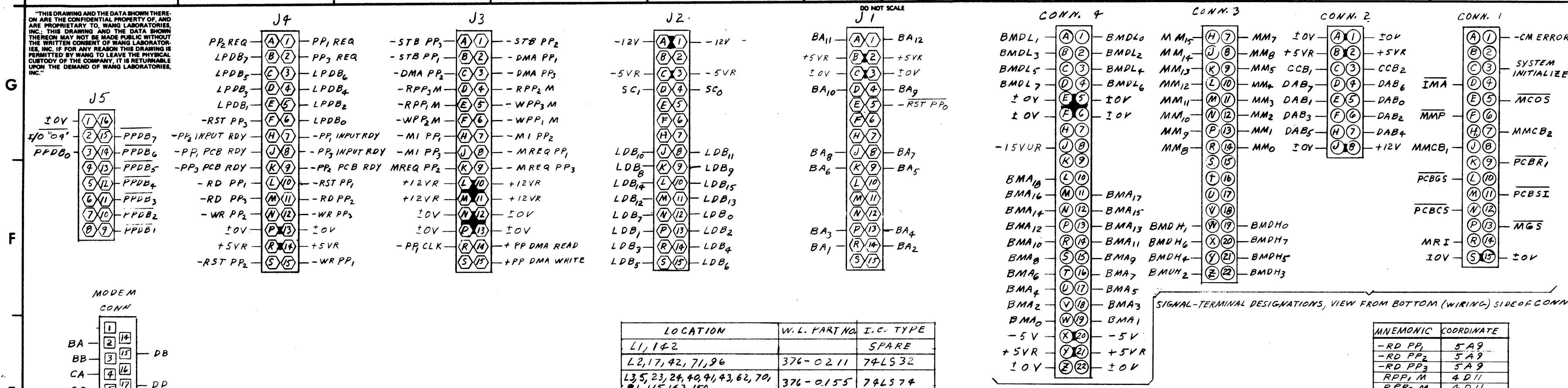
D 7426

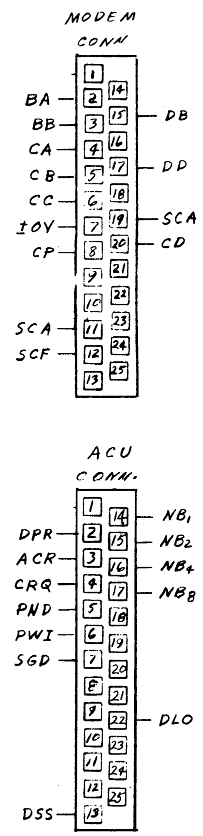
NO.	REVISION	DATE	BY
	SEE SHEET 11		

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.		BY	DATE	APPROVED BY	DATE
		DWN	2/19/79	E ENGR	
		CHK		M ENGR	
				MFG ENGR	
MATERIAL	MODEL NO. 2200VS; SEE ENGRG. SPECIFICATIONS No.	TITLE TCP, IOP MOTHERBOARD (16K RAM TYPE)			
FINISH	TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH ✓	SEE CHART	D	7426	19
	SCALE; SHT 10 OF 11	WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.

E PKG

DO NOT SCALE



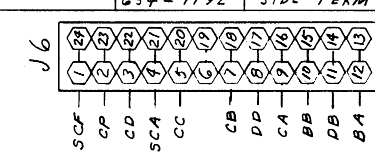


LOCATION	W.L. PART NO.	I.C. TYPE
L55	376-0304	74LS73
L59, 67, 78, 111	376-0293	74LS158
L60	376-0213	74LS51
L65, 69	376-0208	74LS02
L66	376-0312	74LS75
L73, 74, 75, 76	SEE CHART	2114
L77, 90, 91	376-0284	74LS241
L79	376-0296	74S37
L79A	376-8002	1519-100
L84	376-0139	7414
L93	376-0193	74LS368
L98	376-0098	74174
L99, 137	376-0183	74173
L100, 148, 152	376-0126	74367
L101-104, 107-110, 119-122, 125-128	SEE CHART	MK4116P
L113, 144-147	376-0314	74LS169
L118, 151	376-0297	74LS240
L133	376-0056	7407
L136	376-0148	74LS266
L153, 154	376-0156	74LS153
L156, 158, 161, 163	376-0286	74LS374
L164, 165, 168	376-0233	74LS161

LOADING CHART ON PAGE 10.

LOCATION	W.L. PART NO.	I.C. TYPE
L1, 142		SPARE
L2, 17, 42, 71, 96	376-0211	74LS32
L3, 5, 23, 24, 40, 41, 43, 62, 70, 81, 115, 143, 150	376-0155	74LS74
L4, 18, 72, 87	376-0006	7474
L6, 7, 8, 12, 13	376-0076	75150P
L9, 27, 28	376-0077	75154
L10, 34, 58, 94, 95	376-0207	74LS00
L14	376-0066	723
L15	376-0010	7404
L16, 25, 47	376-0209	74LS10
L19	376-0016	7402
L20	376-0093	7432
L21, 48, 63, 112	376-0294	74LS138
L22, 39, 57, 61, 80, 86, 97	376-0153	74LS08
L22A, 33, 56, 64, 85	376-0180	74LS04
L26, 68	376-0216	74LS157
L29, 129-132	376-0094	74161
L30	376-0189	8T97
L31	376-0081	7408
L32, 82, 134, 139A, 155	376-0226	74LS139
L35, 36, 88, 89, 135, 138, 139, 140, 141	376-0285	74LS245
L37, 52	SEE CHART	Z80-PIO
L38	SEE CHART	8251A
L44	376-0225	74LS11
L45	376-0036	7486
L46, 83	376-0119	74175
L49, 50	SEE CHART	2716
L51, 92	SEE CHART	Z80-CPU
L53	SEE CHART	Z80-CTC
L54, 105, 106, 114, 116, 117, 123, 124, 149, 157, 159, 160, 162, 166, 167	376-0288	74LS244

COMPONENT	W.L. PART NO.	TYPE
R1, 7, 8, 11, 15, 16, 17, 19, 21, 23, 26, 29, 35, 40, 46	330-3047	4.7K 1/4W 10%
R2	330-2010	100Ω 1/4W 10%
R3	336-1014	1K POT
R4, 6, 13, 14	330-2047	470Ω 1/4W 10%
R5	330-2039	390Ω 1/4W 10%
R9, 60	330-2033	330Ω 1/4W 10%
R10, 47	330-3010	1K 1/4W 10%
R12, 51	330-1082	82Ω 1/4W 10%
R18, 20, 22, 25, 30-33, 38, 42-45, 49, 52, 53, 57, 58, 61, 62, 50, 64, 65, 66	330-3022	2.2K 1/4W 10%
R24, 27, 28, 29, 36, 37, 39, 41, 48	330-4010	10K 1/4W 10%
R54, 55	331-2012	120Ω 1/2W 10%
R56	330-1068	68Ω 1/4W 10%
R59	330-2015	150Ω 1/4W 10%
R63	330-1011	10Ω 1/4W 5%
SIP1, 3, 4	333-CBC?	10K SIP RES
SIP2	333-0806	2.2K SIP RES.
SW1	325-1503	8 BANK ROCKER SW
C1	300-1908	.0022μF 500V CER.
C2, 88-91	300-4022	15μF 20V (T)
C3	300-1150	150PF 500V CER
C4, 143	300-1903	.01μF 25V CER
C6, 92	300-1220	220PF 500V CER
C7-38, 40	300-1930	.1μF 50V CER
C39, 151	300-4017	5.6μF 35V (T)
C41-86, 93-142, 144, 150	300-1900	.05μF 12V CER
C87	300-4034	47μF 20V (T)
Q1	375-1052	2N6387
Q2	375-1014	MPS6518
Q3	375-1012	MPS6512
J1-4	350-0009	30 PIN CONN
ACU CONN, MODEM CONN.	350-2055	25 PIN CONN
L37, 51, 52, 92	376-9011	40 PIN SOCKET
L38, 53	376-9015	28 PIN SOCKET
L49, 50	376-9003	24 PIN SOCKET
L101-104, 107-110, 119-122, 125-128, J5	376-9005	16 PIN SOCKET
XTAL	321-0030	9.8304 MHz
-12V TP	654-1192	SIDE TERM



MNEMONIC	COORDINATE
-RD PP1	5A9
-RD PP2	5A9
-RD PP3	5A9
RPP1M	4D11
RPP2M	4D11
RPP3M	4D11
-RST PP0	4G1
-RST PP1	4F1
-RST PP2	4F1
-RST PP3	4E1
SC0,1	7A10
SCA	8A9
SCF	8E11
SGD	9F1
STB PP1	4C1
STB PP2	4C1
STB PP3	4C1
SYSTEM INITIALIZE	5G4
WPP1M	4C11
WPP2M	4C11
WPP3M	4C11
WR PP1	5A9
WR PP2	5A9
WR PP3	5A9

LOCATION	I.C. TYPE	SPARE
L34	74LS00	1
L95	74LS00	2
L65	74LS02	2
L15	7404	2
L33	74LS04	3
L39	74LS08	1
L57	74LS08	1
L61	74LS08	2
L2	74LS32	2
L42	74LS32	1
L96	74LS32	1
L79	74S37	3
L4	7474	1
L150	74LS74	1
L66	74LS75	1
L45	7486	2
L32	74LS139	1
L139A	74LS139	1
L114	74LS244	4
L136	74LS266	1
L152	74367	2

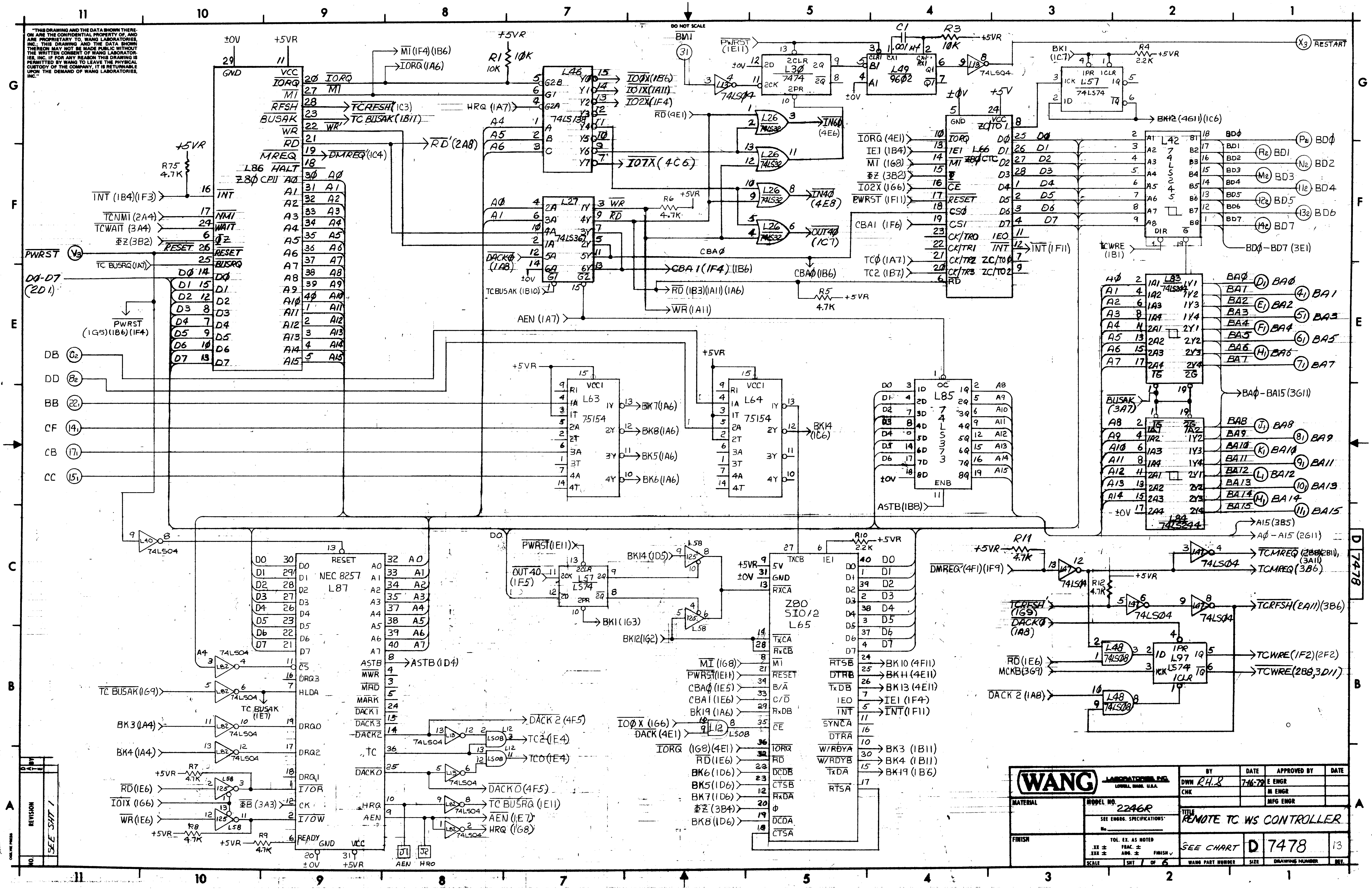
MNEMONIC	COORDINATE
AA	8F11
AB	8F11
ACR	8D11
BA	8A9
BA1-BA12	6A8
BB	8D11
BMA0-BMA18	5D1
BMDH0-BMDH7	6C1
BMDL0-BMDL7	6D1
CA	8A8
CB	8E11
CC	8E11
CCB1,2	3G1
CD	8A9
-CM ERROR	5E1
CP	8E11
CRQ	9D1
DAB0-DAB2	3D11
DAB3-DAB7	3F1
DB	8D11
DD	8D11
DLO	9G5
DMA PP1	4D1
DMA PP2	4D1
DMA PP3	4D1
DPR	9D1
DSS	9G5
FGD	9F1
IMA	5G7
I/O "04"	8D1
LDB0-LDB15	6A5
LPDB0-LPDB7	5D11
MCOS	5G7
MGS	5G3
MM0-MM15	6G5
MMCB1	5F1
MMCB2	5F1
MMP	5G7
MIPP1-MIPP3	4F11
MREQ PP1	4E11
MREQ PP2	4E11
MREQ PP3	4E11
MRI	5G6
NB1-8	9E1
PCBCS	5G5
PCBGS	3B11
PCBRI	5G4
PCBSI	3C1
PPDB0-PPDB7	8F1
PND	9G6
+PP DMA READ	4G5
+PP DMA WRITE	4G5
-PP1 CLK	1B7
PP1 INPUT RDY	5G11
-PP1 REQ	5G9
PP1 PCB RDY	5F11
PP2 INPUT RDY	5G11
PP2 REQ	5G9
PP2 PCB RDY	5F11
PP3 INPUT RDY	5G11
PP3 REQ	5G9
PP3 PCB RDY	5F11
PWI	9G5

E-REV 5

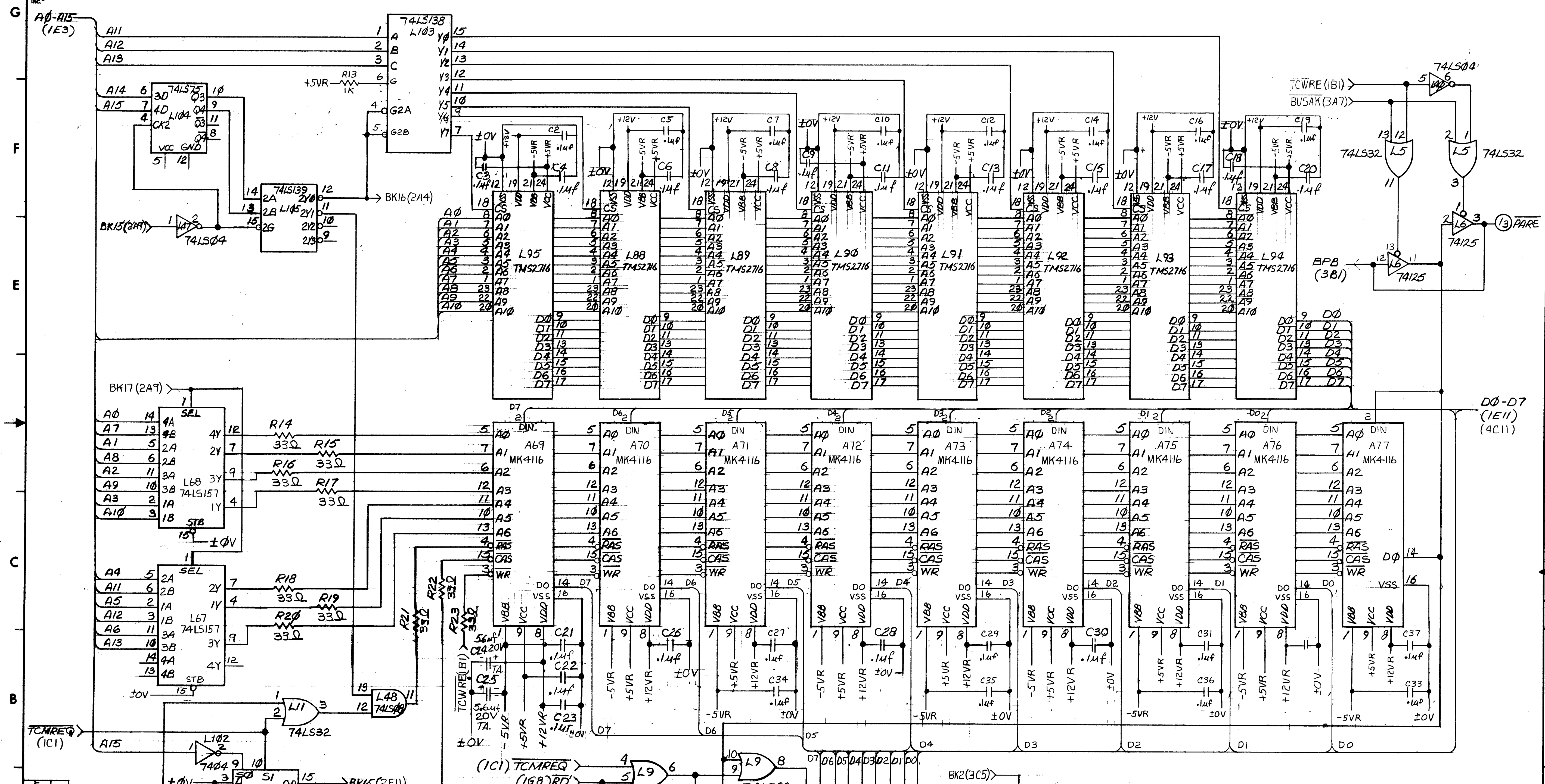
REVISION: 2/19/79; 3/19/79; 4/19/79; 2-14-79; 2-14-79; 3-31-79; 3-31-79 REV. PER 10532; 3-31-79 REV. PER 10997; 3-31-79 REV. PER 11113; 5-21-79 REV. PER ECN 11531/11714; 9-11-79 REV. PER ECN# 12190; 9-11-79 REVISED PER ECN# 12275; 9-11-79 REVISED PER ECN# 12330; 12-5-79 REVISED PER ECN# 13403; 12-7-79 REVISED PER ECN# 13713; 4-2-80 REVISED PER ECN# 14158; 11-5-80 REVISED PER ECN# 16042; 11-13-80 REVISED PER ECO# 16452; 3-5-81 REVISED PER ECO# 17798; 4-22-81 REV. PER ECO# 18356, 18707, 18923

WANG LABORATORIES INC. LOWELL, MASS. U.S.A.

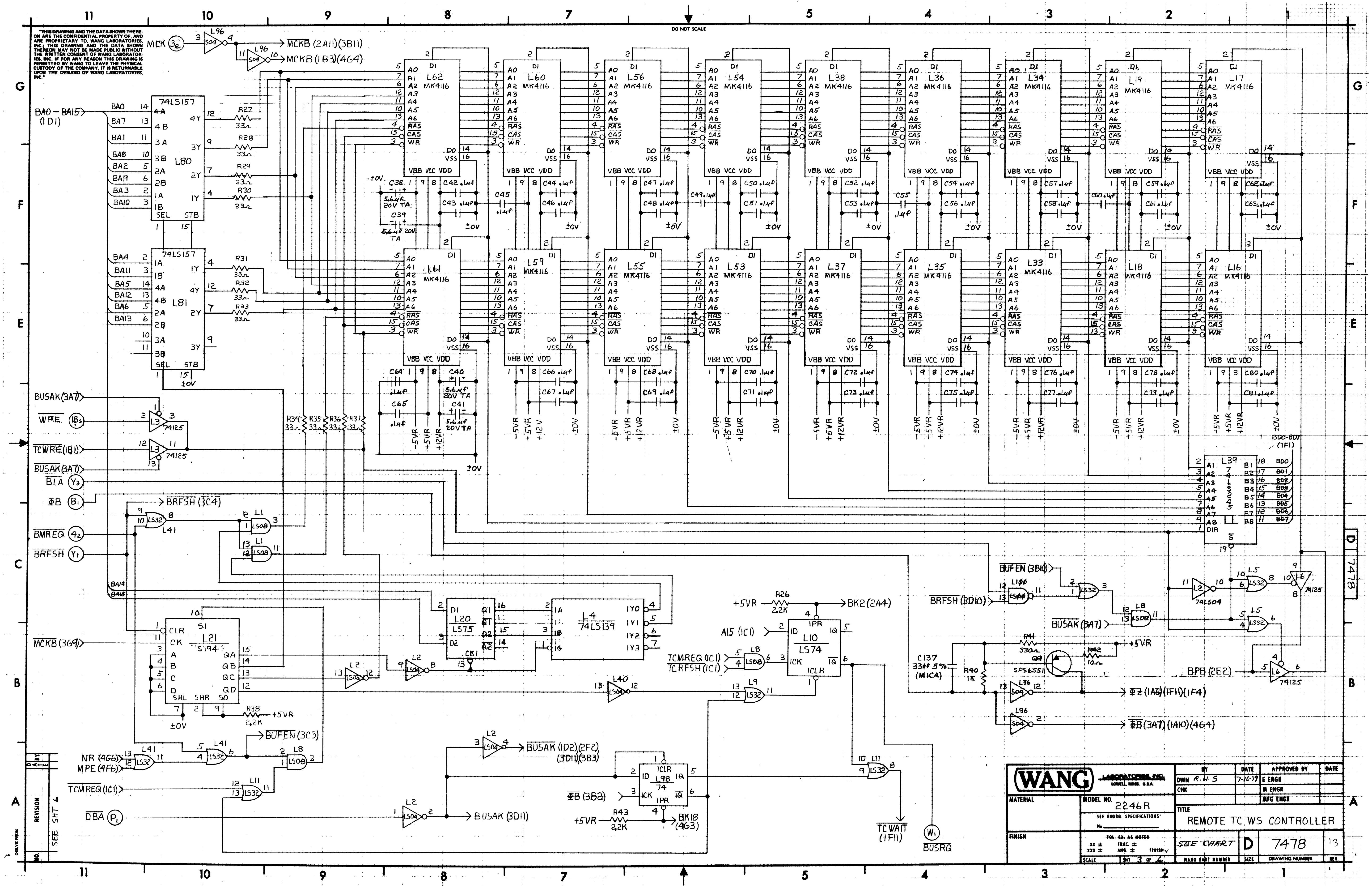
MODEL NO.	2200VS
DWN	2/19/79
CHK	G.D 4/19/79
E ENGR	Osborne 4/19/79
TITLE	TCP, IOP MOTHERBOARD (16K RAM TYPE)
WANG PART NUMBER	SEE CHART
SIZE	D
DRAWING NUMBER	7426
REV.	19
SHT	11 OF 11


WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
REMOTE TC WS CONTROLLER
MODEL NO. 2246R
D 7478
SHT 1 OF 6
DWN R.H.S. 7-16-79
SEE CHART
DO NOT SCALE
L86 Z80 CPU
L87 NEC 8257
L65 Z80 SIO/2
L66 Z80 CTC
L46 74LS138
L27 74LS367
L42 74LS245
L85 74LS373
L63 75154
L64 75154
L83 74LS244
L84 74LS244
L49 9602
L30 7474
L57 74LS74
L97 74LS74
L26 74LS32
L48 74LS08
L82 74LS04
L58 74LS125

DO NOT SCALE


AØ-A15 (1E3)
74LS138 L103
74LS75 L104
74LS139 L105
74LS04
BK15 (2A9)
BK16 (2A4)
L95 TMS2716
L88 TMS2716
L89 TMS2716
L90 TMS2716
L91 TMS2716
L92 TMS2716
L93 TMS2716
L94 TMS2716
TCWRE (1B1)
BUSAK (3A7)
74LS32
74125
PARE
BPB (3B1)
BK17 (2A9)
L68 74LS157
L67 74LS157
A69 MK4116
A70 MK4116
A71 MK4116
A72 MK4116
A73 MK4116
A74 MK4116
A75 MK4116
A76 MK4116
A77 MK4116
DØ-D7 (1E11) (4C11)
TCMREQ (1C1)
L11 74LS32
L48
L102 7404
745194 L99
BK15 (2E11)
BK17 (2D11)
TCRFSH (1C1)
MCKB (3G9)
(1C1) TCMREQ
(1G8) RD
L9 74LS32
TCWRE (1B1)
74125
L7 74LS280
Σ EVEN
Σ ODD
BK2 (3C5)
L10 74LS74
TCNMI (1F11)
BK16 (2F9)
REVISION
SEE SHT 1

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.		BY	DATE	APPROVED BY	DATE	
		DWN R.H.S.	7-16-79	E ENGR		
		CHK		M ENGR		
				MFG ENGR		
MATERIAL	MODEL NO. 2246R SEE ENGRG. SPECIFICATIONS No.	TITLE REMOTE TC WS CONTROLLER				
FINISH	TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH √	SEE CHART	D	7478	13	
	SCALE / SHT 2 OF 6	WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.	



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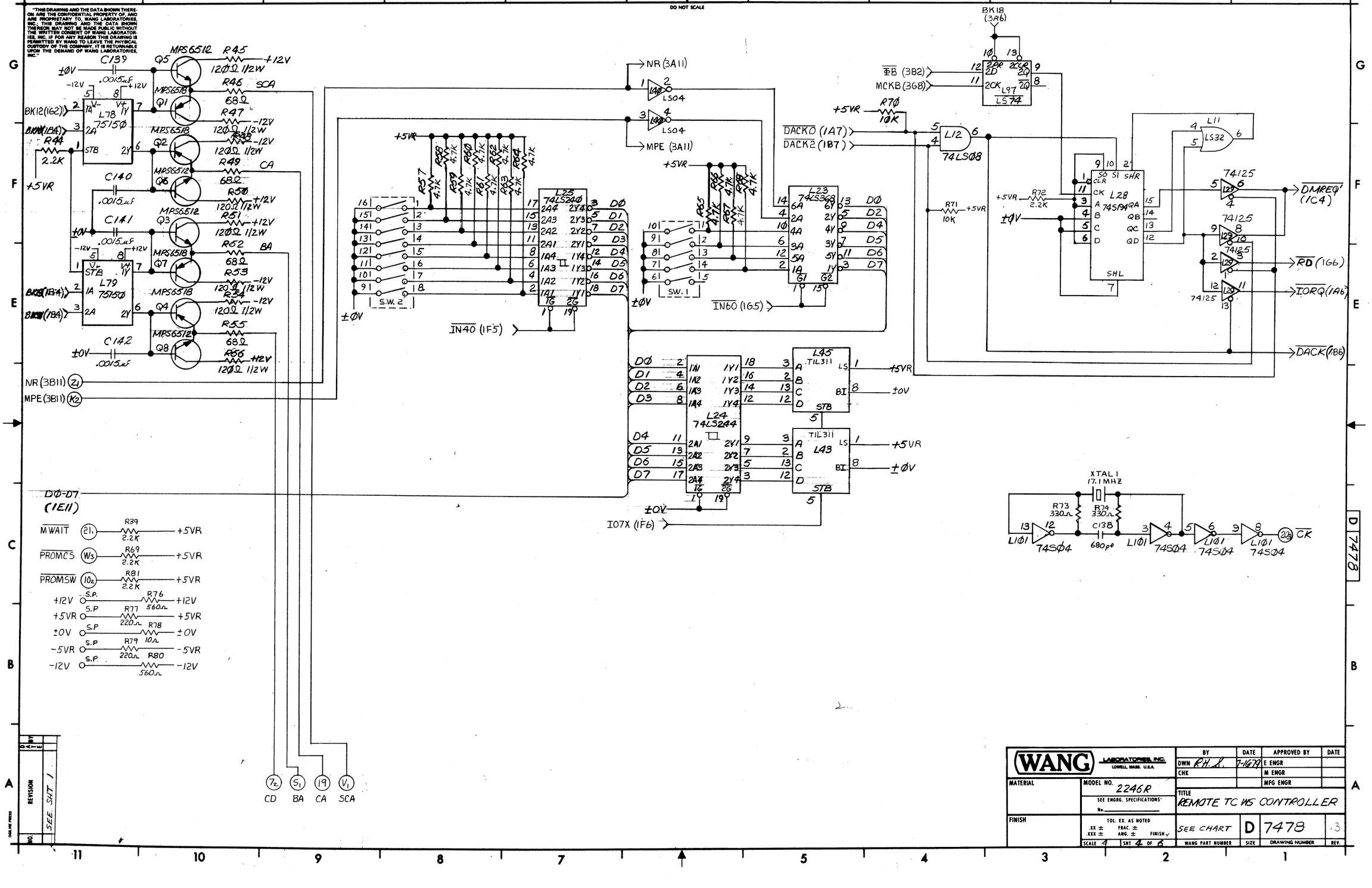
DO NOT SCALE
MCK
MCKB (2A11)(3B11)
MCKB (1B3)(4G4)
BA0 – BA15 (1D1)
74LS157
L80
L81
MK4116
L62 L60 L56 L54 L38 L36 L34 L19 L17
L61 L59 L55 L53 L37 L35 L33 L18 L16
BUSAK (3A7)
WRE
TCWRE (1B1)
BLA
ΦB
BRFSH (3C4)
BMREQ
BRFSH
MCKB (3G9)
L21 S194
L20 LS75
L4 74LS139
L10 LS74
A15 (1C1)
TCMREQ (1C1)
TCRFSH (1C1)
+5VR
BK2 (2A4)
BUFEN (3B10)
BRFSH (3D10)
BUSAK (3A7)
BPB (2E2)
Q8 SPS6551
ΦZ (1A8)(1F11)(1F4)
ΦB (3A7)(1A10)(4G4)
L39
BD0-BD7 (1F1)
NR (4G6)
MPE (4F6)
BUFEN (3C3)
TCMREQ (1C1)
DBA
BUSAK (1D2)(2F2)(3D11)(3B3)
BUSAK (3D11)
ΦB (3B2)
L98 74
BK18 (4G3)
TC WAIT (1F11)
BUSRQ
D 7478
REVISION
SEE SHT 6
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
DWN R.H.S 7-16-79
MODEL NO. 2246R
TITLE REMOTE TC WS CONTROLLER
SEE CHART
D 7478 13
SHT 3 OF 6

DO NOT SCALE



REVISION	BY	DATE
SEE SHT 1		

	BY	DATE	APPROVED BY	DATE
DWN	R.H.S.	7-16-79	E ENGR	
CHK			M ENGR	
			MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL

MODEL NO. 2246R
SEE ENGRG. SPECIFICATIONS
No.

FINISH

TOL. EX. AS NOTED
.XX ± FRAC. ±
.XXX ± ANG. ± FINISH √

TITLE REMOTE TC MS CONTROLLER

SCALE 4 SHT 4 OF 6

SEE CHART | D | 7478 | 13
WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.

D 7478

DO NOT SCALE

7478 R2

REVISION	BY	DATE
SEE SHT 6		

	BY	DATE	APPROVED BY	DATE
DWN	R.A.L.	7/6/78	E ENGR	
CHK			M ENGR	
			MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL

MODEL NO. 2246R

SEE ENGRG. SPECIFICATIONS No.

FINISH

TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH √

SCALE SHT 5 OF 6

TITLE REMOTE TC WS CONTROLLER

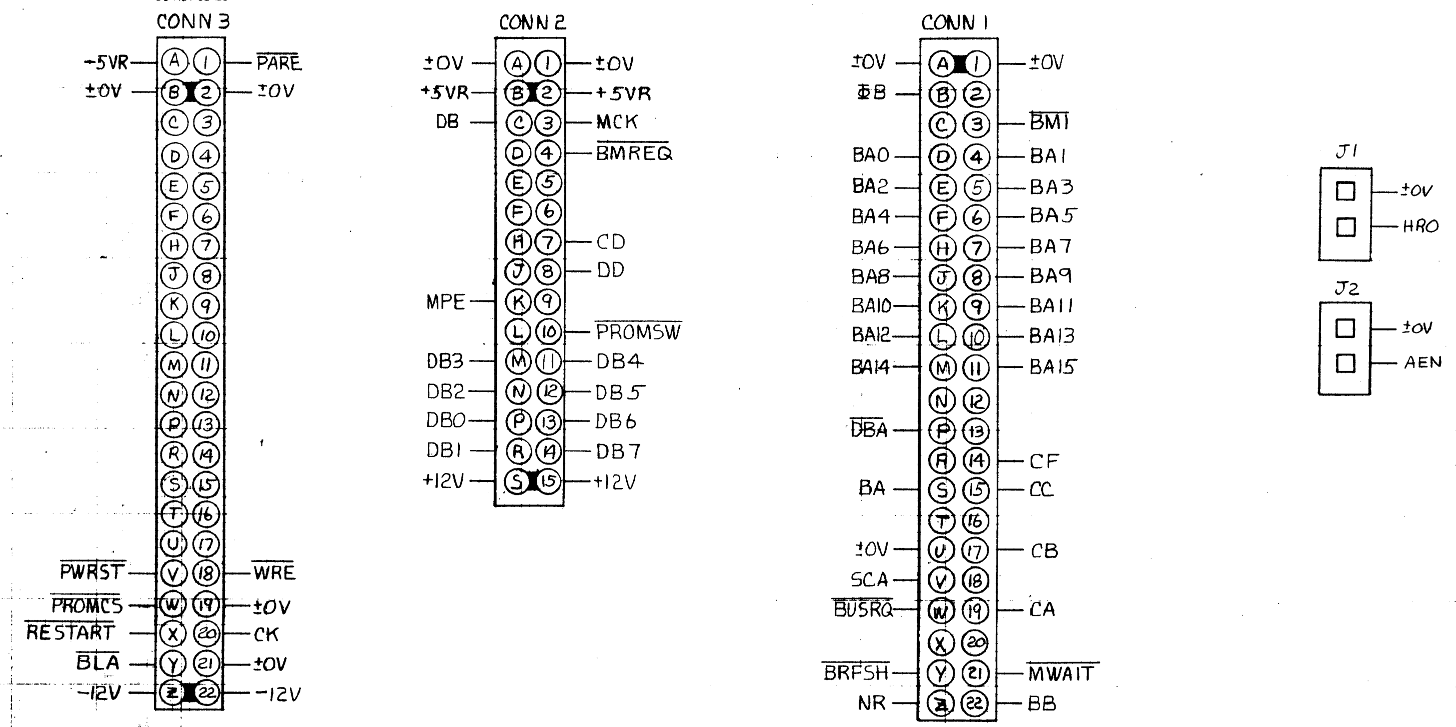
SEE CHART | D | 7478 | 13

WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.

I.C. LOCATION	TYPE	W.L. PART NO.
L1,8,12,48	74LS08	376-0153
L2,13,40,47,82,	74LS04	376-0180
L3,6,29,58	74125	376-0324
L4,105	74LS139	376-0226
L5,9,11,26,41	74LS32	376-0211
L7	74LS280	376-0242
L10,57,97,98	74LS74	376-0155
L14,15,31,32,50,52	SPARES	
L16-19,33-38,53-56,59-62,69-77	MK4116	SEE CHART
L20,104	74LS75	376-0312
L21,28,99	74S194	376-0221
L23	74LS369	376-0193
L24,83,84	74LS244	376-0288
L25	74LS240	376-0297
L27	74LS367	376-0192
L30	7474	376-0006
L39,42	74LS245	376-0285
L43,45	TIL 311	SEE CHART
L46,103	74LS138	376-0294
L49	9602	376-0104
L63,64	75154	376-0077
L65	Z80 SIO/2	SEE CHART
L66	Z80 CTC	SEE CHART
L67,68,80,81	74LS157	376-0216
L78,79	75150	376-0076
L85	74LS373	376-0310
L86	Z80CPU	SEE CHART
L87	NEC 8257	SEE CHART
L88-95	2716	SEE CHART
L100	74LS00	376-0207
L102	7404	376-0010
L101,96	74S04	376-0180
L16-19,33-38,53-56,59-62,68-77	16 PIN SKT	376-9002
L88-95	24 PIN SKT	376-9003
L65,86,87	40 PIN SKT	376-9011
L66	28 PIN SKT	376-9015
L43,45	14 PIN SKT	376-9001

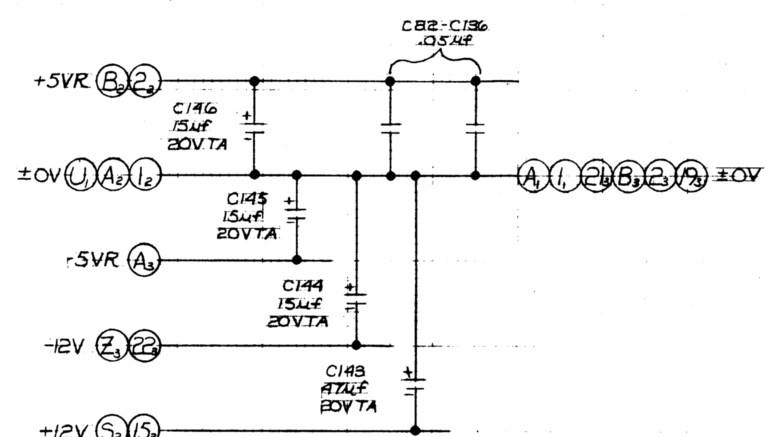
COMPONENT	TYPE	W.L. PART NO.
R1,3,25,70,71	10K 1/4W 10%	330-4010
R4,10,24,26,38,39,43,44,69,72,81	2.2K 1/4W 10%	330-3022
R5-9,11,12,57-68,75	4.7K 1/4W 10%	330-3047
R13,40	1K 1/4W 10%	330-3010
R14-23,27-37	33Ω 1/4W 10%	330-1033
R41,73,74	330Ω 1/4W 10%	330-2033
R42,78	10Ω 1/4W 10%	330-1010
R45,47,48,50,51,53,54,56	120Ω 1/2W 10%	331-2012
R46,49,52,55	68Ω 1/4W 10%	330-1068
R77,79	220Ω 1/4W 10%	330-2022
R76,80	560Ω 1/4W 10%	330-2056
C1	.001µf 500V 10%	300-1906
C2-23,26-37,42-81	.1µf 50V (CER.)	300-1930
C24,25,38-41	5.6µf 35V 10%(TA)	300-4017
C137	33µf 500V 5% MICA	300-5016
C138,139-142	680pf 300V 10%	300-1680
C139-142	.0015µf (C)	300-1907
C143	47µf 20V TA	300-4034
C144-146	15µf 20V TA	300-4022
C82-136	.05µf 12V CER	300-1900
Q1,2,4,7	MPS 6518	375-1019
Q3,5,6,8	MPS 6512	375-1012
Q9	SPS 6551	375-1050
SW1	SPST 5 POS	325-1501
SW2	SPST 8 POS	325-1503
XTAL	17 MHZ	321-0018
J1,2	2 PIN HEADER	350-0203

MNEMONIC	COORD
AEN	1A8
BAL	4A9
BA0-BA15	1E11
BB	1D11
BLA	3D11
BMI	1G11
BMREQ	3C11
BRFSH	3C11
BUSRQ	3A4
BD0-BD7	1F1
CA	4A9
CB	1D11
CC	1D11
CD	4A9
CR	4C1
CF	1D11
DB	1D11
DBA	3A11
DD	1D11
HRO	1A8
BB	3D11
MCK	3G10
MPE	4D11
MWAIT	4C11
NR	4D11
PARE	2E1
PROMCS	4C11
PROMSW	4C11
PWRST	1F11
RESTART	1G1
SCA	4A9
WRE	3D11



210	209	L16-19, 33-38,53-56, 59-62,69-77	L43,45	L65	L66	L86	L87	L88	L89	L90	L91	L92	L93	L94	L95
		210 = 209 +378 OR 377													
7478-A	7478	377-0345		377-0374	377-0343	377-0344	377-0369	378-4134 R6	378-4133 R6	378-4132 R6	378-4131 R6	378-4130 R6	378-4129 R6	378-4128 R2	378-4135 R6
7478-B	7478	377-0345		377-0374	377-0343	377-0344	377-0369							378-4136	
7478-C	7478	377-0345	340-0015	377-0374	377-0343	377-0344	377-0369							378-4164	378-4165
7478-D	7478	377-0345	340-0015	377-0374	377-0343	377-0344	377-0369							378-4212 R1	
7478-E	7478	377-0345	340-0015	377-0374	377-0343	377-0344	377-0369					378-4211	378-4210	378-4209	
7478-F	7478	377-0345	340-0015	377-0374	377-0343	377-0344	377-0369					378-4215	378-4214	378-4213	

LOCATION	TYPE	SPARES
L1 L8 L48	74LS08	2 1 1
L2 L13 L40 L96 L101	74LS04	1 2 1 2 2
L3	74125	1
L4 L105	74LS139	1 1
L20 L104	74LS75	1 1
L30	7474	1
L41	74LS32	1
L49	9602	1
L98	74LS74	1
L100	74LS00	3
L102	7404	5



E REV 4

REVISION	BY	DATE
ORIGINATED PER DWR # E674	R.H.S.	7-16-79
REVISED PER ECN # 11741 12082	R.H.S.	7-16-79
REVISED PER ECN # 12382		9-12-79
REVISED PER ECN # 12609		10-2-79

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

BY		DATE	APPROVED BY		DATE
DWN	A.B.	11-15-79	E ENGR	Ken O	2/20/80
CHK	J.J.A.	2-20-80	M ENGR		
			MFG ENGR		

MATERIAL

MODEL NO. 2246R

SEE ENGRG. SPECIFICATIONS No.

TITLE: REMOTE TC WS CONTROLLER

FINISH

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH √

SCALE | SHT 6 OF 6

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	D	7478	13

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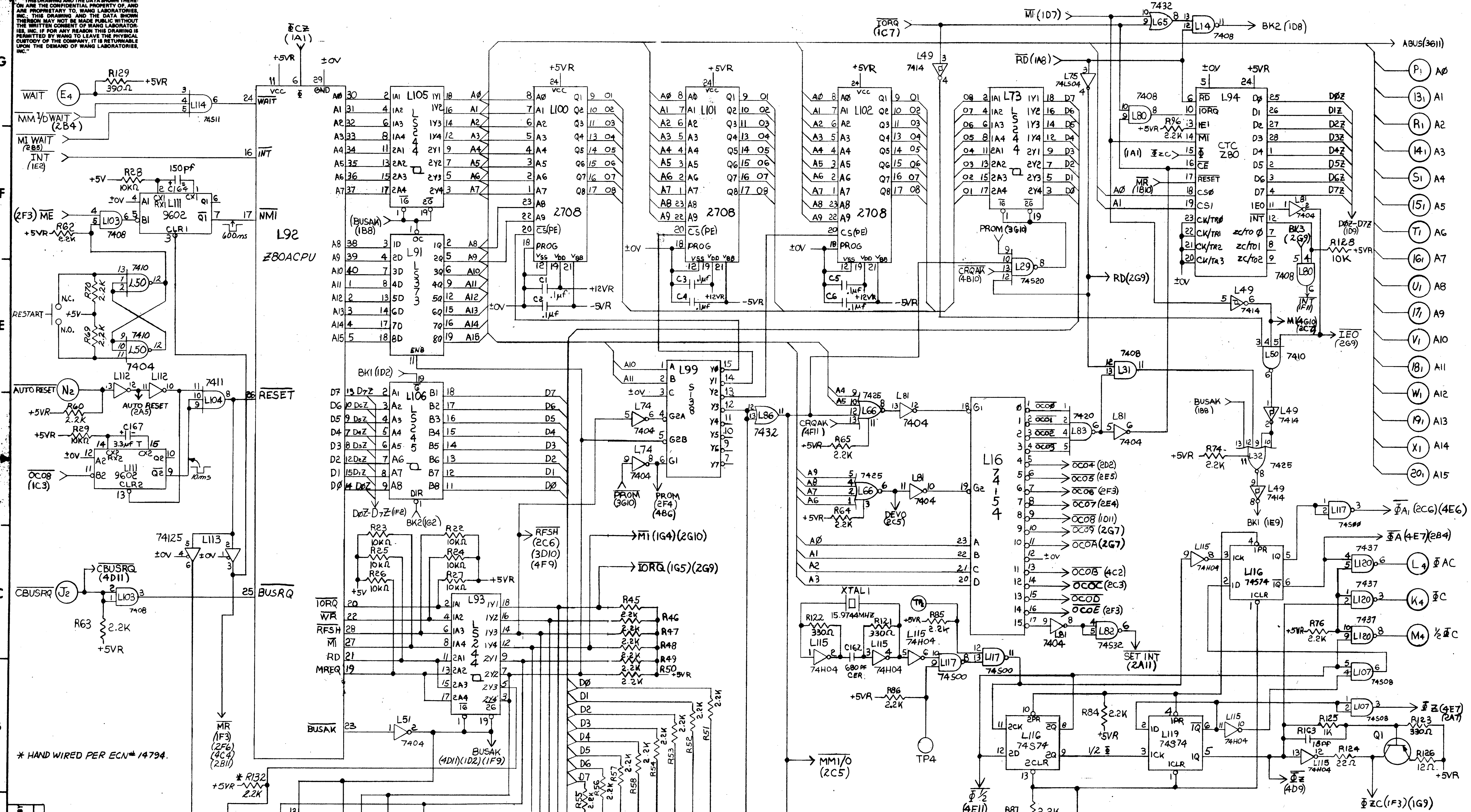
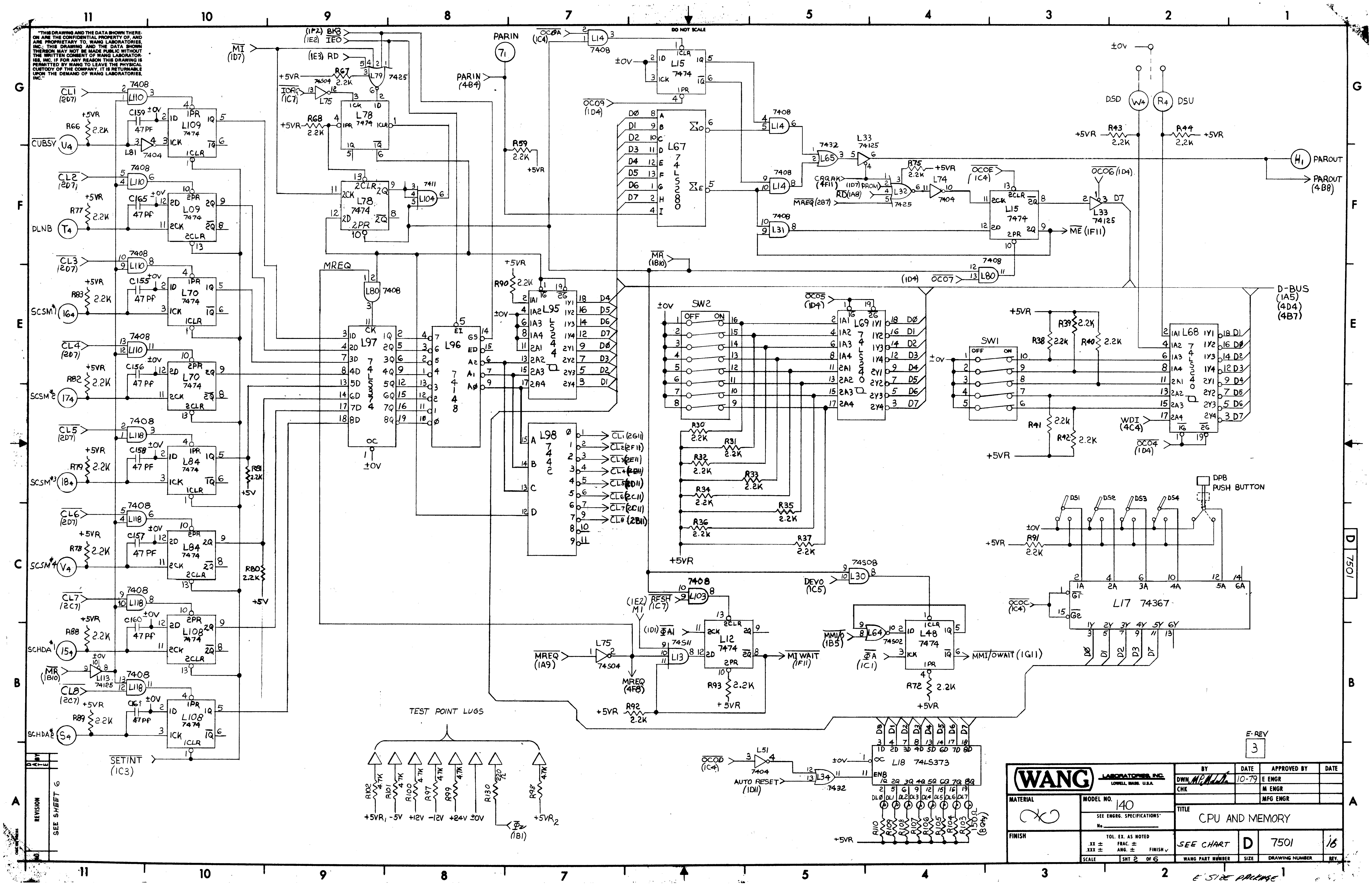
DO NOT SCALE



WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.		BY / DATE	APPROVED BY / DATE
		DWN [signature] 10-79	E ENGR
		CHK	M ENGR
MATERIAL	MODEL NO. 140		MFG ENGR
	SEE ENGRG. SPECIFICATIONS No.	TITLE CPU AND MEMORY	
FINISH	TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH ✓	SEE CHART — WANG PART NUMBER	D — SIZE; 7501 — DRAWING NUMBER; 16 — REV.
	SCALE; SHT 1 OF 6		

ECN

E SIZE ARCHIVE



BY	DATE	APPROVED BY	DATE
DWN	10-79	E ENGR	
CHK		M ENGR	
		MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL

MODEL NO. 140

SEE ENGRG. SPECIFICATIONS No.

FINISH

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH

SCALE SHT 2 OF 6

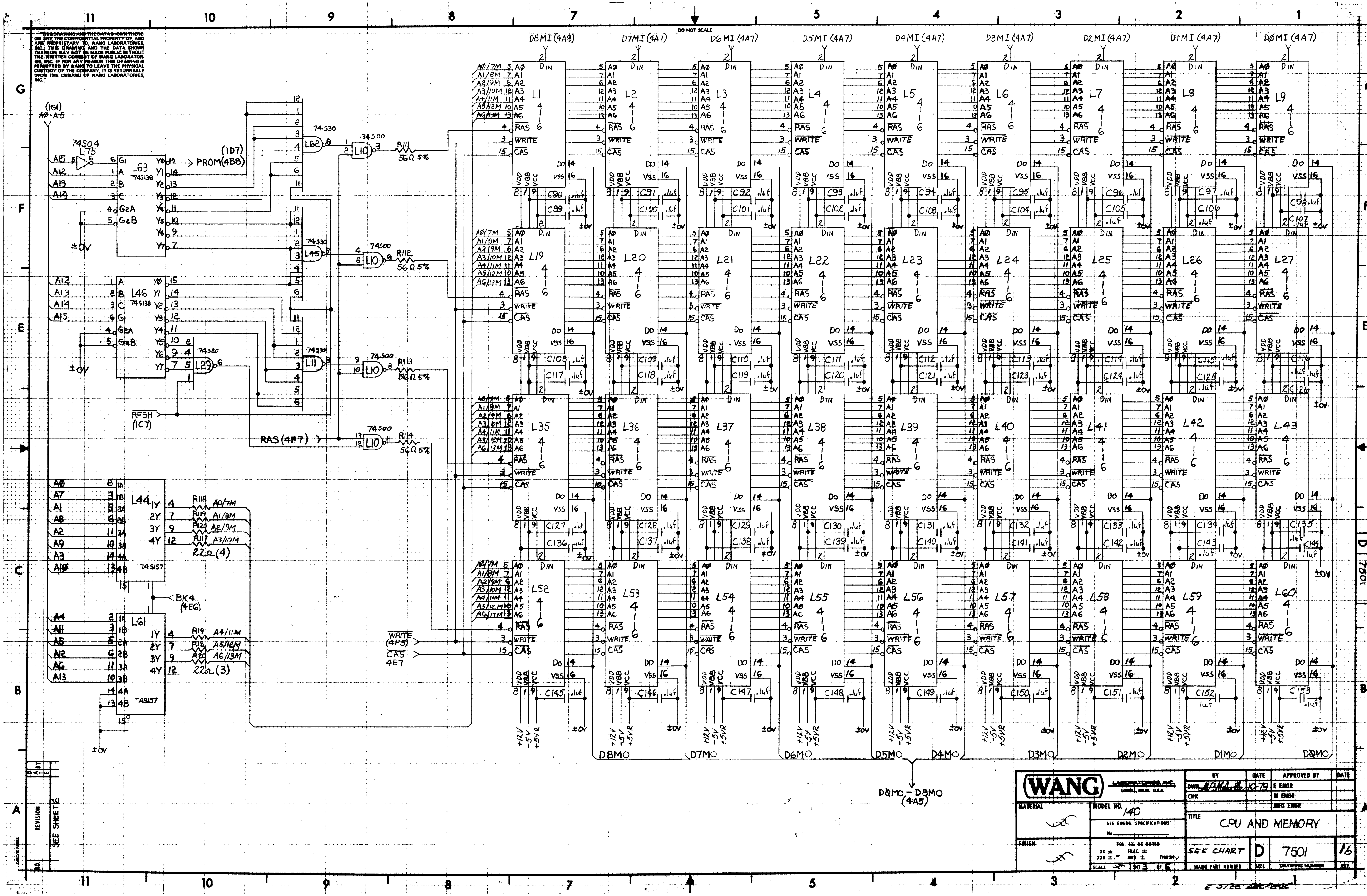
TITLE CPU AND MEMORY

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	D	7501	16

REVISION SEE SHEET 6

E SIZE PACKAGE

DO NOT SCALE



D8MI (4A8)
D7MI (4A7)
D6MI (4A7)
D5MI (4A7)
D4MI (4A7)
D3MI (4A7)
D2MI (4A7)
D1MI (4A7)
DØMI (4A7)
(1G1)
AØ - A15
74S04
L75
L63
74S138
PROM (4B8)
(1D7)
L46
74S138
74S30
L62
74S00
L10
R111
56Ω 5%
L45
R112
L11
74S20
L29
R113
RFSH
(1C7)
RAS (4F7)
R114
L44
74S157
R118
R119
R120
R117
A0/7M
A1/8M
A2/9M
A3/10M
22Ω (4)
BK4
(4E6)
L61
74S157
A4/11M
A5/12M
A6/13M
22Ω (3)
WRITE
(4F5)
CAS
4E7
L1
L2
L3
L4
L5
L6
L7
L8
L9
L19
L20
L21
L22
L23
L24
L25
L26
L27
L35
L36
L37
L38
L39
L40
L41
L42
L43
L52
L53
L54
L55
L56
L57
L58
L59
L60
4116
DIN
DO
RAS
WRITE
CAS
VDD
VBB
VCC
VSS
.1uf
±0V
+12V
-5V
+5VR
D8MO
D7MO
D6MO
D5MO
D4MO
D3MO
D2MO
D1MO
DØMO
DØMO - D8MO
(4A5)
SEE SHEET 6
REVISION

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN		10-79	E ENGR	
CHK			M ENGR	
			MFG ENGR	

MATERIAL

MODEL NO. 140

SEE ENGRG. SPECIFICATIONS

TITLE: CPU AND MEMORY

FINISH

TOL. EX. AS NOTED

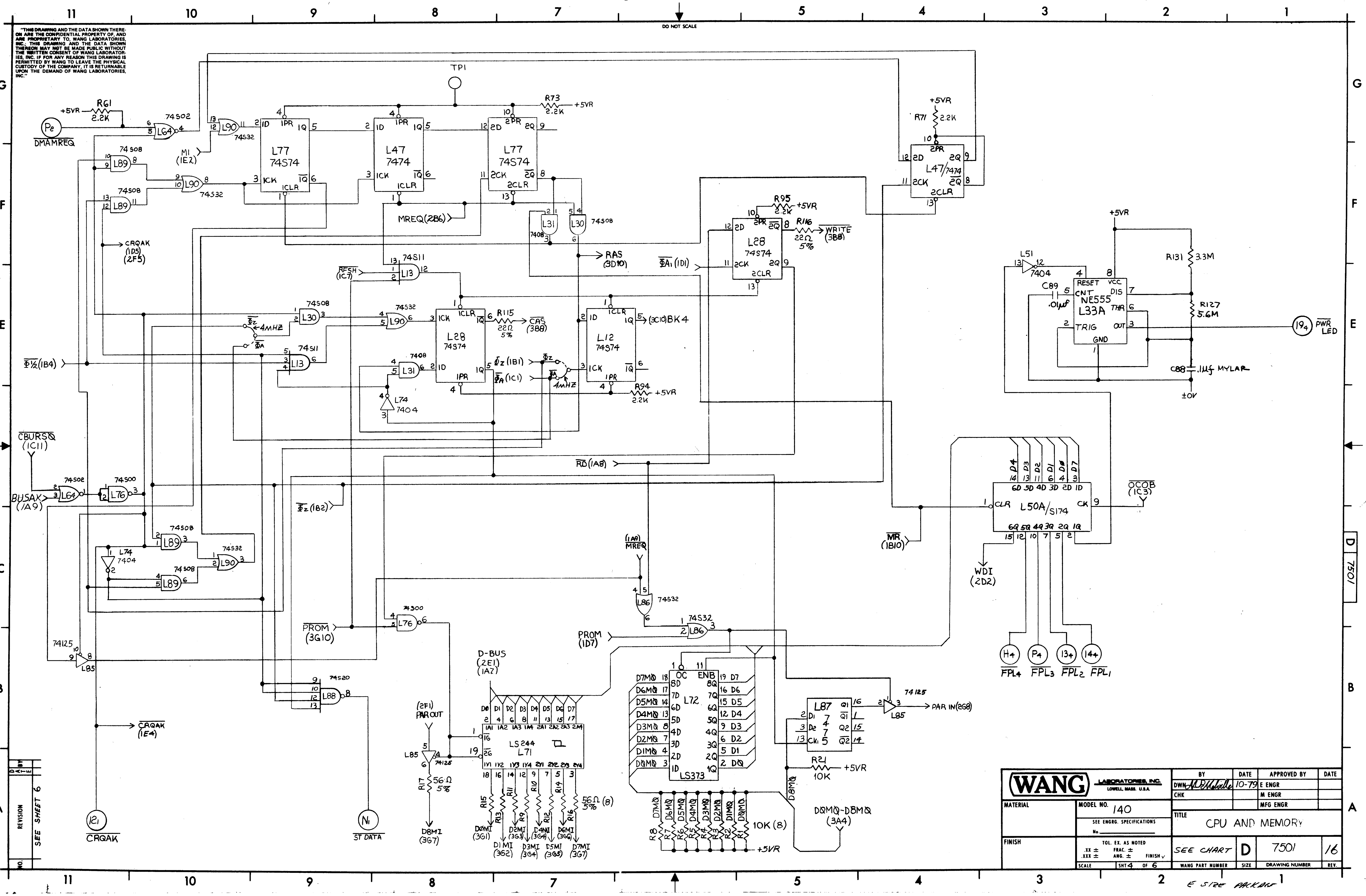
SCALE — SHT 3 OF 6

SEE CHART — WANG PART NUMBER

SIZE: D — DRAWING NUMBER: 7501 — REV: 1б

D 7501

E SIZE PACKAGE



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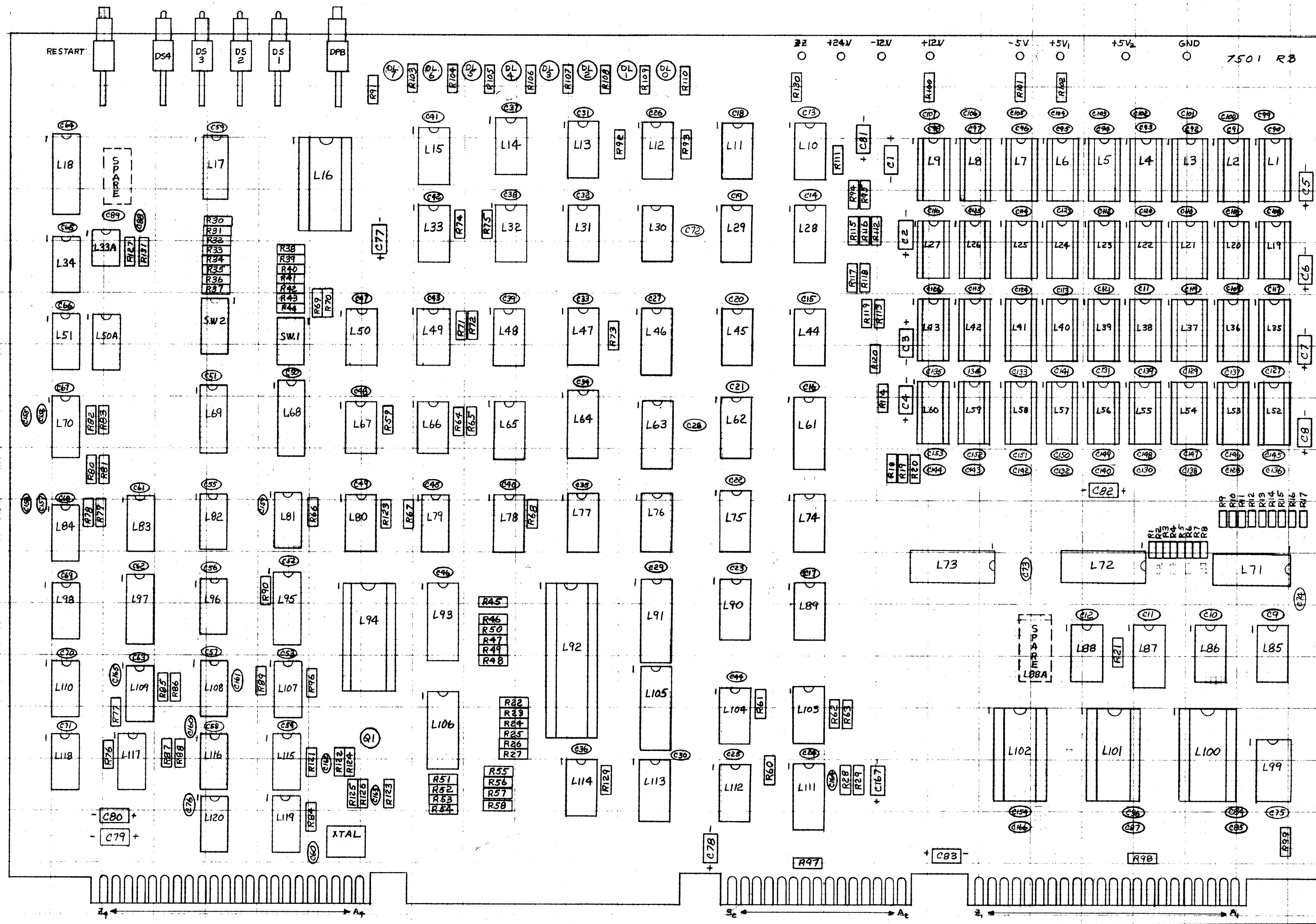
TP1
R61 2.2K
+5VR
DMAMREQ
L64 74S02
L90 74S32
M1 (1E2)
L77 74S74
L47 7474
R73 2.2K
L89 74S08
MREQ(2B6)
L31
L30 74S08
RAS (3D10)
R95 2.2K
R116 22Ω 5%
WRITE (3B8)
L28 74S74
Φ̄A1 (1D1)
R71 2.2K
L47/7474
+5VR
CRQAK (1D5) (2F5)
RFSH (1C7)
L13 74S11
L51 7404
C89 .01µf
NE555 L33A
R131 3.3M
R127 5.6M
PWR LED
C88 .1µf MYLAR
±0V
Φz 4MHZ ΦA
L30 74S08
L90 74S32
L28 74S74
R115 22Ω 5%
CAS (3B8)
L12 74S74
(3C10) BK4
Φ½ (1B4)
L31 7408
Φz (1B1)
ΦA (1C1)
R94 2.2K
L74 7404
CBURSQ (1C11)
RD (1A8)
BUSAK (1A9)
L64 74S02
L76 74S00
Φz (1B2)
D4 D3 D2 D1 DØ D7
L50A/S174
OCOB (1C3)
MR (1B10)
WDI (2D2)
L89 74S08
L74 7404
L90 74S32
(1A8) MREQ
L86 74S32
PROM (3G10)
L76 74S00
PROM (1D7)
74125 L85
CRQAK (1E4)
L88 74S20
D-BUS (2E1) (1A7)
(2F1) PAR OUT
LS244 L71
L72 LS373
L87 7475
74125 L85
PAR IN (2G8)
R21 10K
FPL4 FPL3 FPL2 FPL1
R17 56Ω 5%
D8MI (3G7)
56Ω (8) 5%
D2MI (3G1) D1MI (3G2) D3MI (3G4) D5MI (3G5) D7MI (3G7)
10K (8)
+5VR
D0MQ-D8MQ (3A4)
CRQAK
ST DATA
REVISION SEE SHEET 6
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MATERIAL
FINISH
MODEL NO. 140
SEE ENGRG. SPECIFICATIONS
DWN 10-79
TITLE CPU AND MEMORY
SEE CHART D 7501 16
WANG PART NUMBER SIZE DRAWING NUMBER REV.
SHT 4 OF 6
D 7501
E SIZE PACKAGE

DO NOT SCALE



REVISION	
SEE SH 6	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.		BY	DATE	APPROVED BY	DATE
		DWN M. Marella	10/79	E ENGR	
		CHK		M ENGR	
				MFG ENGR	
MATERIAL	MODEL NO. 140	TITLE CPU AND MEMORY			
	SEE ENGRG. SPECIFICATIONS No.				
FINISH	TOL. EX: AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH √	SEE CHART	D	7501	16
	SCALE — SHT 5 OF 6	WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.

E SIZE ARRANGE

DO NOT SCALE

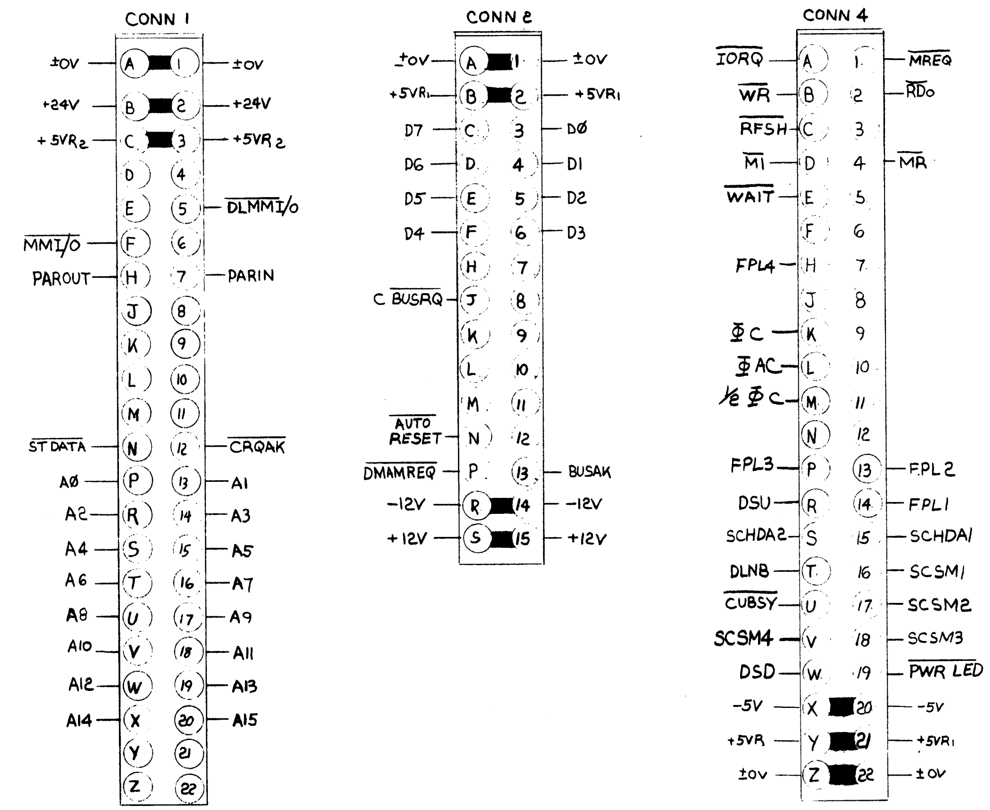
COMPONENT	TYPE	W.L.I *
R1-8, 21-29, 128	10K ¼W 10%	330-4010
R9-17, 111-114	56Ω ¼W 5%	330-1057
R18-20, 115-120, 124	22Ω ¼W 5%	330-1023
R30-96, 132	2.2K ¼W 10%	330-3022
R97-102	4.7K ¼W 10%	330-3047
R103-110	150Ω 1/4W 10%	330-2015
R121-123	330Ω 1/4W 10%	330-2033
R125	1K ¼W 10%	330-3010
R126	12Ω 1/4W 10%	330-1012
R127	5.6MΩ 1/4W 10%	330-6056
R129	390Ω 1/4W 10%	330-2039
R130	220Ω 1/4W 10%	330-2022
R131	3.3MΩ 1/4W 10%	330-6033
C1-8, 77-83	15uf 20V (T)	300-4022
C9-76	.05uf 12V	300-1900
C84-87, 90-121, 123-154, 166	.1uf 50V	300-1930
C88	.1uf (M)	300-2213
C89	.01uf	300-1903
C155-161, 165	47Pf 500V	300-1047
C162	680Pf 500V	300-1680
C163	18 Pf	300-1018
C164	150Pf 500V	300-1150
C167	3.3uf 15V (T)	300-4016

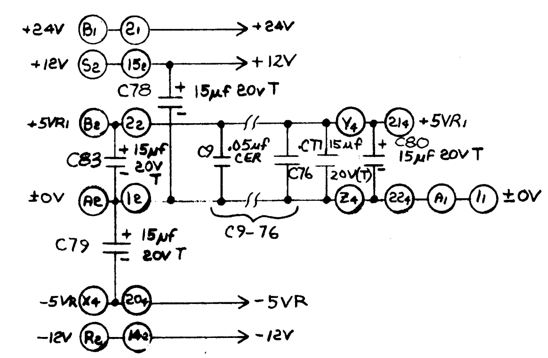
LOCATION	TYPE	SPARE
L30	74S08	1
L33, L85	74125	2, 1
L34, L65	7432	3, 2
L48	74LS74	1
L49, L87	7474	2, 1
L51	7407	3
L64	74S02	1
L75	74S04	2
L76, L117	74S00	2, 1
L79	7425	1
L82	74S37	3
L83	7420	1
L88	74S20	1
L103	7408	1
L107	74S08	2
L112	7404	4
L114	74S11	2
L119	74S74	1
L120	7437	1

LOCATION	W.L. PART NO.	TYPE
L1-9, 19-27, 35-43, 52-60	SEE CHART	MK4116
L10, 76, 117	377-0345	74S00
L11, 45, 62	376-0198	74S30
L12, 28, 48, 77, 116, 119	376-0202	74S74
L13, 114	376-0237	74S11
L14, 31, 80, 103, 110, 118	376-0081	7408
L15, 47, 70, 78, 84, 108, 109	376-0006	7474
L16	376-0090	74154
L17	376-0176	74367
L18, 72, 91	376-0310	74LS373
L29, 88	376-0230	74S20
L30, 89, 107	376-0200	74S08
L32, 66, 79	376-0092	7425
L33, 85, 113	376-0324	74125
L33A	376-0341	NE555
L34, 65, 86	376-0093	7432
L44, 61	376-0217	74S157
L46, 63, 99	376-0298	74S138
L49	376-0139	7414
L50	376-0003	7410
L50A	376-0247	74S174
L51, 74, 81, 112	376-0010	7404
L64	376-0199	74S02
L67	376-0242	74LS280
L68, 69	376-0297	74LS240
L71, 73, 93, 95, 105	376-0288	74LS244
L75	376-0197	74S04
L82	376-0296	74S37
L83	376-0004	7420
L87	376-0013	7475
L90	376-0205	74S32
L92	SEE CHART	Z80ACPU
L94	SEE CHART	Z80A-CTC
L96	376-0171	74148
L97	376-0286	74LS374
L98	376-0008	7442
L100-102	SEE CHART	2708
L104	376-0194	7411
L106	376-0285	74LS245
L111	376-0104	9602
L115	376-0045	74H04
L120	376-0068	7437

210 = 209 + 378 or 377

210	209	L1-9, 19-27, 35-43, 52-60	L92	L94	L100	L101	L102
7501-A	7501	377-0345	377-0368	377-0371	378-3048-R4	378-2666-R3	378-2667-R3
DATA LINK DIAG. 7501-B	7501	377-0345	———	377-0371	378-2492-R1	378-2493-R1	378-2494-R1
[redacted]	7501	377-0345	———	377-0371	378-2495-R1	378-2496-R1	378-2497-R1
7501-D BOOTSTRAP	7501	377-0345		377-0371	378-3047-R4	378-2666-R3	378-2667-R3





MNEMONIC	COORD.
A0-A15	(1F1)
AUTO RESET	(1E11)
BUSAK	(1A9)
CBUSRQ	(1C11)
CRQAK	(4A11)
CUBSY	(4G11)
D0-D7	(1A7)
DLMMI/O	(1A5)
DLNB	(4F11)
DMAMREQ	(4G11)
DSD	(4G2)
DSU	(4G2)
FPL1-FPL4	(4B3)
ΦAC	(1C1)
ΦC	(1C1)
½ΦC	(1C1)

MNEMONIC	COORD.
IORQ	(1A7)
M1	(1A8)
MMI/O	(1A5)
MR	(1A10)
MREQ	(1A9)
PARIN	(4G8)
PAROUT	(4F1)
PWR LED	(4E1)
RD0	(1A10)
RFSH	(1A8)
SCHDA1, SCHDA2	(4B11)
SCSM1-SCSM4	(4D11)
STDATA	(4A9)
WAIT	(1G11)
WR	(1A8)

E-REV 3

REVISION
ORIG'D. PER DWR #E595 APP. RLL 10-79 — 9-21-79
REVISED PER ECN #1571 APP'D RLL 10-79 — 10-10-79
REVISED PER ECN #12676 APP'D RLL 10-79 — 10-10-79
REVISED PER ECN #12767 APP'D RLL 10-79 — 10-10-79
REVISED PER ECN #13072 — 11-8-79
REVISED PER ECN #13389 + 13390 — 11-16-79
REVISED PER ECN #13598 — 12-12-79
REVISED PER ECN #13854, 13930, 13935, 13933 — 1-23-80
REVISED PER ECN #14261 — 2-22-80
REVISED PER ECN #14794 — 3-31-80
REVISED PER ECN #15790 — 4-30-80
REVISED PER ECO #17057 — 12-15-80
REVISED PER ECO #17427 — 1-5-81
REVISED PER ECO #18529 + 18531 — 3-23-81
REVISED PER ECO #18859 — 4-8-81
REVISED PER ECN #15912 — 3-9-80
REVISED PER ECO #18783 — 4-22-81

BY	DATE	APPROVED BY	DATE
DWN [signature]	10-79	E ENGR P.E.P.	10/30/79
CHK RLL	10-79	M ENGR	
		MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL — MODEL NO. 140 — SEE ENGRG. SPECIFICATIONS No.

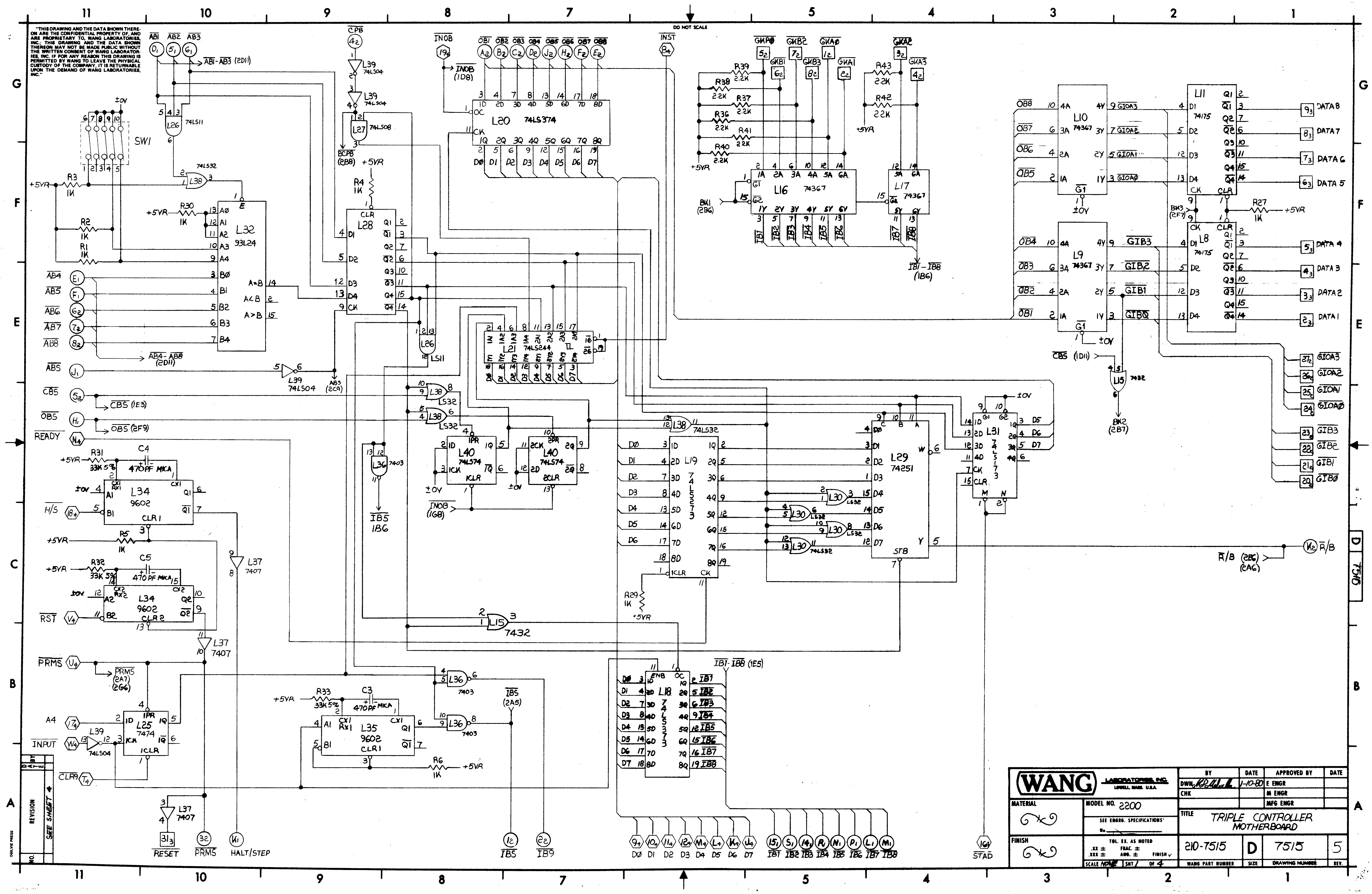
FINISH — TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH

SCALE — SHT 6 OF 6

TITLE: CPU AND MEMORY

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	D	7501	16

E SIZE PACKAGE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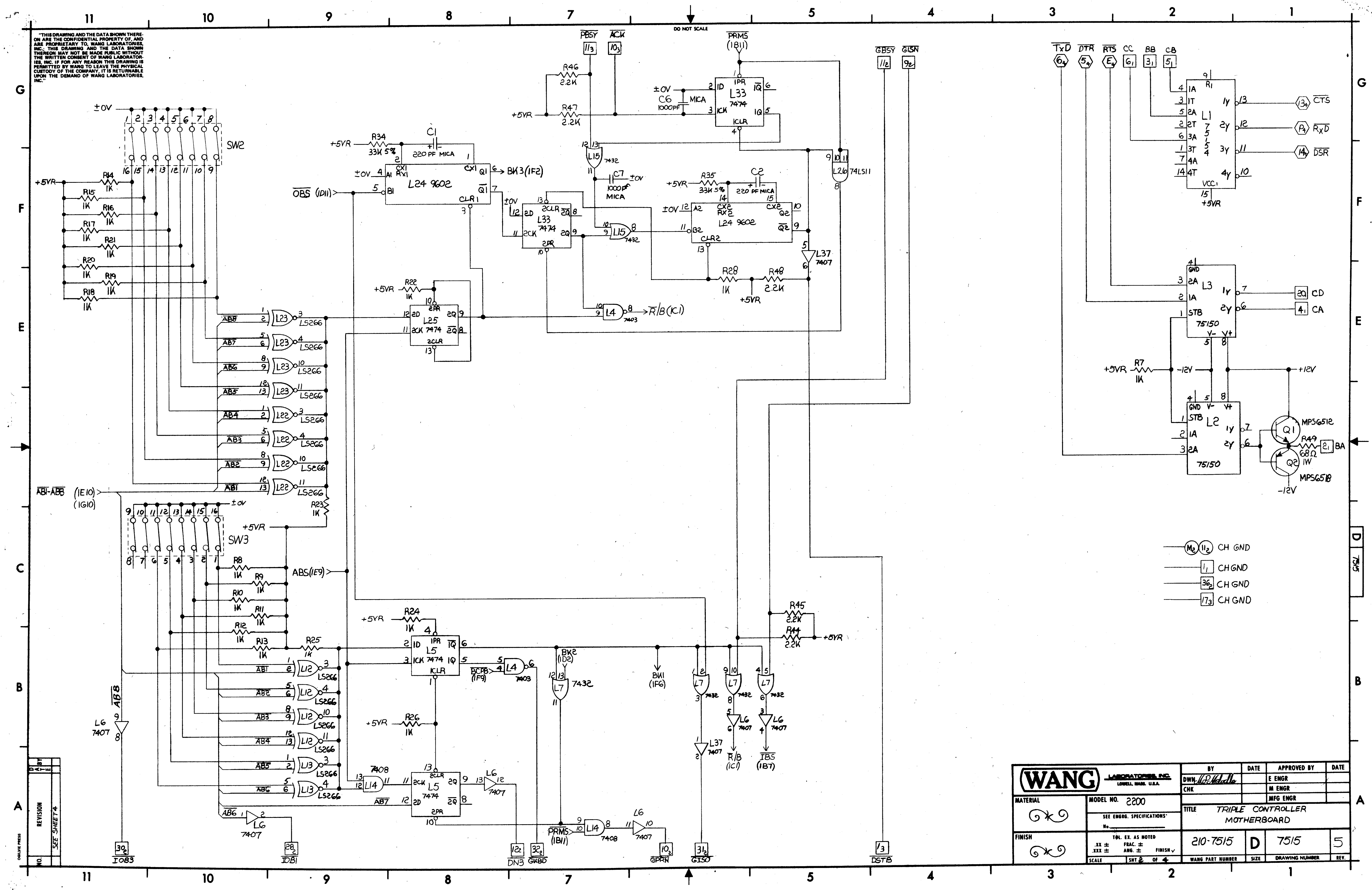
DO NOT SCALE
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MODEL NO. 2200
TITLE TRIPLE CONTROLLER MOTHERBOARD
210-7515
D
7515
5
DATE 1-10-80
SHT 1 OF 4



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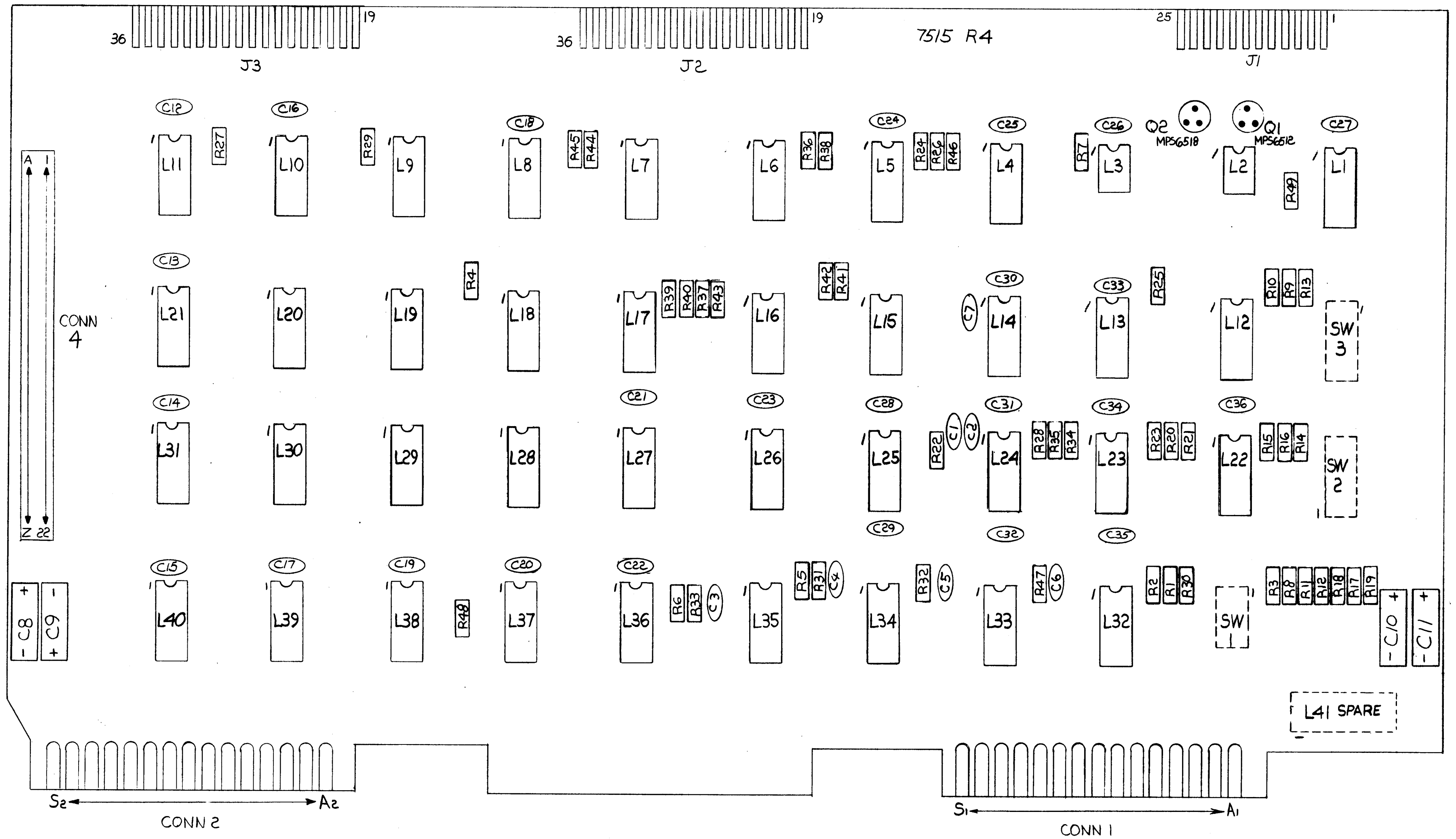
DO NOT SCALE
SW2
SW3
L24 9602
L33 7474
L25 7474
L5 7474
L1 75154
L3 75150
L2 75150
MPS6512
MPS6518
CH GND
REVISION
SEE SHEET 4
WANG LABORATORIES, INC.
LOWELL, MASS. U.S.A.
MATERIAL
FINISH
MODEL NO. 2200
SEE ENGRG. SPECIFICATIONS
TOL. EX. AS NOTED
SCALE
SHT 2 OF 4
BY
DATE
APPROVED BY
DWN
CHK
E ENGR
M ENGR
MFG ENGR
TITLE TRIPLE CONTROLLER MOTHERBOARD
210-7515
D
7515
5
WANG PART NUMBER
SIZE
DRAWING NUMBER
REV.

DO NOT SCALE



REVISION: SEE SHEET 4

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.	BY	DATE	APPROVED BY / DATE
	DWN M.P. Melville	8/79	E ENGR
	CHK		M ENGR
MATERIAL —	MODEL NO. 2200		MFG ENGR
FINISH —	SEE ENGRG. SPECIFICATIONS No.	TITLE	TRIPEL CONTROLLER MOTHERBOARD
TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH ✓	WANG PART NUMBER 210-7515	SIZE D	DRAWING NUMBER 7515 / REV. 5
SCALE	SHT 3 OF 4		

D 7515

"THIS DRAWING AND THE DATA SHOWN THEREON ARE THE CONFIDENTIAL PROPERTY OF, AND ARE PROPRIETARY TO, WANG LABORATORIES, INC.; THIS DRAWING AND THE DATA SHOWN THEREON MAY NOT BE MADE PUBLIC WITHOUT THE WRITTEN CONSENT OF WANG LABORATORIES, INC. IF FOR ANY REASON THIS DRAWING IS PERMITTED BY WANG TO LEAVE THE PHYSICAL CUSTODY OF THE COMPANY, IT IS RETURNABLE UPON THE DEMAND OF WANG LABORATORIES, INC."

DO NOT SCALE

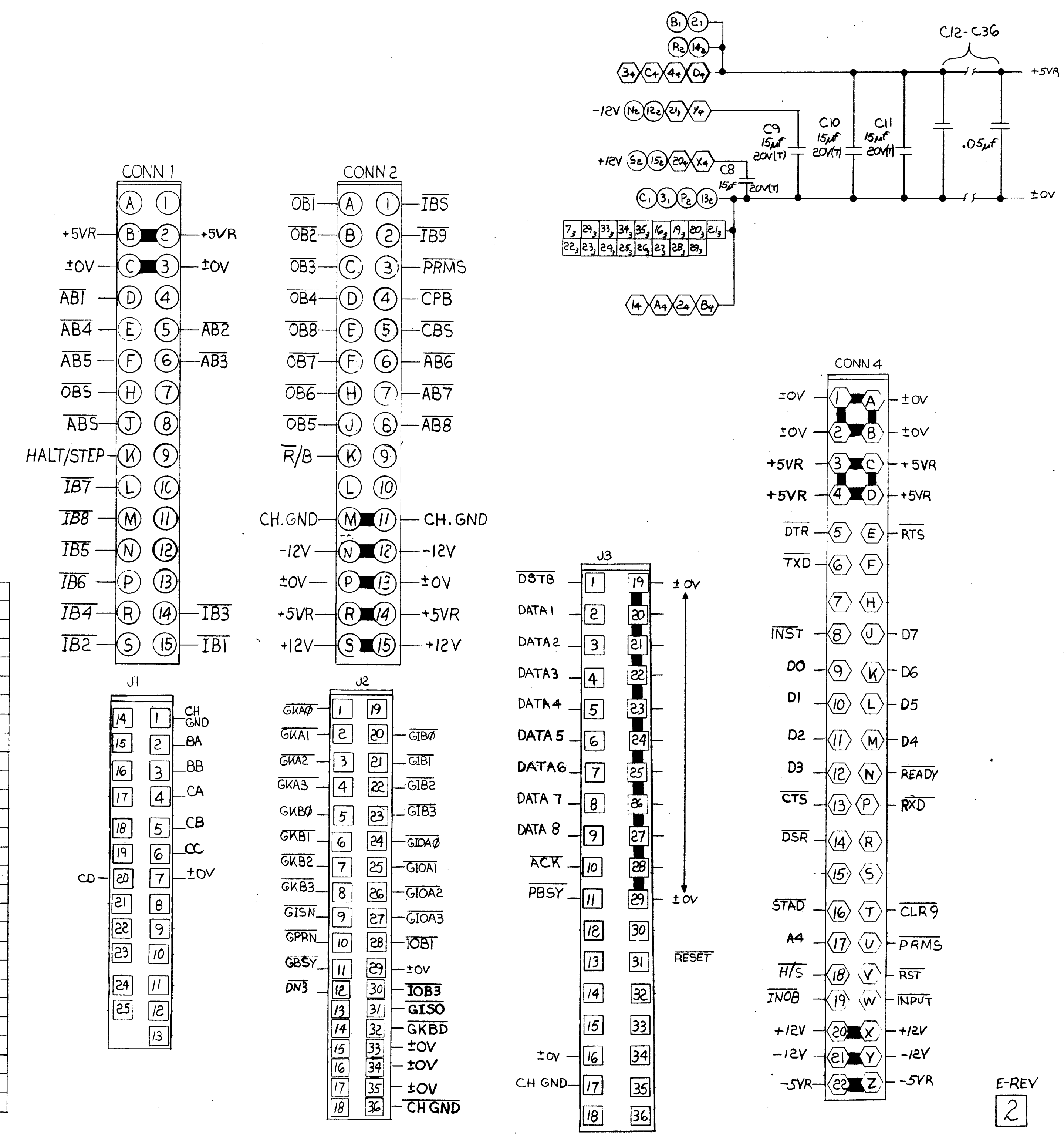
I.C. LOCATION	TYPE	W.L. NO.
L1,	75154	376-0077
L2,3	75150	376-0076
L4,36	7403	376-0028
L5,33,25	7474	376-0006
L6,37	7407	376-0056
L7,15	7432	376-0093
L8,11	74175	376-0119
L9,10,16,17	74367	376-0176
L12,L13,22,23	74LS266	376-0148
L14,	7408	376-0081
L30,38	74LS32	376-0211
L18,	74LS373	376-0310
L20,	74LS374	376-0286
L21,	74LS244	376-0288
L24,34,35	9602	376-0104
L26	74LS11	376-0225
L27	74LS08	376-0153
L28	74LS175	376-0161
L29	74251	376-0272
L31	74LS173	376-0289
L32	93L24	376-0120
L39	74LS04	376-0180
L40	74LS74	376-0155
L19	74LS273	376-0302

I.C. LOCATION	TYPE	SPARES
L4	7403	2
L13	LS266	2
L14	7408	2
L17	74367	1
L27	74LS08	3
L35	9602	1
L39	LS04	2
L40	SPARE	

COMPONENT	TYPE	W.L. NO.
R1-30	1K 1/4W 10%	330-3010
R36-48	2.2K 1/4W 10%	330-3022
R31-35	33K 1/4W 5%	330-3033
R49	68Ω 1W 10%	332-4068
C1,2	220pf Mica	300-5004
C3-5	470PF MICA	300-5005
C6,7	1000pf MICA	300-5006
C8-11	15μf/20V(TA)	300-4022
C12-C36	.05μf Cer Cap	300-1900
SW1	5 BANK SW	325-1501
SW2, SW3	8 BANK SW	325-1503
Q1	MPS6512 TRANS	375-1012
Q2	MPS6518 TRANS	375-1014
J1		350-1051
J2,3		350-2096
CONN 4		350-0022

MNEMONIC	CORD
A4	1B11
AB1-AB3	1G10
AB4-AB8	1E11
ABS	1E11
ACK	2G7
BA	2D1
BB	2G2
CA-CD	2E1, 2G2
CBS	1D11
CLR9	1A11
CPB	1G9
CTS	2G1
DØ-D7	1A6
DATA1 - DATA8	1F1
DN3	2A7
DSR	2F1
DSTB	2A4
DTR	2G3
GBSY	2G4
GIBØ - GIB3	1D1
GIOAØ - GIOA3	1E1
GISN	2G4
GISO	2A6
GKAØ - GKA3	1G4, 1G5
GKBD	2A7
GKBØ - GKB3	1G5
GPRN	2A6

CONT. MNEMONIC	CORD
HALT/STEP	1A10
H/S	1C11
IB1 - IB8	1A5
IB9	1A7
IBS	1A7
INOB	1G8
INPUT	1A11
INST	1G6
IOB1	2A9
IOB3	2A11
OB1-OB8	1G7
OBS	1D11
PBSY	2G7
PRMS	1B11, 1A10
R/B	1C1
READY	1D11
RESET	1A10
RST	1C11
RTS	2G3
RXD	2G1
STAD	1A4
TXD	2G3



D 7515

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.	BY	DATE	APPROVED BY	DATE
	DWN M. McMakin	7/79	E ENGR R. Smith	2/13/80
	CHK	2/13/80	M ENGR	
			MFG ENGR	

MATERIAL

MODEL NO. 2200

SEE ENGRG. SPECIFICATIONS

FINISH

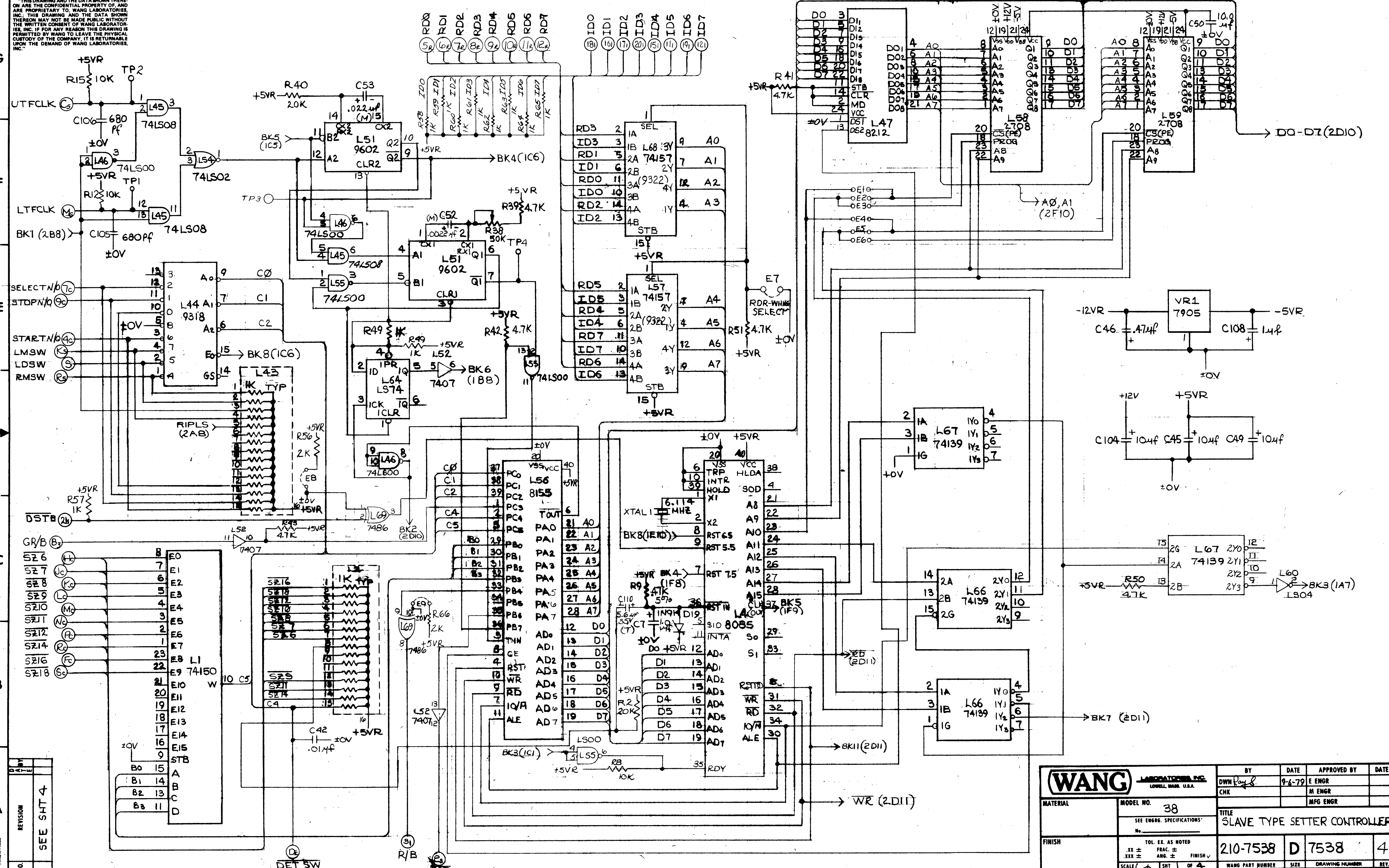
TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH

SCALE — SHT 4 OF 4

TITLE TRIPLE CONTROLLER MOTHER BOARD

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7515	D	7515	5

NO.	REVISION	DATE
0	ORIGINATED PER DWR # E 703 APPD 2/13/80	1-20-80
1	REVISED PER ECN # 11880, 11961 APPD 2/18/80	1-21-80
2	REVISED PER ECN # 12175 APPD 2/19/80	1-21-80
3	REVISED PER ECN # 15289 APPD	7-11-80
4	REVISED PER ECO # 17314 APPD	1-30-81
5	REVISED PER ECO # 18537 APPD	3-13-81



WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN Ray S.	9-6-79	E ENGR	
CHK		M ENGR	
		MFG ENGR	

MATERIAL

MODEL NO. 38

SEE ENGRG. SPECIFICATIONS No.

FINISH

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH ✓

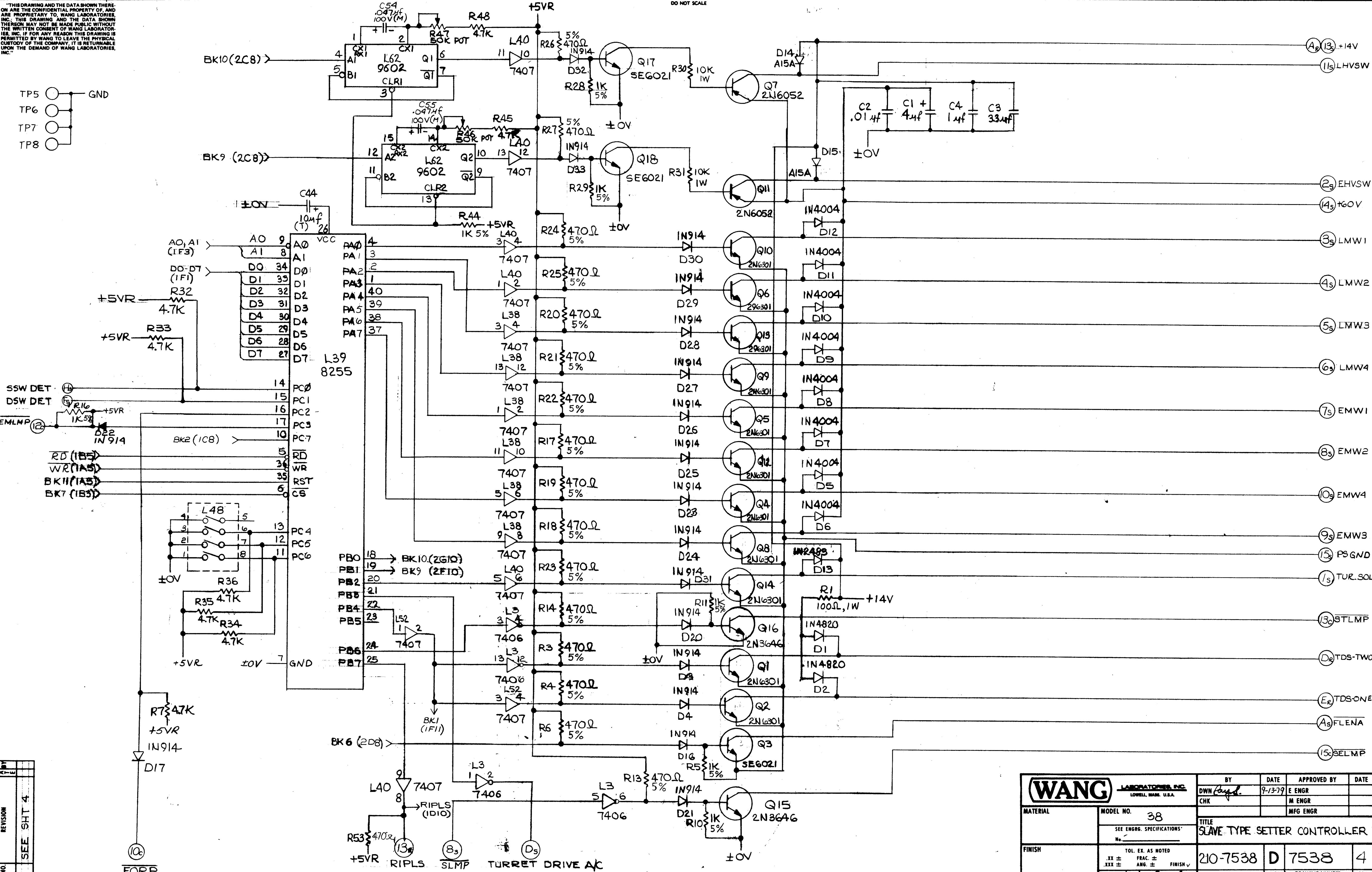
SCALE — SHT — OF 4

TITLE SLAVE TYPE SETTER CONTROLLER

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7538	D	7538	4

REVISION SEE SHT 4

D 7538

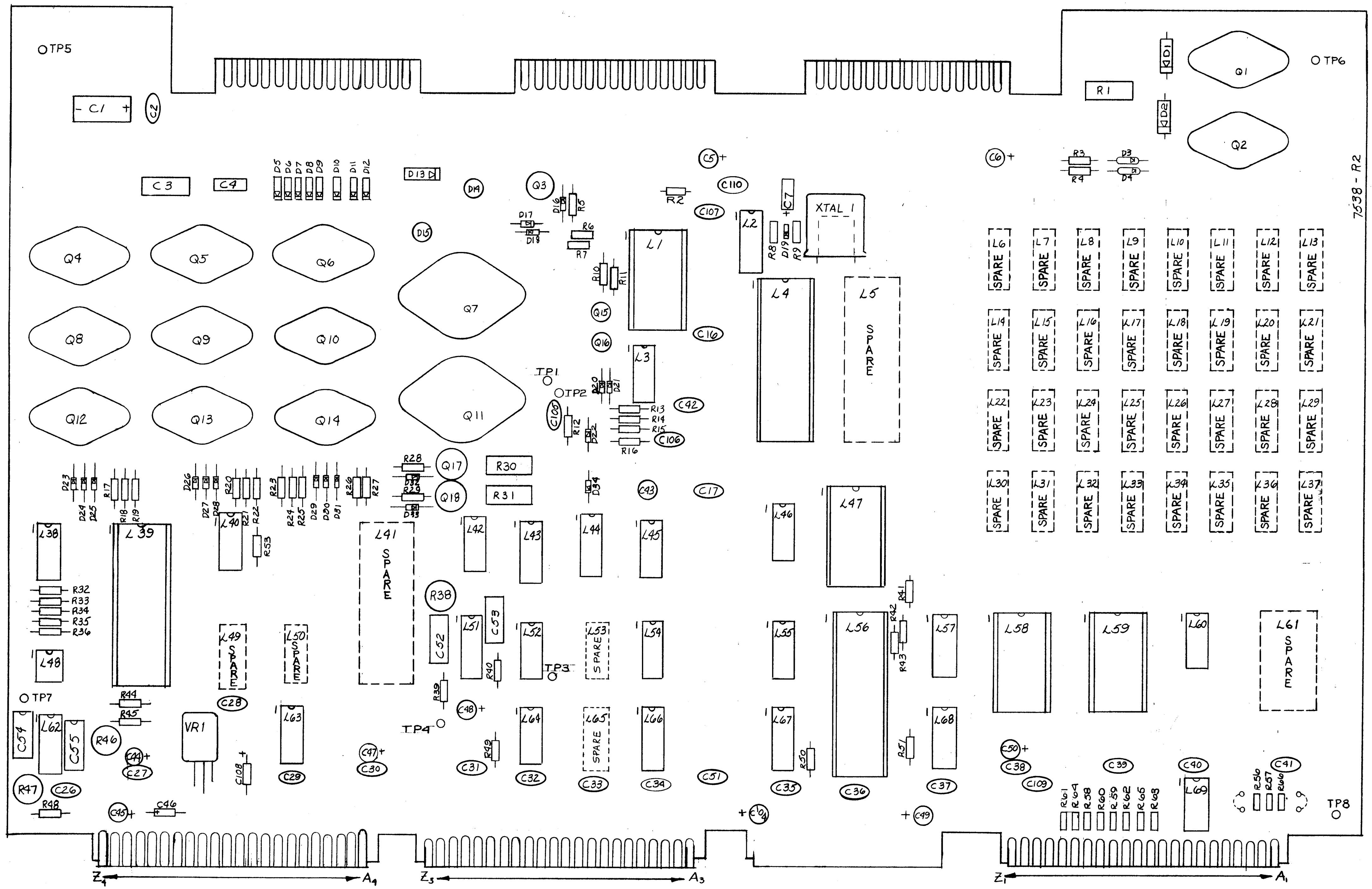


DO NOT SCALE
TP5 TP6 TP7 TP8 GND
BK10(2C8)
BK9 (2C8)
L62 9602
C54 .047μf 100V(M)
C55 .047μf 100V(M)
R47 50K POT
R46 50K POT
R48 4.7K
R45 4.7K
+5VR
L40 7407
Q17 SE6021
Q18 SE6021
Q7 2N6052
Q11 2N6052
R30 10K 1W
R31 10K 1W
D14 A15A
D15 A15A
C2 .01μf
C1 4μf
C4 1μf
C3 3.3μf
±0V
C44 10μf (T)
R44 1K 5% +5VR
A0, A1 (1F3)
D0-D7 (1F1)
L39 8255
R32 4.7K
R33 4.7K
SSW DET
DSW DET
EMLMP
R16 1K 5%
D22 IN914
BK2 (1C8)
RD (1B5)
WR (1A5)
BK11 (1A5)
BK7 (1B3)
L48
R36 4.7K
R35 4.7K
R34 4.7K
PB0 BK10 (2G10)
PB1 BK9 (2F10)
L52 7407
L3 7406
L38 7407
BK1 (1F11)
BK6 (2D8)
R7 4.7K
IN914 D17
FORP
L40 7407
RIPLS (1D10)
R53 470Ω
RIPLS
SLMP
TURRET DRIVE A/C
R13 470Ω 5%
D21
R10 1K 5%
Q15 2N3646
Q10 Q6 Q13 Q9 Q5 Q12 Q4 Q8 Q14 Q16 Q1 Q2 Q3
2N6301
SE6021
2N3646
1N4004
IN2483
1N4820
R1 100Ω, 1W +14V
+14V
LHVSW
EHVSW
+60V
LMW1
LMW2
LMW3
LMW4
EMW1
EMW2
EMW4
EMW3
PS GND
TUR. SOL
STLMP
TDS-TWO
TDS-ONE
FLENA
SELMP
D 7538

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.	BY	DATE	APPROVED BY / DATE
	DWN	9-13-79	E ENGR
	CHK		M ENGR
			MFG ENGR
MATERIAL	MODEL NO. 38	TITLE SLAVE TYPE SETTER CONTROLLER	
	SEE ENGRG. SPECIFICATIONS No.		
FINISH	TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH √	210-7538 (WANG PART NUMBER)	D (SIZE) / 7538 (DRAWING NUMBER) / 4 (REV.)
	SCALE / SHT 2 OF 4		

REVISION / SEE SHT 4

DO NOT SCALE



WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.			
BY	DATE	APPROVED BY	DATE
DWN Ray S	9.20.79	E ENGR	
CHK		M ENGR	
		MFG ENGR	

MATERIAL

MODEL NO. 38

SEE ENGRG. SPECIFICATIONS No.

FINISH

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH ✓

SCALE SHT 3 OF 4

TITLE SLAVE TYPESETTER CONTROLLER

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7538	D	7538	4

REVISION: SEE SHEET 4

D 7538

DO NOT SCALE

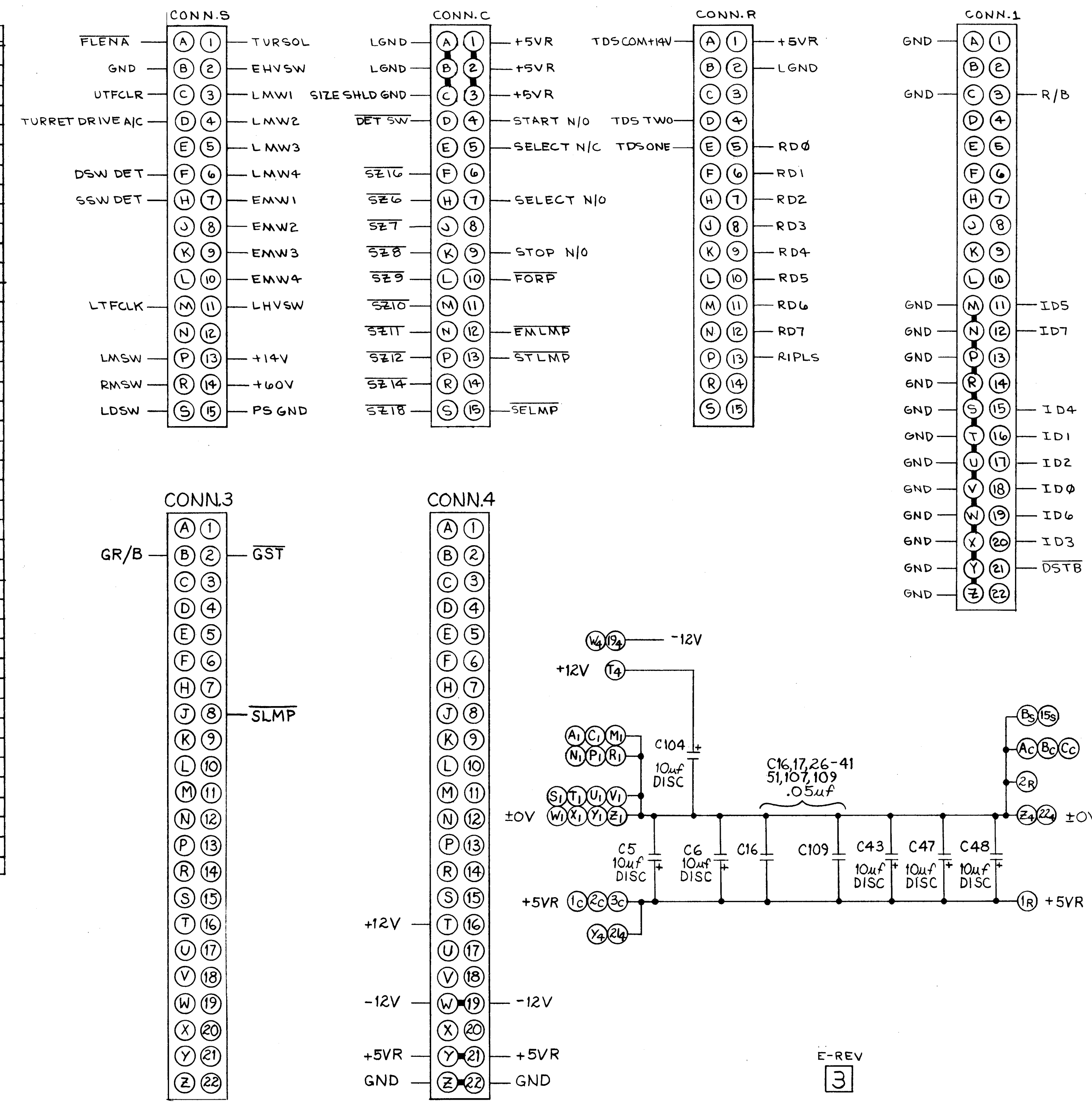
I.C. LOCATION	TYPE	W.L. NO.
L1	74150	376-0361
L2,43	1K RES PCK	50331-0185
L4	8085	SEE CHART
L38,40,52	7407	376-0056
L39	8255A	SEE CHART
L44	9318	376-0443
L45	74LS08	376-0153
L46,55	74LS00	376-0207
L47	8212	SEE CHART
L51,62	9602	376-0104
L54	74LS02	376-0208
L56	8155	SEE CHART
L57,68	74157	376-0082
L58,59	2708	SEE CHART
L60	74LS04	376-0180
L63,3	7406	376-0055
L66,67	74LS139	376-0226
L1,47,58,59	24 PIN SKT	376-9003
L4, 39, 56	40 PIN SKT	376-9011
L5-37,41,49,50,53,61,65	SPARES	~

TYPE	LOCATION	SPARES
7400	L55	1
74LS02	L54	3
7404	L60	3
7406	L3	4
	L63	1
7407	L52	3
74LS08	L45	1
7474	L64	1
7486	L69	2

COMPONENT	TYPE	W.L. NO.
R1	100Ω,10% 1W	332-2010
R 5,10,11,16,28,29, 44,49,53, 57-65	1K,5% 1/4W	330-3011
R3,4,6,13,14,17-27	470Ω,10% 1/4W	330-2047
R7,32-36,39, 41-43,45,48,50,51	4.7K,10% 1/4W	330-3047
R8,12,15	10K, 5% 1/4W	330-4011
R9	47K, 5% 1/4W	330-4048
R30,31	10K, 1W	332-4010
R38,46,47	50K POT	336-1027
R40,2	20K,5% 1/4W	330-4021
R56,66	2K, 10% 1/4W	330-3020
C53	.022uf 100V(M)	300-2123
C1	4uf, 60V ELEC.	300-3080
C2	.01uf, 25V CER.	300-1903
C3	3.3uf, 15V TA.	300-4016
C4	1uf, 50V	300-1943
C7,108	1uf, 35V(T)	300-4000
C16,17,26-41,51,107,109	.05uf, CER.	300-1900
C42	1uf, 12V CER.	300-1901
C5,6,43-45,47-50,104	10uf, 20V DISC	300-3047
C46	.47uf, 35V TA.	300-4001
C52,53	.0022uf, 100V MYL.	300-2023
C54,55	.047uf, 100V MYL.	300-2147
C105,106	680pf, 500V CER.	300-1680
C110	5.6uF (TANT)	330-3011
D1,2	SIL. IN4820	380-1240
D3,4,16,17,19-33	SIL. IN914	380-1012
D5-12	SIL. IN4004	380-4004
D13	SIL. IN2483	380-3013
D14,15	SIL. A15A	380-3008
Q1,2,4-6,8,9, 10,12,13,14	NPN 2N6301	375-1075
Q3,17,18	NPN SE6021	375-1077
Q7,11	PNP 2N6052	375-1076
Q15,16	NPN 2N3646	375-1004
XTAL 1	6.114 MHZ	321-0033
VR1	7905	374-0002

MNEMONIC	COORDINATE
DETSW (overbar)	1A9
DSTB (overbar)	1C11
DSW DET	2D11
EHVSW	2F1
EMLMP (overbar)	2D11
EMW 1-4	2D1
FLENA (overbar)	2B1
FORP (overbar)	2D11
GR/B	1C11
GST (overbar)	1A8
IDØ-ID7	1G7
LDSW	1E11
LMSW	1E11
LMW1-LMW4	2F1
LTFCLK	1G11
PWS GND	2C
R/B	1A9
RDØ-RD7	1G8
RIPLS	2A8
RMSW	1D11
SELECT N/C	
SELECT N/O	1E11
SELMP (overbar)	2A1
START N/O	1E11
STOP N/O	1E11
SSW DET	2D11
SZ6-SZ12	1C11
SZ14	1B11
SZ16	1B11
SZ18	1B11
SLMP (overbar)	2A8
TDS ONE	2B1
TDS TWO	2B1
TURRET DRIVE A/C	2A7
TURSOL	2C1
UTFLK	1F11

210 = 209 + 377 OR 378							
210	209	L4	L39	L47	L56	L58	L59
7538-A	7538	377-0366	377-0380	377-0370	377-0364	378-2490	378-2491



BY	R.S.	J.S.	J.S.	L.D.C.	L.B.C.
DATE	9-20-79	10-29-79	11-20-79	4-10-80	12-17-80
REVISION	ORIGINATED PER DWR # E720 APP'D	REVISED PER ECN # 13163G APP'D	REVISED PER ECN # 12809 APP'D	REVISED PER ECN # 14335 APP'D	REVISED PER ECN # 5910 APP'D
NO.	0	1	2	3	4

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	Ray S.	9-20-79	E ENGR 3. D.K.	12/13/80
CHK	R.R. Bloom	12-23-80	M ENGR	
			MFG ENGR	

MATERIAL

MODEL NO. 38

SEE ENGRG. SPECIFICATIONS No.

FINISH

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH

SCALE SHT 4 OF 4

TITLE SLAVE TYPESETTER CONT.

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7538	D	7538	4

NO.	REVISION	DATE	BY
	SEE SHEET 5		

SIGNAL: ARCHIVER	SIGNAL: SYSTEM5	UNIV. MEM 7544 ARCH.	UNIV. MEM 7410 SYS5	CRT/CPU 7545 ARCH	CRT/CPU 7712 SYS5	ARCH. DISK 7543 ARCH.	ARCH. DISK 7411 SYS5	REGULATOR ARCH/SYS5	SPARE ARCH	SPARE SYS5	SPARE ARCH	SPARE SYS5	J1 ARCH/SYS5	J2 ARCH/SYS5	J3 ARCH/SYS5	J4 ARCH/SYS5	J5 ARCH/SYS5	J6 ARCH/SYS5	J7 ARCH/SYS5	J8 ARCH/SYS5	S.P. ARCH/SYS5
AET	AET			44	44	S3	S3									13					
AUTO RESET	AUTO RESET			15	15			J													
AØ	AØ	D1	D1	D1	D1	D1	D1		D1	D1	D1	D1									
A1	A1	41	41	41	41	41	41		41	41	41	41									
A2	A2	E1	E1	E1	E1	E1	E1		E1	E1	E1	E1									
A3	A3	51	51	51	51	51	51		51	51	51	51									
A4	A4	F1	F1	F1	F1	F1	F1		F1	F1	F1	F1									
A5	A5	61	61	61	61	61	61		61	61	61	61									
A6	A6	H1	H1	H1	H1	H1	H1		H1	H1	H1	H1									
A7	A7	71	71	71	71	71	71		71	71	71	71									
A8	A8	J1	J1	J1	J1	J1			J1	J1	J1	J1									
A9	A9	81	81	81	81	81			81	81	81	81									
A10	A10	K1	K1	K1	K1	K1			K1	K1	K1	K1									
A11	A11	91	91	91	91	91			91	91	91	91									
A12	A12	L1	L1	L1	L1	L1			L1	L1	L1	L1									
A13	A13	101	101	101	101	101			101	101	101	101									
A14	A14	M1	M1	M1	M1	M1			M1	M1	M1	M1									
A15	A15	111	111	111	111	111			111	111	111	111									
BASE Q1	BASE Q1							M/11									2				
BIORQ		21		21		N1			21		21										
BPF		201		201		201															
BWR		B4		C1		C1			C1		C1										
BWRE		183/34		34		183			34		34										
BLA	NOT USED	Y3/U4	Y3/U4	U4	U4				U4	U4	U4	U4									
BMI	BMI	31	31	31	31	Z1	Z1		31	31	31	31									
NOT USED	CAR					C4	C4								9						
NOT USED	CEOB			74	74	74	74														
	CEOC		13		E4		E4			E4		E4									
	CEOE		54		54		54			54		54									
NOT USED	CEOF			F4	F4	F4	F4														
	CEO3				H4		H4														
	CEO4				64		64														
	CEO5				82		82														
	CEO6				J2		J2														
	CEO7				72		72														
	CEO8				H2		H2														
NOT USED	CF			141	141	S1	S1														
NOT USED	CHECK/FAULT					U3	U3								10						
CK SHIELD 1	NOT USED	193	193	84	84																
CK SHIELD 2	NOT USED	213	213	104	104																
CR	NOT USED	203	203	94	94																
CLICK	CLICK			62	62											12					
NOT USED	CMS					S4	S4								15						
NOT USED	CO					A3	A3								35						
CLICK WS	NOT USED	L4	L4	L4	L4				L4	L4	L4	L4									
NOT USED	DA1A					J4	J4								1						
NOT USED	DA2A					B4	84								26						
NOT USED	DA3A					A4	A4								2						
NOT USED	DA4A					213	213								27						
NOT USED	DA5A					44	44								3						
NOT USED	DA6A					D4	D4								28						
NOT USED	DA7A					54	54								4						
NOT USED	DA8A					203	203								29						
NOT USED	DA9A					84	84								5						
NOT USED	DA10A					K4	K4								30						
NOT USED	DA11A					94	94								6						
NOT USED	DA12A					L4	L4								31						
DØ	DØ	P2	P2	P2	P2	P2	P2		P2	P2	P2	P2									
D1	D1	R2	R2	R2	R2	R2	R2		R2	R2	R2	R2									
D2	D2	N2	N2	N2	N2	N2	N2		N2	N2	N2	N2									
D3	D3	M2	M2	M2	M2	M2	M2		M2	M2	M2	M2									
D4	D4	112	112	112	112	112	112		112	112	112	112									
D5	D5	122	122	122	122	122	122		122	122	122	122									
D6	D6	132	132	132	132	132	132		132	132	132	132									
D7	D7	142	142	142	142	142	142		142	142	142	142									
DAX	DAX			124	124	R4	R4									11					
DBA	DBA	P1	C2	P1	C2		C2		P1	C2	P1	C2									
DBUS RQ		W1		W1		W1															
NOT USED	DC	161	161	161	161	161	161														
DKS	NOT USED	33	33	33	33	33	33		33	33	33	33									
DLE	NOT USED	143	143	143	143	143	143		143	143	143	143									
	DR		T1		T1		T1			T1											
	DRC		E2		E2		E2			E2		E2									
DRY	DRY			191	191	191	191						R	R							
	DS		Y1		Y1		Y1			Y1		Y1									
DPARE		24		24		24			24		24										
DL RESTART		T4/X3		T4		T4			T4		T4										
EDK	NOT USED	C3	C3	C3	C3	C3	C3		C3	C3	C3	C3									
EOR	EOR					B3	B3								11						
ERGT/WRGT	ERGT/WRGT					F2	F2						D	D							
NOT USED	FL					124	124								48						
NOT USED	F/N	X1	X1	X1	X1	X1	X1														

DO NOT SCALE

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE	
DWN [illegible]	2-9-80	E ENGR		
CHK		M ENGR		
		MFG ENGR		

MATERIAL: —
MODEL NO. ARCHIVER/SYSTEM 5 — SEE ENGRG. SPECIFICATIONS
FINISH: —
TOL. EX. AS NOTED
SCALE — SHT 1 OF 5

TITLE: MOTHERBOARD

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7546	D	7546	5

D 7546

SIGNAL		UNIV. MEM.		CRT/CPU		ARCH. DISK		REGULATOR	SPARE		SPARE		J1	J2	J3	J4	J5	J6	J7	J8	S.P.
ARCHIVER	SYSTEM5	7544 ARCH.	7410 SYS5	7545 ARCH	7712 SYS5	7543 ARCH.	7411 SYS5	ARCH/SYS5	ARCH	SYS5	ARCH	SYS5	ARCH/SYS5	ARCH/SYS5	ARCH/SYS5	ARCH/SYS5	ARCH/SYS5	ARCH/SYS5	ARCH/SYS5	ARCH/SYS5	ARCH/SYS5
+GA	NOT USED	K_3	K_3																		+GA
+GB	NOT USED	L_3	L_3																		+GB
HDIR	HDIR					9_2	9_2						C	C							
HDL1	HDL1					10_2	10_2						M								
HDL2	HDL2					K_2	K_2							M							
HSTP	HSTP					3_1	3_1						B	B							
INDEX1	INDEX1					B_1	B_1						J								
INDEX2	INDEX2					1_1	1_1							J							
	INT/EXT		12_1		12_1		12_1														
INT				18_1		18_1															
	IORQ		2_1		2_1		N_1			2_1		2_1									
IN05				N_1		10_4															
IN06				R_1		R_1															
IM2		5_4		5_4		19_3			5_4		5_4										
INTTC				6_4		6_4															
KDHS	NOT USED	11_3	11_3	11_3	11_3	11_3	11_3		11_3	11_3	11_3	11_3									
KP				H_4		H_4															
K5	K5			N_4	N_4											1					
KWR	NOT USED	E_3	E_3	E_3	E_3	E_3	E_3		E_3	E_3	E_3	E_3									
K0	K0			R_4	R_4											2					
K1	K1			17_4	17_4											3					
K2	K2			P_4	P_4											4					
K3	K3			15_4	15_4											5					
K4	K4			13_4	13_4											6					
K5	K5			5_4	5_4											7					
K6	K6			14_4	19_4											8					
LED1	LED1					19_4	19_4														LED-1
LED 2	LED2					W_4	W_4														LED-2
LOCK	LOCK			J_4	J_4											9					
LTZ	LTZ			17_1	17_1	17_1	17_1						P	P							
MCK	NOT USED	3_2	3_2	3_2	3_2	3_2	3_2		3_2	3_2	3_2	3_2									
MPE	MPE	K_2	16_4	K_2	16_4		16_4		K_2	16_4	K_2	16_4									
MR	MR	L_2	L_2	L_2	L_2	L_2	L_2		L_2	L_2	L_2	L_2									
MREQ	MREQ	4_2	$1_4/W_3$	4_2	1_4	4_2	16_3		4_2	1_4	4_2	1_4									
MWAIT	NOT USED	21_1	21_1	21_1	21_1	21_1	21_1														
	NOP		2_4		2_4		2_4			2_4		2_4									
NR	NOT USED	Z_1	Z_1	Z_1	Z_1				Z_1	Z_1	Z_1	Z_1									
OUT 0A		D_2		D_2		5_3			D_2		D_2										
OUT 0B				8_2		8_2															
OUT 0C				7_2		7_2															
OUT 03				U_2		U_2															
OUT 08				H_2		H_2															
PARE		1_3		E_4		E_4			E_4		E_4										
P/C WAIT		C_2		C_2		C_2			C_2		C_2										
NOT USED	PFR					X_3	X_3								7						
NOT USED	PFS					P_4	P_4								17						
NOT USED	PL					11_4	11_4								50						
NOT USED	P0					T_3	T_3								12						
NOT USED	PRIME							C/3													SW1-N.O.
PROM CS		$W_3/1_4$		1_4		16_3			1_4		1_4										
PROM SW	NOT USED	10_2	10_2	10_2	10_2																
NOT USED	PRYA					3_4	3_4								34						
PWRST		A_4/V_3		A_4		1_4			A_4		A_4										
NOT USED	PWR					Y_3	Y_3								8						
NOT USED	PWS					14_4	14_4								16						
NOT USED	PSL					N_4	N_4								49						
-RA	NOT USED	5_3	5_3																		-RA
-RB	NOT USED	6_3	6_3																		-RB
RCK	RCK					14_1	14_1						F	F							
RD	RD	E_2	A_4/V_3	E_2	A_4	E_2	1_4		E_2	A_4	E_2	A_4									
RDD	RDD					16_1	15_1						H	H							
NOT USED	REST					18_4	18_4								14						
RFSH	RFSH	Y_1	C_4	Y_1	C_4	Y_1	R_3		Y_1	C_4	Y_1	C_4									
NOT USED	RL					M_4	M_4								25						
NOT USED	RLT					17_4	17_4								23						
NOT USED	RXRDY			13_1	13_1	13_1	13_1														

NO.	REVISION	DATE	BY
	SEE SHEET 5		

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

DWN: [illegible] 2-9-80

MODEL NO. ARCHIVER/SYSTEM5 — SEE ENGRG. SPECIFICATIONS

TITLE: MOTHERBOARD

MATERIAL: — FINISH: —

TOL. EX. AS NOTED

SHT 2 OF 5

210-7546 (WANG PART NUMBER) | D (SIZE) | 7546 (DRAWING NUMBER) | 5 (REV.)

D 7546

DO NOT SCALE

OGILVIE PRESS

OGILVIE PRESS

NO.	REVISION	DATE	BY
	SEE SHEET 5		

SIGNAL		UNIV. MEM.		CRT/CPU		ARCH. DISK		REGU-LATOR	SPARE		SPARE		J1	J2	J3	J4	J5	J6	J7	J8	S.P.
ARCHIVER	SYSTEM 5	7544 ARCH.	7410 SYS 5	7545 ARCH	7712 SYS 5	7543 ARCH.	7411 SYS 5	ARCH/ SYS 5	ARCH	SYS 5	ARCH	SYS 5	ARCH/ SYS 5	ARCH/ SYS 5	ARCH/ SYS 5	ARCH/ SYS 5	ARCH/ SYS 5	ARCH/ SYS 5	ARCH/ SYS 5	ARCH/ SYS 5	ARCH/ SYS 5
	$\overline{SCA}$				N1		10₄														
	$\overline{SCF}$				R1		R1														
SECTOR 1	$\overline{SECTOR1}$					A1	A1						L								
SECTOR 2	$\overline{SECTOR2}$					21	21							L							
NOT USED	$\overline{SEL}$					15₄	15₄								20						
NOT USED	$\overline{SEL}$					13₄	13₄								21						
$\overline{SFL1}$	$\overline{SFL1}$					52	52						N								
$\overline{SFL2}$	$\overline{SFL2}$					13	13							N							
$\overline{SH\ KEY}$	$\overline{SH\ KEY}$			11₄	11₄											10					
SHLED	$\overline{SHLED}$			M4	M4											14					
NOT USED	$\overline{SL}$					U4	U4								24						
	$\overline{SOC}$				U1		U1														
	$\overline{SOR}$				18₁		18₁														
$\overline{SPK}$	$\overline{SPK}$			F2	F2											15					
NOT USED	$\overline{SPKD}$					W3	W3								19						
$\overline{SPKWS}$	NOT USED	K4	K4	K4	K4				K4	K4	K4	K4									
	$\overline{SPO}$		20₁		20₁		20₁														
	$\overline{SRE}$		W1		W1		W1														
SWMUX		12₁		12₁		12₁															
	TCØ		T4/X3		T4		T4			T4		T4									
NOT USED	$\overline{TFB}$					15₃	15₃								32						
NOT USED	$\overline{TFP}$					17₃	17₃		17₃	17₃	17₃	17₃			33						
NOT USED	$\overline{TFS}$	13₃	13₃	13₃	13₃	13₃	13₃		13₃	13₃	13₃	13₃			18						
NOT USED	$\overline{TMR}$	P3	P3	P3	P3	P3	P3		P3	P3	P3	P3			13						
NOT USED	$\overline{TOF}$					N3	N3								22						
	TX RDY		B1		B1		P1			B1		B1									
WCD	$\overline{WCD}$					D2	D2						E	E							
WP	$\overline{WP}$			V1	V1	V1	V1						K	K							
	$\overline{WR}$		B4		C1		C1			C1		C1									
	$\overline{WRE}$		39/183		34		183			34		34									
WTR				D4																	
ØA		T1		T1		T1			T1												
ØB		B1		B1		P1			B1		B1										
ØA SHIELD				U1		U1															
28 VAC 1	28 VAC 1							P/13										3			
28 VAC 2	28 VAC 2							N/12										4			
+27VUR	+27VUR							S/15										1			
+24 VR	+24 VR							E/5	W9/19₄	W9/19₄	W9/19₄	W9/19₄	14	14		18/86					
14 VAC 1	14 VAC 1							K/9											2		
14 VAC 2	14 VAC 2							L/10											1		
+14 VUR	+14 VUR							R/19										2			
+12V	+12V	52/152	52/152	52/152	52/152	52/152	52/152	A/1	52/152	52/152	52/152	52/152				17/35					
+5VR	+5VR	B2/22 14/216	B2/22 14/216	B2/22 14/216	B2/22 14/216	B2/22 14/216	B2/22 14/216	D/4	B2/22 14/216	B2/22 14/216	B2/22 14/216	B2/22 14/216	15	15							
±0V	±0V	12/A2 49/U1 B3/23 22₄/24 A1/11 U3/93	12/A2 22₄/24 49/U1 B3/23 A1/11 U3	12/A2 22₄/24 49 B3/23 A1/11 U3	12/A2 22₄/24 B3/23 A1/11 U3	12/A2 22₄/24 J3/12	12/A2 22₄/24 J3/24	H/7	12/A2 22₄/24 B3/23 49/U3 A1/11 U1	12/A2 22₄/24 B3/23 49/U3 A1/11 U1	12/A2 22₄/24 B3/23 49/U3 A1/11 U1	12/A2 22₄/24 B3/23 49/U3 A1/11 U1	11,12,A	11,12,A						1,2,3 SW1-C	
-5VR	-5VR	20₄/X4 A3	20₄/X4 A3	20₄/X4	20₄/X4	20₄/X4	20₄/X4	F/6	20₄/X4 A3	20₄/X4 A3	20₄/X4 A3	20₄/X4 A3	13	13							
-12VR	-12V	22₃/123	22₃/123	22₃/123	22₃/123	22₃/123	22₃/123	B/2	22₃/123	22₃/123	22₃/123	22₃/123									
	NOT USED		K2		K2					K2		K2									
NOT USED		16₄		16₄		16₄			16₄		16₄										
	NOT USED		42		42		42			42		42									
	NOT USED		P1		P1					P1		P1									
SPARE	SPARE	N1	N1						N1	N1	N1	N1									
									12₁	12₁	12₁	12₁									
		13₁	13₁						13₁	13₁	13₁	13₁									
		12₁	12₁						12₁	12₁	12₁	12₁									
		14₁	14₁						14₁	14₁	14₁	14₁									
		S1	S1						S1	S1	S1	S1									
		15₁	15₁						15₁	15₁	15₁	15₁									
									16₁	16₁	16₁	16₁									
		17₁	17₁						17₁	17₁	17₁	17₁									
		V1	V1						V1	V1	V1	V1									
		18₁	18₁						18₁	18₁	18₁	18₁									
									W1	W1	W1	W1									
		19₁	19₁						19₁	19₁	19₁	19₁									
									X1	X1	X1	X1									
									20₁	20₁	20₁	20₁									
									21₁	21₁	21₁	21₁									
		22₁	22₁	22₁	22₁	22₁	22₁		22₁	22₁	22₁	22₁									
		52	52	52	52																
SPARE	SPARE	92	92	92	92																

DO NOT SCALE

FINISH	MATERIAL	WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.		BY	DATE	APPROVED BY
		MODEL NO. ARCHIVE SYSTEMS SEE ENGRG SPECIFICATIONS	DWN			
SCALE	TOL. EX. AS NOTED FRAC. ± DEC. ± ANG. ±		CHK			
SHT. 3 OF 5		TITLE MOTHER BOARD	ENGR			
			MFG ENGR			
WANG PART NUMBER	210-7546	SIZE D	DRAWING NUMBER 7546	REV. 5		

7546

DO NOT SCALE

SIGNAL	UNIV. MEM.	CRT/CPU	ARCH. DISK	REGULATOR	SPARE	J1	J2	J3	J4	J5	J6	J7	J8	S.P.
ARCHIVER SYSTEM 5	ARCH. SYS5	ARCH SYS5	7543 ARCH. SYS5	7411 SYS5	ARCH SYS5	ARCH/ SYS5	ARCH/ SYS5	ARCH/ SYS5	ARCH/ SYS5	ARCH/ SYS5	ARCH/ SYS5	ARCH/ SYS5	ARCH/ SYS5	ARCH/ SYS5
SPARE	F2	F2	F3	F3	F2	F2	F2	F2	F2	F2	F2	F2	F2	F2
			63	63	63	62	62	62	62	62	62	62	62	62
	H2	H2	H3	H3	H3	H2	H2	H2	H2	H2	H2	H2	H2	H2
			73	73	73	72	72	72	72	72	72	72	72	72
	J2	J2	83	83	83	J2	J2	J2	J2	J2	J2	J2	J2	J2
			K3	K3	K3	82	82	82	82	82	82	82	82	82
	92	92	93	93	93	92	92	92	92	92	92	92	92	92
			L3	L3	L3	102	102	102	102	102	102	102	102	102
	103	103	M3	M3	M3	13	13	13	13	13	13	13	13	13
	M3	M3	N3	N3	N3	D3	D3	D3	D3	D3	D3	D3	D3	D3
			123	123	123	53	53	53	53	53	53	53	53	53
	R3	R3	S3	S3	S3	F3	F3	F3	F3	F3	F3	F3	F3	F3
			T3	T3	T3	63	63	63	63	63	63	63	63	63	63
	163	163	U3	U3	U3	H3	H3	H3	H3	H3	H3	H3	H3	H3
			V3	V3	V3	73	73	73	73	73	73	73	73	73
	183	183	W3	W3	W3	83	83	83	83	83	83	83	83	83
			193	193	193	K3	K3	K3	K3	K3	K3	K3	K3	K3
	X3	X3	203	203	203	93	93	93	93	93	93	93	93	93
			V3	V3	V3	L3	L3	L3	L3	L3	L3	L3	L3	L3
						103	103	103	103	103	103	103	103	103
						M3	M3	M3	M3	M3	M3	M3	M3	M3
						N3	N3	N3	N3	N3	N3	N3	N3	N3
						123	123	123	123	123	123	123	123	123
						R3	R3	R3	R3	R3	R3	R3	R3	R3
						S3	S3	S3	S3	S3	S3	S3	S3	S3
						T3	T3	T3	T3	T3	T3	T3	T3	T3
						163	163	163	163	163	163	163	163	163
						U3	U3	U3	U3	U3	U3	U3	U3	U3
						V3	V3	V3	V3	V3	V3	V3	V3	V3
						183	183	183	183	183	183	183	183	183
						W3	W3	W3	W3	W3	W3	W3	W3	W3
						193	193	193	193	193	193	193	193	193
						X3	X3	X3	X3	X3	X3	X3	X3	X3
						203	203	203	203	203	203	203	203	203
						V3	V3	V3	V3	V3	V3	V3	V3	V3
						84	84	84	84	84	84	84	84	84
						D4	D4	D4	D4	D4	D4	D4	D4	D4
						44	44	44	44	44	44	44	44	44
						F4	F4	F4	F4	F4	F4	F4	F4	F4
						64	64	64	64	64	64	64	64	64
						H4	H4	H4	H4	H4	H4	H4	H4	H4
						74	74	74	74	74	74	74	74	74
						U4	U4	U4	U4	U4	U4	U4	U4	U4
						84	84	84	84	84	84	84	84	84
						94	94	94	94	94	94	94	94	94
						104	104	104	104	104	104	104	104	104
						M4	M4	M4	M4	M4	M4	M4	M4	M4
						114	114	114	114	114	114	114	114	114
						N4	N4	N4	N4	N4	N4	N4	N4	N4
						124	124	124	124	124	124	124	124	124
						P4	P4	P4	P4	P4	P4	P4	P4	P4
						134	134	134	134	134	134	134	134	134
						R4	R4	R4	R4	R4	R4	R4	R4	R4
						144	144	144	144	144	144	144	144	144
						S4	S4	S4	S4	S4	S4	S4	S4	S4
						154	154	154	154	154	154	154	154	154
						174	174	174	174	174	174	174	174	174
						V4	V4	V4	V4	V4	V4	V4	V4	V4
						184	184	184	184	184	184	184	184	184
SPARE					SPARE									

NO.	REVISION	BY	DATE
	SEE SHEET 5		

	BY	DATE	APPROVED BY	DATE
DWN	KB.	2/11/80	E ENGR	
CHK			M ENGR	
			MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL: A

FINISH: A

MODEL NO. ARCHIVER/5YSTEMS — SEE ENGRG. SPECIFICATIONS — No.

TOL. EX. AS NOTED: XX ± FRAC. ± XXX ± ANG. ± FINISH √

SCALE A SHT 4 OF 5

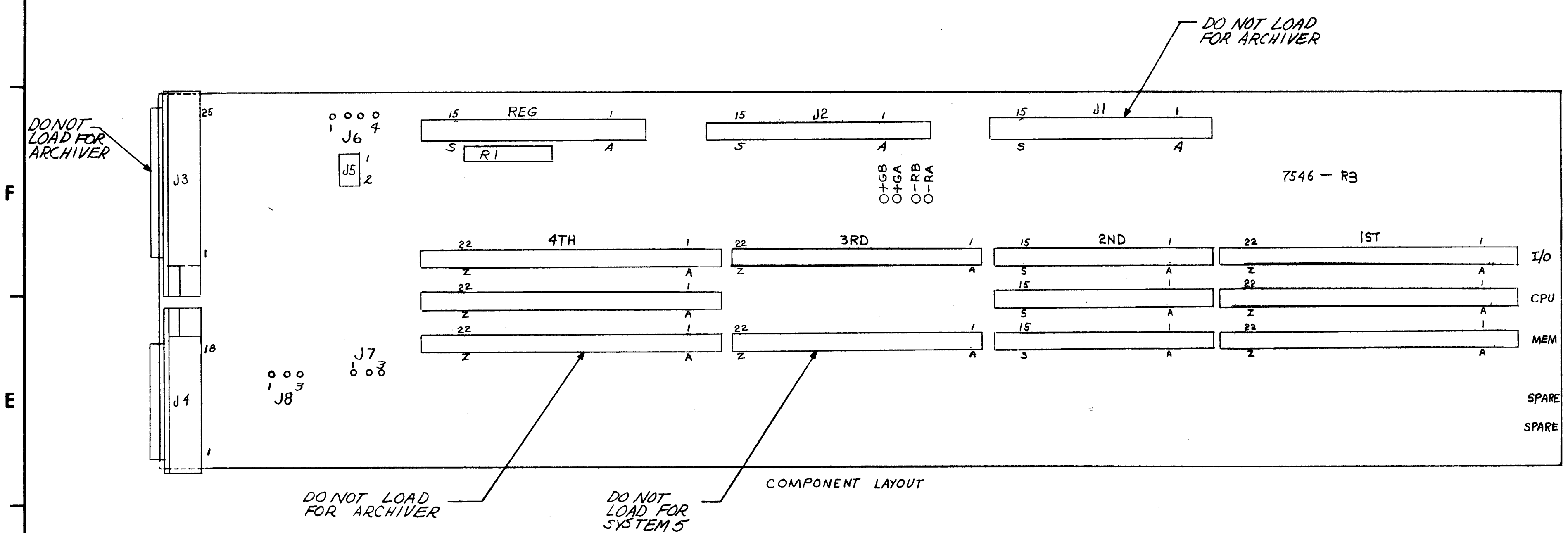
TITLE: MOTHERBOARD

210-7546 | D | 7546 | 5

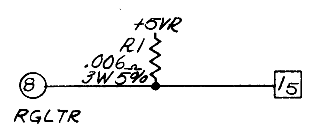
WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.

7546 D

DO NOT SCALE



COMPONENT	W.L.PART NO.	TYPE
R1	334-0031	.006Ω 3W 5%
J1,2, REG 1, CONN 2	350-0011	30 PIN SKT.
J3	350-1062	50 PIN SKT.
J4	350-1060	36 PIN SKT.
J5	654-1198	CONN 2 POS.
CONN. 1,4	350-0021	44 PIN SKT
CONN 3	350-0039	44 PIN SKT



7546-1 E-REV	7546 E-REV
1	1
ARCHIVER	SYSTEM 5

NO.	REVISION	DATE	BY
0	ORIGINATED PER DWR #E641 APP'D: 2-13-80	7-3-79	ER
1	REVISED PER ECN #11367 APP'D: 2-13-80	7-3-79	ER
2	REVISED PER ECN #11792 APP'D: 2-13-80	7-3-79	ER
3	REVISED PER ECN #12148, 12396, 13092, APP'D:	2-11-80	
4	REVISED PER ECN #14151 APP'D:	2-11-80	
5	REVISED PER ECO #17827 APP'D: 1-30-81	1-30-81	JBC

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	ER	7-3-79	E ENGR	
CHK		13 Feb 80	M ENGR	
			MFG ENGR	

MATERIAL

MODEL NO. ARCHIVER/SYSTEM 5

SEE ENGRG. SPECIFICATIONS

TITLE: MOTHERBOARD

FINISH

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH

SCALE — SHT 5 OF 5

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7546	D	7546	5

D 7546

DO NOT SCALE

17.4MHz (3CC)(3FZ)

17.4MHz (3F9)(3B11)(3C9)(4E11)

BAB0, BAB1 (4FL)

BAB0 – BAB12 (2G11)

BAB0 – BAB3 (3G11)

MREQ (1B8)

RAM SEL (1D7)

WR (1B8)

POR (4D5,1B5)

WAIT (3A6)

PROM SEL

RAM SEL (1G7)

CRT RAM SEL (2A10)(3A8)

SDTR (1D5)

PR REST (4E3)

BLINK (3B9)

NO BLINK (3A9)

BLK CR (3B3)

S DYCR (3B3)

BEEP (4A10)

RATE SEL (4C11)

CTC SEL (4D6)

PIO SEL (4F5)

CRT CONTROL SEL (3E11)

PRINTER REG SEL (4D3)

STATUS REG SEL (4F2)

UART SEL (4C11)

M1 (4E6)

MREQ (1G7)

IORQ (4E6)

RD (2B10)(4E6)(4C11)

WR (2B10)(4E3)(4C11)(1E6)

DB0 – DB7 (4G11)(3F11)

BDB0 – BDB7 (2G3)

DTR (14)

TEST DB0 DB1 DB2 DB3

CLICKER

CLG2 CLG1

MTD EXTERNAL

SEE NOTE 1 SHT 8

SEE NOTE 2 SHT. 8

SEE SHT 8

REVISION	BY	DATE	APPROVED
	DWN	6/8/77	E ENGR
	CHK		M ENGR
			MFG ENGR

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL

FINISH

MODEL NO. 2236 E

SEE ENGRG. SPECIFICATIONS

No.

TOL. EX. AS NOTED

.XX ± FRAC. ±

.XXX ± ANG. ± FINISH √

SCALE 1 UNIT / OF 8

TITLE SINGLE BOARD TERMINAL ELECTRONICS

SEE CHART | D 7592 | 26

WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.

"E" SIZE PKG.

DO NOT SCALE

$C_0 - C_6$ (3G9)

$BAB_0 - BAB_{12}$ (1G7)

$R_0 - R_4$ (3G9)

$BDB_0 - BDB_7$ (1E1)

$CC_0 - CC_7$ (3E7)

$DC_0 - DC_7$ (3C10)

$\overline{RD}$ (1B8)

$\overline{GATE}$ (3A6)

$\overline{WR}$ (1B8)

CRT RAM SELECT (1D7)

SW MUX (3B7)

SEE SHT 8

REVISION	BY	DATE	APPROVED BY	DATE
	DWN	6/8/78	E ENGR	
	CHK		M ENGR	
			MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL

FINISH

MODEL NO. 2236E

SEE ENGRG. SPECIFICATIONS No.

TOL. ER. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH √

SCALE NONE SHT 2 OF 8

TITLE SINGLE BOARD TERMINAL ELECTRONICS

SEE CHART | D | 7592 | 26

WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.

D 7592

8½" SIZE ANS.

"THIS DRAWING AND THE DATA SHOWN THEREON ARE THE CONFIDENTIAL PROPERTY OF, AND ARE PROPRIETARY TO, WANG LABORATORIES, INC.; THIS DRAWING AND THE DATA SHOWN THEREON MAY NOT BE MADE PUBLIC WITHOUT THE WRITTEN CONSENT OF WANG LABORATORIES, INC. IF FOR ANY REASON THIS DRAWING IS PERMITTED BY WANG TO LEAVE THE PHYSICAL CUSTODY OF THE COMPANY, IT IS RETURNABLE UPON THE DEMAND OF WANG LABORATORIES, INC."

DO NOT SCALE

WANG LABORATORIES, INC.
LOWELL, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN JB	6/8/79	E ENGR	
CHK		M ENGR	
		MFG ENGR	

MATERIAL

MODEL NO. 2236E

SEE ENGRG. SPECIFICATIONS

No.

FINISH

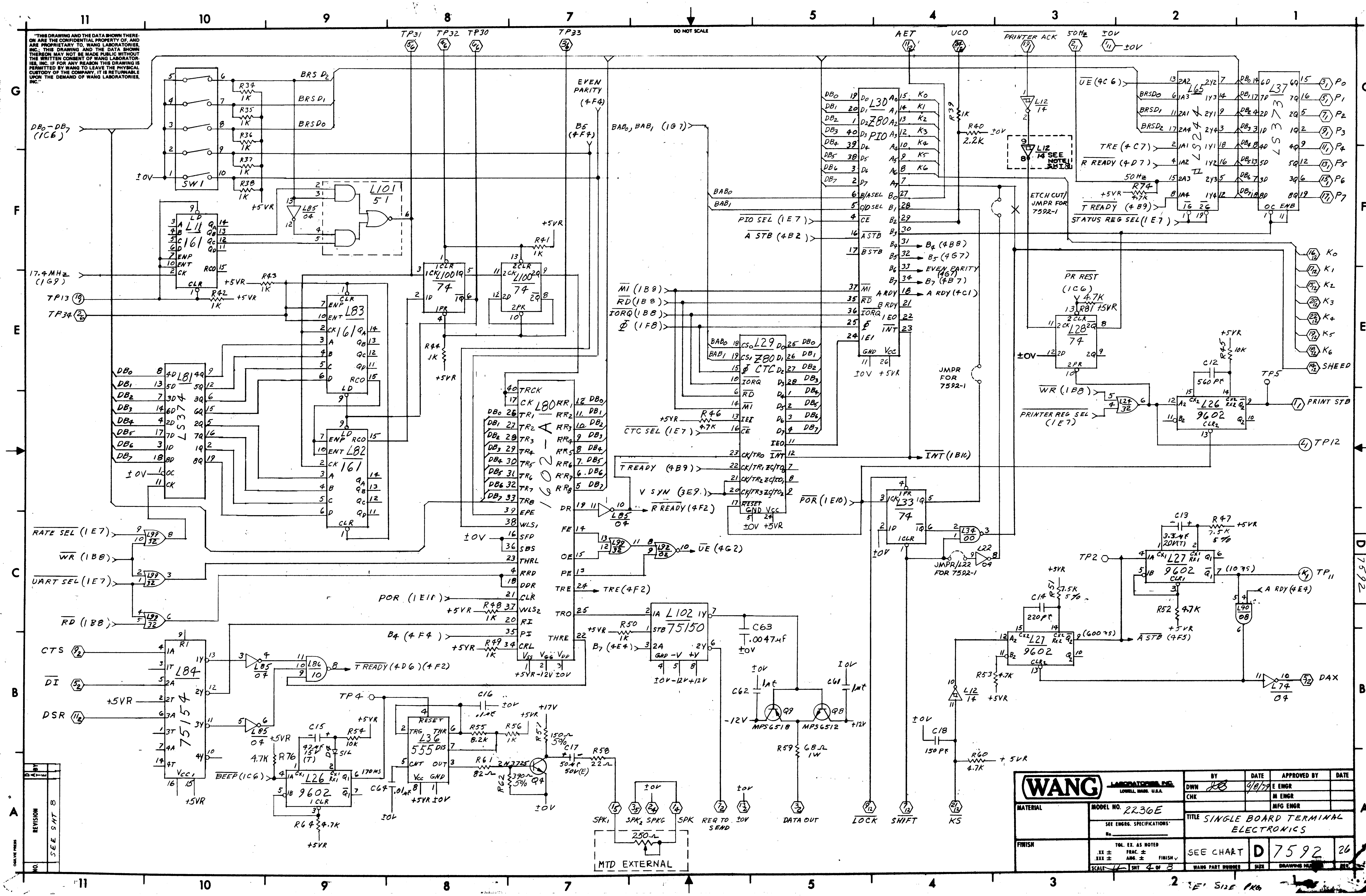
TOL. EX. AS NOTED
.XX ± FRAC. ±
.XXX ± ANG. ± FINISH ✓

SCALE — SHT 3 OF 8

TITLE SINGLE BOARD TERMINAL ELECTRONICS

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	D	7592	26

"E" SIDE PKG



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DO NOT SCALE
TP31
TP32
TP30
TP33
AET
UCO
PRINTER ACK
50 Hz
±0V
EVEN PARITY (4F4)
B5 (4F4)
BAB0, BAB1 (1G7)
DB0-DB7 (1C6)
SW1
BRS D2
BRS D1
BRS D0
L101 51
L85 04
L11 161
17.4 MHz (1G9)
TP13
TP34
L83 161
L82 161
L81 LS374
L100 74
L80 1602-A
L30 Z80 PIO
L29 Z80 CTC
L65 LS244
L37 LS373
L12 14
SEE NOTE 1 SH. 8
ETCH CUT/ JMPR FOR 7592-1
UE (4C6)
TRE (4C7)
R READY (4D7)
T READY (4B9)
STATUS REG SEL (1E7)
PIO SEL (1E7)
A STB (4B2)
M1 (1B8)
RD (1B8)
IORQ (1B8)
Φ (1F8)
CTC SEL (1E7)
T READY (4B9)
V SYN (3E9)
R READY (4F2)
POR (1E10)
INT (1B10)
L28 74
PR REST (1C6)
L26 9602
PRINT STB
WR (1B8)
PRINTER REG SEL (1E7)
TP5
TP12
JMPR FOR 7592-1
L33 74
L34 00
L22 04
JMPR/L22 FOR 7592-1
L27 9602
TP2
TP11
A RDY (4E4)
A STB (4F5)
L40 08
L74 04
DAX
RATE SEL (1E7)
WR (1B8)
UART SEL (1E7)
RD (1B8)
L99 32
L92 32
L92 02
UE (4G2)
TRE (4F2)
POR (1E10)
B4 (4F4)
L102 75150
B7 (4E4)
C63 .0047 µf
CTS
DI
DSR
L84 75154
L86 10
T READY (4D6)(4F2)
TP4
L36 555
2N3725 Q4
MPS6518 Q9
MPS6512 Q8
BEEP (1C6)
L26 9602
SPK1
SPK2
SPKG
SPK
REQ TO SEND
DATA OUT
LOCK
SHIFT
KS
K0 K1 K2 K3 K4 K5 K6
SHEED
P0 P1 P2 P3 P4 P5 P6 P7
250 Ω
MTD EXTERNAL
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MODEL NO. 2236E
TITLE SINGLE BOARD TERMINAL ELECTRONICS
SEE CHART
D 7592
SHT 4 OF 8
DWN 9/8/79
E ENGR
M ENGR
MFG ENGR
REVISION SEE SHT 8
'E' SIZE PKG

DO NOT SCALE

7 VAC-T1 (J3) — D5 SR5605 — C19 9.5K MF 15V — C20 9.5K MF 15V — ±0V
7VAC-T2 (J3) — D7 SR5605 — C21 1K MF 25V
D6 EM403 — D8 EM403

17 VAC-T1 (J3) — D9 A15A — C25 4K MF 30V — ±0V
17VAC-T2 (J3) — D11 A15A — C26 1.15K MF 50V
D10 EM403 — D12 EM403

±0V-T1 (J3)
±0V-T2 (J3)
±0V

U21 723: R65 680Ω, R66 1K, R67 2.2K, C22 .1MF, R68 1.5K, R69 .15Ω 5W 5%, C23 100PF, C24 .015MF 400V MYLAR, ±0V, +5VR

+17V

U20 723: C27 .01MF, R70 680Ω, R71 .15Ω 5W 5%, R72 1K, R73 680Ω, C28 100PF, C67 .047MF 100V (M), ±0V

Q6 MA7905: C29 .47MF 50V MYLAR, C30 1MF, ±0V
Q7 MA7912: C31 .47MF 50V MYLAR, C32 1MF, ±0V

MTD EXT 2N6282 Q8A
Q9A 2N6282 MTD EXT

+5VR, +17V, +12V, -5V, -12V

REVISION	BY	DATE
SEE SHT 8		

	BY	DATE	APPROVED BY	DATE
DWN	KB	6/8/79	E ENGR	
CHK			M ENGR	
			MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL

MODEL NO. 2236 E — SEE ENGRG. SPECIFICATIONS — No.

FINISH

TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH √

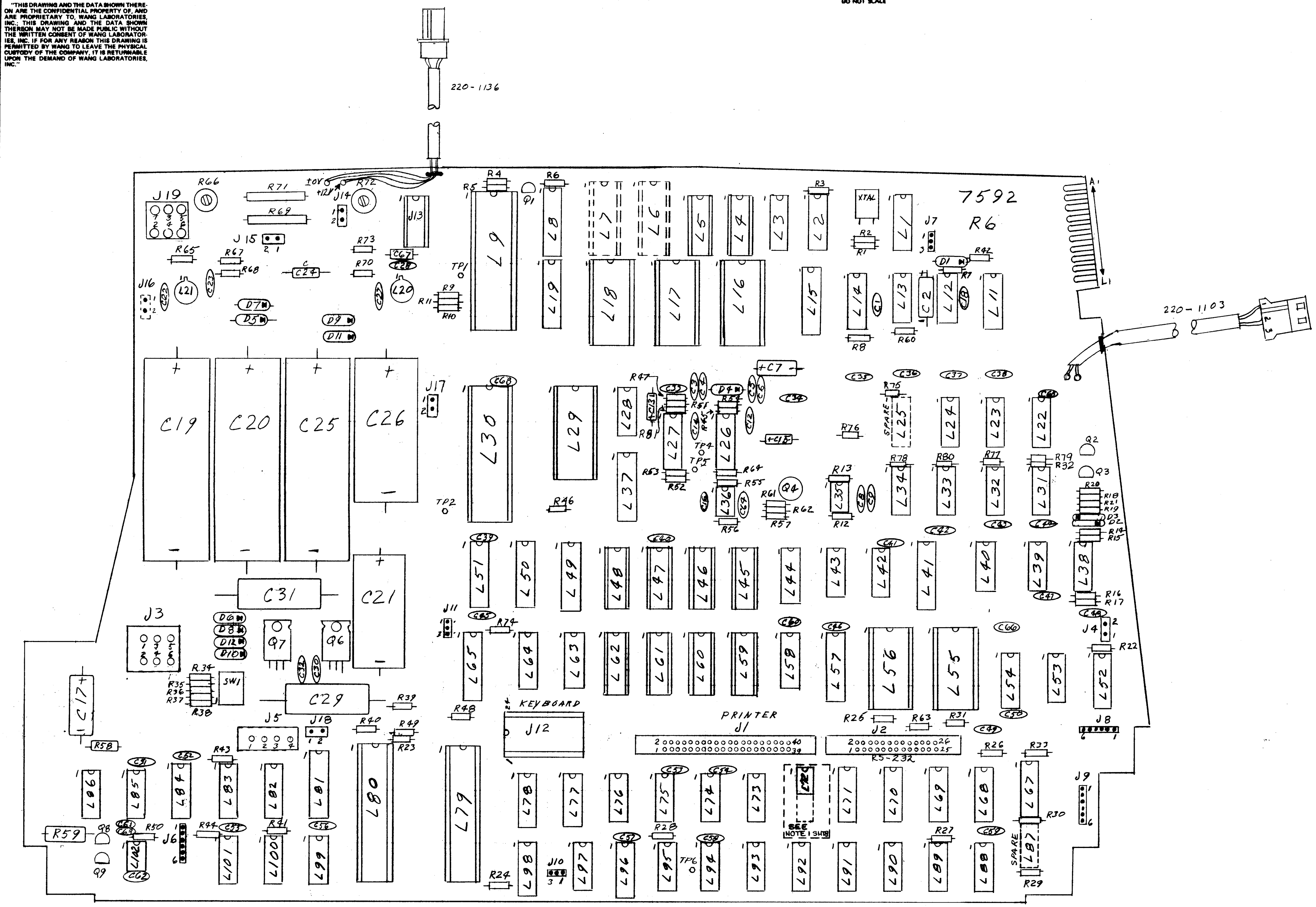
SCALE — SHT 5 OF 8

TITLE SINGLE BOARD TERMINAL ELECTRONICS

SEE CHART	D	7592	26
WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.

"E" SIZE PKG

DO NOT SCALE



REVISION	NO.	DATE	BY
SEE SHT 8			

			BY	DATE	APPROVED BY	DATE
WANG LABORATORIES INC. LOWELL, MASS. U.S.A.			DWN JB	6/8/79	E ENGR	
			CHK		M ENGR	
					MFG ENGR	
MATERIAL	MODEL NO. 2236E SEE ENGRG. SPECIFICATIONS No.		TITLE SINGLE BOARD TERMINAL ELECTRONICS			
FINISH	TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH ✓		SEE CHART	D	7592	26
	SCALE 1:1	SHT 6 OF 8	WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.

"E" SIDE PKG

DO NOT SCALE

210 = 209 + 378 OR 377

210	209	L45,47-48,59-62	L9	L16	L17	L18	L29	L30	L55	L56	L79	L80
2236 DW 7592-1	7592-1	377-0341-L	377-0344	377-0317	377-0348		377-0343	377-0342	378-2447-R1	377-0323	377-0372	377-0071
7592-A	7592	377-0341-L	377-0344	378-2446-R2	378-4095-R2	378-4094-R2	377-0343	377-0342	378-2447-R1	377-0323	377-0372	377-0071
AZERTY 7592-B	7592	377-0341-L	377-0344	378-2620	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2415	377-0372	377-0071
SWEDISH 7592-C	7592	377-0341-L	377-0344	378-2624	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2416	377-0372	377-0071
U.K. 7592-D	7592	377-0341-L	377-0344	378-2627	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2418	377-0372	377-0071
GERMAN 7592-E	7592	377-0341-L	377-0344	378-2629	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2420	377-0372	377-0071
SWISS/GER. 7592-F	7592	377-0341-L	377-0344	378-2620	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2419	377-0372	377-0071
SWISS/FR. 7592-G	7592	377-0341-L	377-0344	378-2625	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2414	377-0372	377-0071
NL 7592-H	7592	377-0341-L	377-0344	378-2630	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2419	377-0372	377-0071
NO. 7592-J	7592	377-0341-L	377-0344	378-2622	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2417	377-0372	377-0071
CYRILLIC 7592-K	7592	377-0341-L	377-0344	378-2628	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2413	377-0372	377-0071
DANISH 7592-L	7592	377-0341-L	377-0344	378-2623	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2417	377-0372	377-0071
GR/LT 7592-M	7592	377-0341-L	377-0344	378-2621-R1	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2421	377-0372	377-0071
AL 7592-N	7592	377-0341-L	377-0344	378-2647	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2648	377-0372	377-0071
DIAG. 7592-P	7592	377-0341-L	377-0344	378-2519	378-4144-R1	378-4143-R1	377-0343	377-0342			377-0372	377-0071
KATAKANA 7592-Q	7592	377-0341-L	377-0344	378-2500	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2044-R3	377-0372	377-0071
EURO-SPAN. 7592-R	7592	377-0341-L	377-0344	378-2673	378-4095-R1	378-4094-R1	377-0343	377-0342	378-2447-R1	378-2672	377-0372	377-0071
REPAIR AID 7592-S	7592	377-0341-L	377-0344	378-2673	378-4227	378-4226	377-0343	377-0342	378-2447-R1	378-2672	377-0372	377-0071
ICELANDIC 7592-T	7592	377-0341-L	377-0344	378-2706			377-0343	377-0342	378-2447-R1	378-2705	377-0372	377-0071
CANADIAN 7592-U	7592	377-0341-L	377-0344	378-2716			377-0343	377-0342	378-2447-R1	378-2715	377-0372	377-0071

NO.	REVISION	BY	DATE
	SEE SHEET 8		

	BY	DATE	APPROVED BY	DATE
DWN	[illegible]	11/83	E ENGR	
CHK			M ENGR	
			MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL

FINISH

MODEL NO. 2236E
SEE ENGRG. SPECIFICATIONS
No.

TOL. EX. AS NOTED
.XX ± FRAC. ±
.XXX ± ANG. ± FINISH √

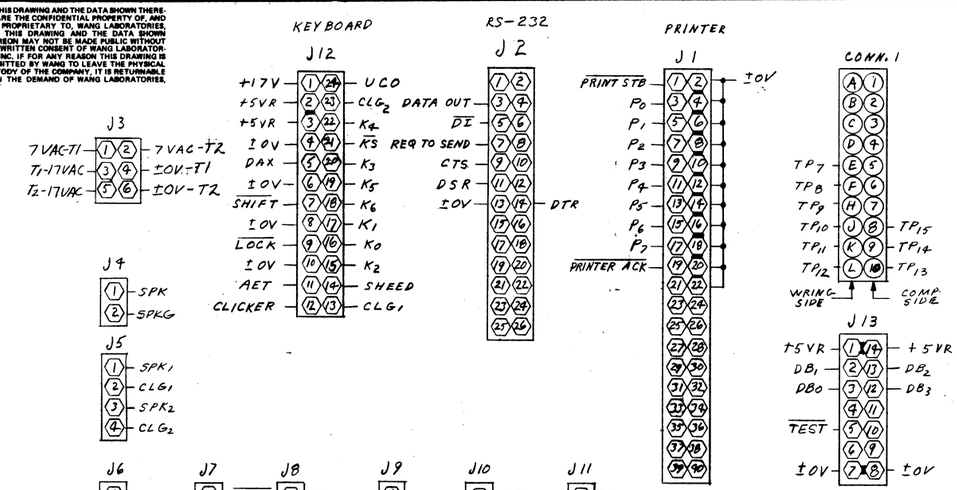
SCALE SHT 7 OF 8

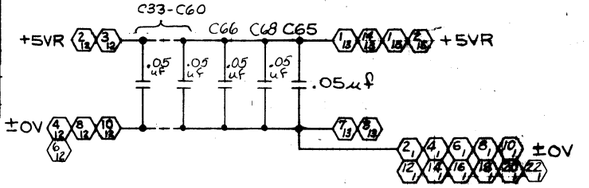
TITLE SINGLE BOARD TERMINAL ELECTRONICS

SEE CHART | D | 7592 | 26
WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.

"B" SIZE PRT

D 7592





DO NOT SCALE

COMPONENT	W.L. PART NO.	TYPE
J1	350 - 0201	40 POS CONN.
J2	350 - 0200	26 POS CONN.
J3, 19	654 - 1186	6 POS CONN.
J4, 14 - 18	654 - 1198	2 POS HEADER
J5	654 - 1194	4 POS HEADER
J6, 8, 9	654 - 0106	6 POS HEADER
J7, 10, 11	654 - 0104	3 POS HEADER
J12	376 - 9118	24 POS CONN.
J13	376 - 9001	14 POS CONN.
L9, 30, 79, 80	376 - 9011	SOCKET 40 PIN
L4, 5, 45 - 48, 59 - 62	376 - 9014	SOCKET 18 PIN
L6, 7	376 - 9010	SOCKET 22 PIN
L16, 17, 18, 55, 56	376 - 9003	SOCKET 24 PIN
L29	376 - 9015	SOCKET 28 PIN

NOTE:

1. THESE COMP MAY OR MAYNOT BE ON BOARD. E REV 2 & BELOW COMP NOT PRESENT. E REV 3 & ABOVE COMP SHOULD BE PRESENT. SEE 1D7, 1D8, 1B3 & 4F3.
2. PLACE AN OPAQUE COVERING OVER THE ERASURE WINDOW OF L16, 17, 18

LOCATION	W.L. PART No.	I.C. TYPE
L1	376 - 0312	74LS75
L2, 11, 82, 83	376 - 0094	74161
L3	376 - 0226	74LS139
L4, 5, 45 - 48, 59 - 62	SEE CHART	
L6, 7	SPARE	
L8, 19, 65	376 - 0288	74LS244
L9	SEE - CHART	
L10, 66		NOT USED
L12	376 - 0139	7414
L13	376 - 0197	74S04
L14, 98	376 - 0294	74LS138
L15	376 - 0297	74LS240
L16, 17, 18	SEE CHART	
L20, 21	376 - 0066	723
L22, 42, 74, 85	376 - 0010	7404
L23	376 - 0125	7427
L24, 43, 93, 99	376 - 0093	7432
L25, 87		SPARE
L26, 27	376 - 0104	9602
L28, 31, 32, 33, 89, 100	376 - 0006	7474
L29	SEE - CHART	
L30	SEE - CHART	
L34, 53, 73, 90, 97	376 - 0002	7400
L35, 36	376 - 0126	555
L37, 41, 57	376 - 0310	74LS373
L38	376 - 0085	7409
L39, 92	376 - 0016	7402
L40	376 - 0081	7408
L44	376 - 0176	74367
L49, 50, 51	376 - 0285	74LS245
L52	376 - 0270	74S175
L54, 70	376 - 0109	74166
L55, 56	SEE CHART	
L58	376 - 0049	74155
L63, 64, 78	376 - 0082	74157
L67	376 - 0186	7497
L68	376 - 0191	74160
L69	376 - 0119	74175
L71	376 - 0232	74LS298
L75	376 - 0209	74LS10
L76, 88	376 - 0199	74S02
L77	376 - 0301	74S158
L79	SEE - CHART	
L80	SEE - CHART	
L81	376 - 0286	74LS374
L84	376 - 0077	75154
L86	376 - 0003	7410
L91	376 - 0194	7411
L94	376 - 0206	74S260
L95	376 - 0271	74S86
L96	376 - 0309	74LS378
L101	376 - 0012	7451
L102, 72	376 - 0076	75150

I.C. TYPE	LOCATION	SPARE
7400	L34	2
7402	L39	1
74S02	L88	2
7404	L22	3
	L42	1
	L85	1
7408	L40	1
7410	L86	2
74LS10	L75	2
7411	L91	2
7432	L24	1
	L93	2
7451	L101	1
7474	L28	1
7414	L12	2
7432	L43	1
74S86	L95	1

COMPONENT	W.L. PART NO	TYPE
R1, 2	330 - 2027	270Ω 1/4W 10%
R3, 9 - 12, 22 - 29, 31, 32, 33, 46, 52, 53, 60, 64, 74, 75 - 82	330 - 3047	4.7K 1/4W 10%
R4, 34 - 39, 41 - 44, 48, 49, 50, 56, 83	330 - 3010	1K 1/4W 10%
R5, 8	330 - 2033	330Ω 1/4W 10%
R6	330 - 1010	10Ω 1/4W 10%
R7, 40, 67	330 - 3022	2.2K 1/4W 10%
R13	330 - 4047	47K 1/4W 10%
R14	330 - 2048	470Ω 1/4W 5%
R15	330 - 1057	56Ω 1/4W 5%
R16	330 - 2013	120Ω 1/4W 5%
R17	330 - 2011	100Ω 1/4W 5%
R18, 19	330 - 3052	5.1K 1/4W 5%
R20, 21, 58	330 - 1022	22Ω 1/4W 10%
R30	330 - 2022	220Ω 1/4W 10%
R45, 54	330 - 4010	10K 1/4W 10%
R47, 51	330 - 3076	7.5K 1/4W 5%
R55	330 - 3082	8.2K 1/4W 10%
R57	330 - 2016	150Ω 1/4W 5%
R59	332 - 1068	68Ω 1W 10%
R61	330 - 1082	82Ω 1/4W 10%
R62	330 - 2040	390Ω 1/4W 5%
R65, 70, 73	330 - 2068	680Ω 1/4W 10%
R66, 72	336 - 1001	1K POT
R68, 63	330 - 3015	1.5K 1/4W 10%
R69, 71	334 - 0015	.15Ω 5W 5%
C1, 9, 64, 27	300 - 1903	.01μF 25V CER
C2, 15	300 - 4020	47μF 15V (T)
C3 - 6, 30, 32, 61, 62	300 - 1931	1μF 50V CER
C7	300 - 4022	15μF 20V (T)
C67	300 - 2147	.047μF 100V (M)
C12	300 - 1560	560 PF 500V CER
C13	300 - 4082	3.3μF 20V (T)
C16, 22	300 - 1930	.1μF 50V CER
C17	300 - 3010	50μF 50V ELEC
C18	300 - 1150	150 PF 500V CER
C19, 20	300 - 3081	9.5KμF 15V ELEC
C21	300 - 3062	1KμF 25V ELEC
C23, 28	300 - 1100	100 PF 500V CER
C24	300 - 2417	.015μF ~~400V~~ MYLAR
C25	300 - 3080	4KμF 30V ELEC
C26	300 - 3055	1.15KμF 50V ELEC.
C29, 31	300 - 2248	.47μF 50V MYLAR
C8, 33 - 60, 65, 66, 68	300 - 1900	.05μF 12V CER
C63	300 - 1920	.0047uF 100V CER
C14	300 - 1220	220PF 500V CER
Q1	375 - 1050	SPS6551
Q2, 9	375 - 1014	MPS6518
Q3	375 - 1062	MPS6514
Q4	375 - 1027	2N3725
Q6	374 - 0002	μA7905
Q7	374 - 0003	μA7912
Q8	375 - 1012	MPS6512
D1, 2, 3, 4	380 - 1001	SIL DIODE 30V 100MA
D9, 11	380 - 3008	A15A RECT.
D6, 8, 10, 12	380 - 4000	EM403/1N4004
D5, 7	380 - 3015	SRS605
XTAL	321 - 0029	17.4000MHz
SW1	325 - 1501	SPST 5 POS.

MEMONIC	COODINATE
AET	4G4
CLG1	1A4
CLG2	1A5
CLICKER	1A5
CTS	4B11
DATA OUT	4A5
DAX	4B1
$DB_0 - DB_3$	1A7
$\overline{DI}$	4B11
DSR	4B11
DTR	1B1
$K_0 - K_6$	4E1
$\overline{KS}$	4A4
$\overline{LOCK}$	4A5
$P_0 - P_7$	4G1
PRINTER ACK	4G3
$\overline{PRINT\ STB}$	4D1
REQ TO SEND	4A6
SHEED	4E1
$\overline{SHIFT}$	4A4
$\overline{TEST}$	1A7
TP7	3D1
TP8	3G2
TP9	3C1
TP10	3E1
TP11	4C1
TP12	4D1
TP13	4E11
TP14	1F11
TP15	1F11
TP16	3F1
TP17	3B1
TP18	3B2
TP19	3A4
TP20	3F1
TP21	3D1
TP22	3A10
TP23	3F1
TP24	3C1
TP25	3A5
TP26	3E1
TP27	3C1
TP28	3G9
TP29	3G7
TP30	4G8
TP31	4G8
TP32	4G8
TP33	4G7
TP34	4E11
UCO	4G4
17.4 MHZ	1G10
50 HZ	4G3
SPK1	4A7
SPK2	4A6
SPKG	4A6
SPK	4A6

D 7592

E-REV	E-REV
5	0
7592	7592-1

NO.	DATE	BY	REVISION
0/0	6-8-79	JB	ORG. PER DWR# E657 APP'D
1/0	6-8-79	JB	REV. PER ECN #11118 + 11192 APP'D
2/0	6-8-79	JB	REV. PER ECN # 11774, 11762 APP'D
3/0	6-20-79	L.D.	REV. PER ECN # 11900, 11987 APP'D
4/0	8-21-79	JB	REV. PER. ECN# 12081, 12304 APP'D
5/0	8-21-79	KB	REV. PER # 12312 ECN# 12374. APP'D
6/1	9-17-79	JB	REV. PER ECN # 12345 APP'D
7/2	9-17-79	JB	REV. PER ECN # 12482 APP'D
8/2	9-17-79	JB	REV PER ECN #12494. APP'D
9/3	11/12/79	BA	REV PER ECN #12947 APP'D:
10/3	11/12/79	BA	REV PER ECN #12948 & 12954 APP'D:
11/4	11/12/79	BA	REV PER ECN #13176 APP'D:
12/4	11.19.79	L.D.	REVISED PER ECN# 13319, 13393 APP'D:
13/4	12.7.79	L.D.	REVISED PER ECN# 13495 APP'D:
14/2	12.11.79	L.D.	REVISED PER ECN# 13952 APP'D RA 12/11/79
15/2	12.11.79	L.D.	REVISED PER ECN# 13689 + 13713 APP'D: RA
16/2	2.25.80	L.D.	REVISED PER ECN# 14074 APP'D: 2-25-80
17/2	3-8-80	JB	REVISED PER ECN# 14247 APP'D 3-11-80
18/2	3-8-80	JB	REVISED PER ECN# 14456 APP'D 3-11-80
19/2	4.1.80	L.D.	REVISED PER ECN# 14681 APP'D: 4-1-80
20/2	6.18.80	AM	REVISED PER ECN# 15278 APP'D: 6-18-80
21/2	9.9.80	L.D.	REVISED PER ECN# 15572, 16036 APP'D: 9-15-80
22/5	10.22.80	L.D.	REVISED PER ECN# 16631 APP'D: 10-23-80
23/5	12.31.80	T.K.	REVISED PER ECO# 17371 APP'D: 5 Jan 81
24/5	2.13.81	JEP	REVISED PER ECO# 17773 APP'D: 19 FEB 81
25/5	3.13.81	H.K.	REVISED PER ECO# 18485 APP'D: 23 MAR 81
26/5	3.27.81	H.K.	REVISED PER ECO# 18855 APP'D: 3-27-81

OGILVIE PRESS

WANG LABORATORIES, INC.
LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	JB	6/8/79	E ENGR W.C.P.	12/11/79
CHK	U. Grant	11/20/79	M ENGR	
			MFG ENGR	

MATERIAL

MODEL NO. 2236E

SEE ENGRG. SPECIFICATIONS No.

FINISH

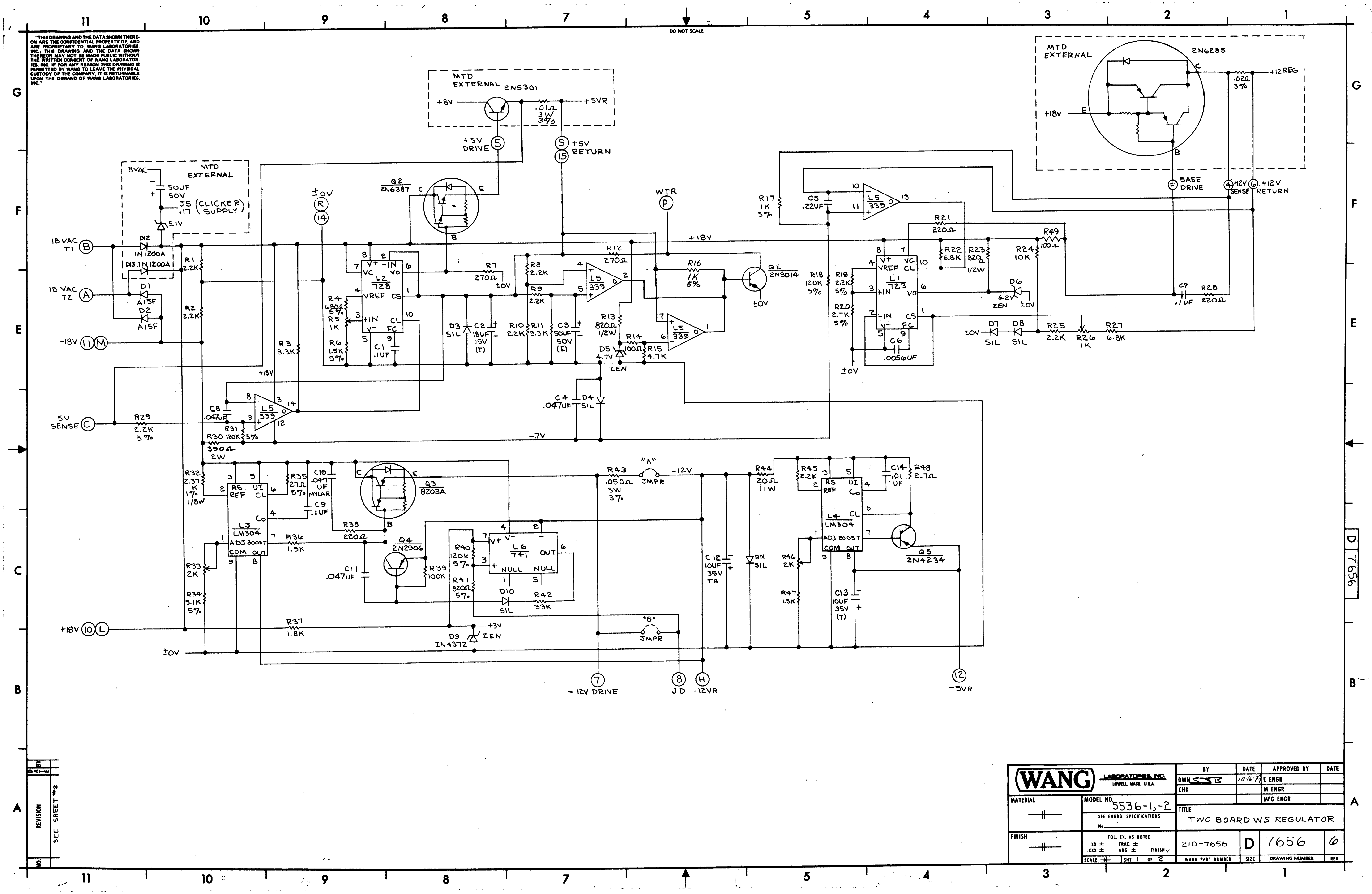
TOL. EX. AS NOTED
.XX ± FRAC. ±
.XXX ± ANG. ± FINISH ✓

TITLE SINGLE BOARD TERMINAL ELECTRONICS

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	D	7592	26

SCALE — SHT 8 OF 8

"E" SIZE Pkg

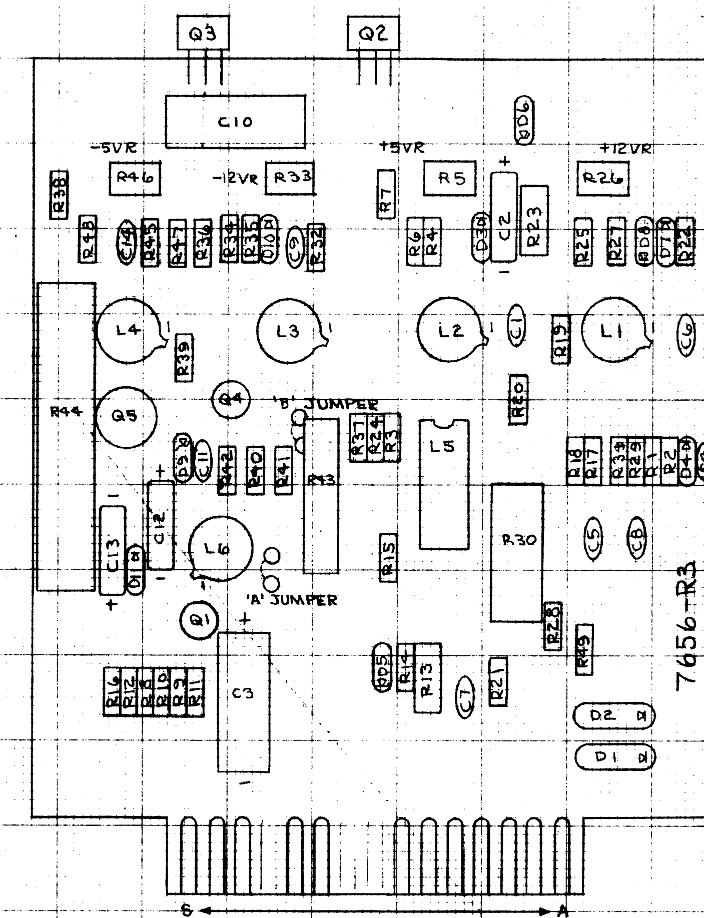

DO NOT SCALE
MTD EXTERNAL 2N5301
+8V
+5VR
.01Ω 3W 3%
+5V DRIVE
+5V RETURN
MTD EXTERNAL 2N6285
+12 REG
.02Ω 3%
+18V
BASE DRIVE
+12V SENSE
+12V RETURN
8VAC
MTD EXTERNAL
50UF 50V
J5 (CLICKER) +17 SUPPLY
5.1V
18 VAC T1
18 VAC T2
D12 1N1200A
D13 1N1200A
D1 A15F
D2 A15F
-18V
Q2 2N6387
±0V
WTR
+18V
L2 723
L5 339
L1 723
Q1 2N3014
R17 1K 5%
C5 .22UF
R21 220Ω
R49 100Ω
R22 6.8K
R23 82Ω 1/2W
R24 10K
D6 6.2V ZEN
C7 .1UF
R28 220Ω
R18 120K 5%
R19 2.2K 5%
R20 2.7K 5%
C6 .0056UF
D7 SIL
D8 SIL
R25 2.2K
R26 1K
R27 6.8K
R1 2.2K
R2 2.2K
R3 3.3K
R4 680Ω 5%
R5 1K
R6 1.5K 5%
C1 .1UF
R7 270Ω
R8 2.2K
R9 2.2K
R12 270Ω
R16 1K 5%
D3 SIL
C2 18UF 15V (T)
R10 2.2K
R11 3.3K
C3 50UF 50V (E)
R13 820Ω 1/2W
R14 100Ω
R15 4.7K
D5 4.7V ZEN
C4 .047UF
D4 SIL
5V SENSE
R29 2.2K 5%
C8 .047UF
R31 120K 5%
R30 390Ω 2W
-7V
R32 2.37K 1% 1/8W
L3 LM304
R35 27Ω 5%
C10 .047 UF MYLAR
C9 .1UF
Q3 8203A
R38 220Ω
R36 1.5K
Q4 2N2906
C11 .047UF
R39 100K
R40 120K 5%
R41 820Ω 5%
L6 741
D10 SIL
R42 33K
R33 2K
R34 5.1K 5%
+18V
R37 1.8K
D9 1N4372
+3V ZEN
±0V
R43 .050Ω 3W 3%
"A" JMPR
-12V
"B" JMPR
C12 10UF 35V TA
D11 SIL
R44 20Ω 11W
R45 2.2K
L4 LM304
C14 .01 UF
R48 2.7Ω
Q5 2N4234
R46 2K
R47 1.5K
C13 10UF 35V (T)
-12V DRIVE
JD
-12VR
-5VR
REVISION
SEE SHEET #2
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MATERIAL
FINISH
MODEL NO 5536-1,-2
SEE ENGRG. SPECIFICATIONS
TOL. EX. AS NOTED
SHT 1 OF 2
DWN
10-16-7
E ENGR
M ENGR
MFG ENGR
TITLE TWO BOARD WS REGULATOR
210-7656
D
7656
6
WANG PART NUMBER
SIZE
DRAWING NUMBER
REV.

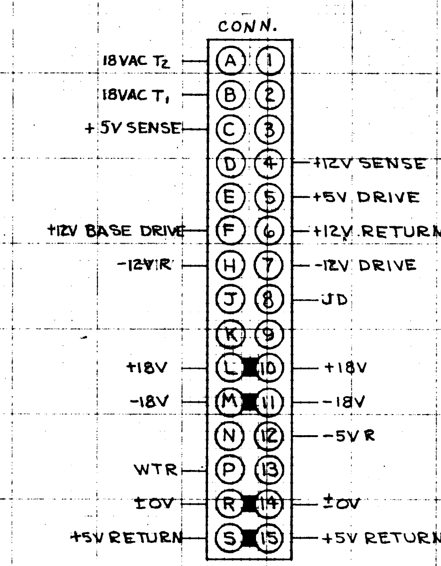
DO NOT SCALE

I.C. LOCATION	TYPE	W.L. NO.
L1,2	723	376-0666
L3,4	LM304	376-0134
L5	LM339	376-0240
L6	741C	376-0074

MNEMONIC	COORDINATE
BASE DRIVE	1 F2
	1 L L
JD	1 B6
WTR	1 F6
5V DRIVE	1 F8
5V SENSE	1 D11
+5V RETURN	1 F7
12V DRIVE	1 B7
12V RETURN	1 F1
12V SENSE	1 F2
18 VAC T1	1 F11
18 VAC T2	1 E11
±0V	1 F9
−5VR	1 B4
−12V	1 B6
+18V	1 B11
−18V	1 E11

COMPONENT	TYPE	W.L. NO.
R1,2,8,10,25,45	2.2K 10% 1/4W	330-3022
R3,11	3.3K 10% 1/4W	330-3033
R4	680Ω 5% 1/4W	330-2069
R5,26	1K ADJ. POT.	336-1014
R6	1.5K 5% 1/4W	330-3016
R7,12	270Ω 10% 1/4W	330-2027
R13,23	820Ω 10% 1/2W	331-2082
R14,49	100Ω 10% 1/4W	330-2010
R15	4.7K 10% 1/4W	330-3047
R17,16	1K 5% 1/4W	330-3011
R18,31,40	120K 5% 1/4W	330-5013
R19,29	2.2K 5% 1/4W	330-3023
R20	2.7K 5% 1/4W	330-3028
R21,28,38	220Ω 10% 1/4W	330-2022
R22,27	6.8K 10% 1/4W	330-3068
R24	10K 10% 1/4W	330-4010
R30	390Ω 10% 2W	337-2039
R32	2.37K 1% 1/8W	333-0093
R33,46	2K ADJ. POT.	336-1022
R34	5.1K 5% 1/4W	330-3052
R35	27Ω 5% 1/4W	330-1028
R37	1.8K 10% 1/4W	330-3018
R39	100K 10% 1/4W	330-5010
R41	820Ω 5% 1/4W	330-2083
R42	33K 10% 1/4W	330-4033
R43	.05Ω 3% 3W	334-0033
R44	20Ω —— 11W	334-0003
R48	2.7Ω 10% 1/4W	330-0027
R36,47	1.5K 10% 1/4W	330-3015
C1,7,9	.1UF 12V CER	300-1901
C2	18UF 15V TA	300-4018
C3	50UF 50V ELEC	300-3010
C4,8,11	.047uF 50V	300-1966
C5	.22UF 100V CER	300-1926
C6	.0056UF 500V CER	300-1515
C14	.01UF 25V CER	300-1903
C10	.047UF 100V MYL	300-2147
C12,13	10UF 35V. TA.	300-4032
D1,2	A15A RECTIFIER	380-3008
D3,4,7,8,10,11	SILICON 30V	380-1001
D5	IN5230 4.7V ZEN	380-2048
D6	IN 753A 6.2V ZEN	380-2062
D9	IN4372A 30V ZEN	380-2129
Q1	2N3014	375-0017
Q2	2N6387	375-1052
Q3	8203A	375-1053
Q4	2N2906A	375-1017
Q5	2N4234	375-1024





E-REV 3

D 7656

REV.	DATE	BY	REVISION
0	10-16-79	SDB	ORIGINATED PER DWR. #E758 APP'D: 11-29-79
1	10-16-79	SDB	REVISED PER ECN #12921 APP'D 11-29-79
2	10-16-79	SDB	REVISED PER ECN #12766 APP'D 11-29-79
3	10-27-79		REVISED PER ECN #13179 APP'D 11-29-79
4	10-23-80		REVISED PER ECN #16632 APP'D 10-30-80
5	2-17-81	TK	REVISED PER ECO #7779 APP'D
6	3-13-81		REVISED PER DWR #13310 APP'D

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

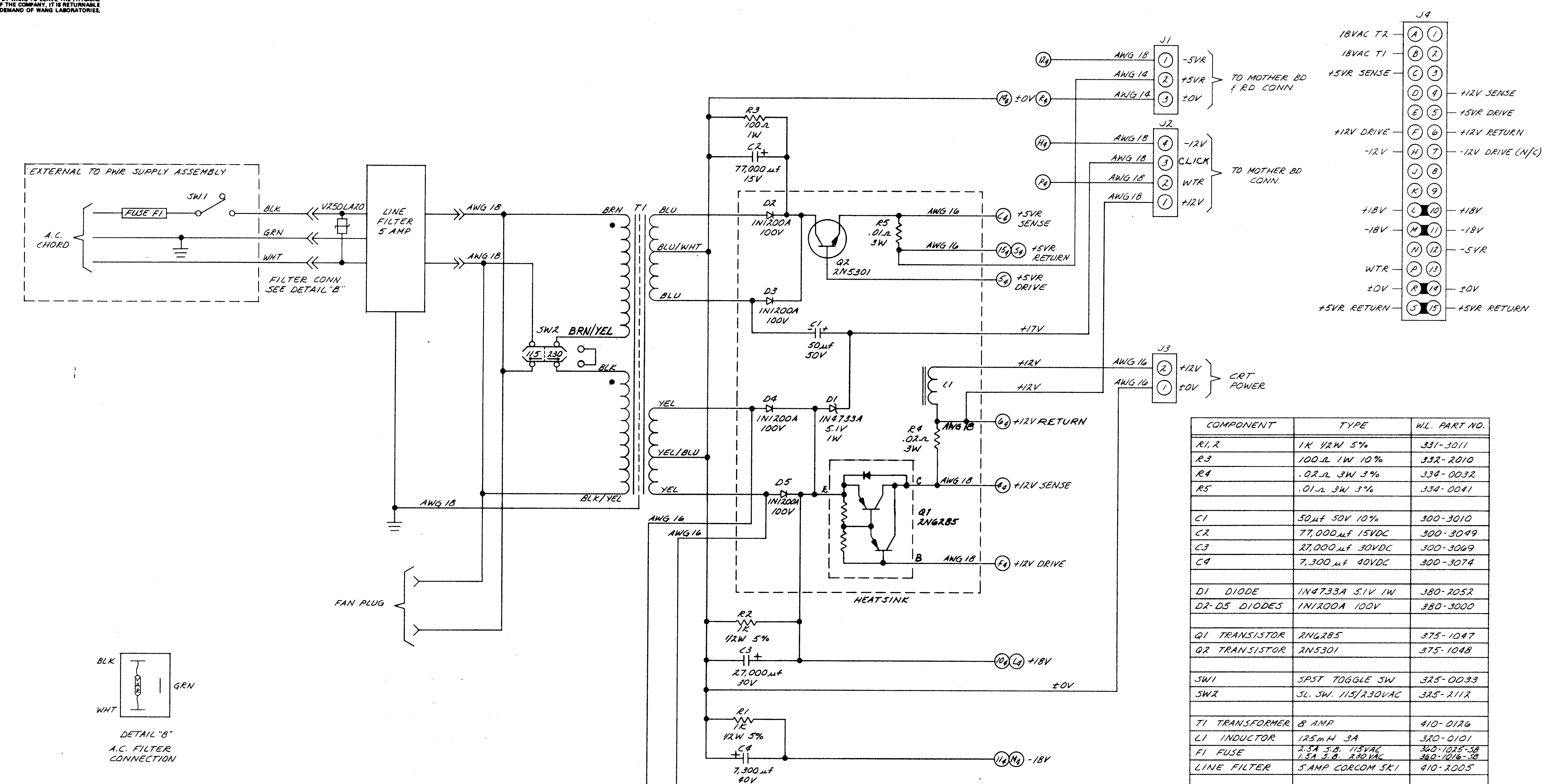
BY		DATE	APPROVED BY	DATE
DWN	SDB	10-16-79	E ENGR T. SOMMERS	11-29-79
CHK	F.L.L.	11-29-79	M ENGR	
			MFG ENGR	

MATERIAL —
FINISH —
MODEL NO. 5536-1,-2
SEE ENGRG. SPECIFICATIONS No.
TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH √
SCALE 1 SHT 2 OF 2

TITLE TWO BOARD WS REGULATOR

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7656	D	7656	6

DO NOT SCALE


EXTERNAL TO PWR SUPPLY ASSEMBLY
A.C. CHORD
FUSE F1
SW1
BLK
GRN
WHT
V250LA20
FILTER CONN SEE DETAIL "B"
LINE FILTER 5 AMP
AWG 18
SW2
115
230
BRN/YEL
BRN
BLK
BLK/YEL
T1
BLU
BLU/WHT
YEL
YEL/BLU
FAN PLUG
R3 100Ω 1W
C2 77,000µf 15V
D2 1N1200A 100V
D3 1N1200A 100V
D4 1N1200A 100V
D5 1N1200A 100V
D1 1N4733A 5.1V 1W
Q2 2N5301
R5 .01Ω 3W
R4 .02Ω 3W
C1 50µf 50V
L1
Q1 2N6285
HEATSINK
AWG 16
+5VR SENSE
+5VR RETURN
+5VR DRIVE
+17V
+12V
+12V RETURN
+12V SENSE
+12V DRIVE
R2 1K 1/2W 5%
C3 27,000µf 30V
R1 1K 1/2W 5%
C4 7,300µf 40V
+18V
±0V
-18V
18VAC T1
18VAC T2
J1
-5VR
+5VR
TO MOTHER BD & RD CONN
J2
-12V
CLICK
WTR
TO MOTHER BD CONN
J3
CRT POWER
J4
18VAC T2
18VAC T1
+5VR SENSE
+12V SENSE
+5VR DRIVE
+12V DRIVE
+12V RETURN
-12V
-12V DRIVE (N/C)
+18V
-18V
-5VR
WTR
+5VR RETURN
DETAIL "B"
A.C. FILTER CONNECTION

COMPONENT	TYPE	W.L. PART NO.
R1, 2	1K 1/2W 5%	331-3011
R3	100Ω 1W 10%	332-2010
R4	.02Ω 3W 3%	334-0032
R5	.01Ω 3W 3%	334-0041
C1	50µf 50V 10%	300-3010
C2	77,000µf 15VDC	300-3049
C3	27,000µf 30VDC	300-3069
C4	7,300µf 40VDC	300-3074
D1 DIODE	1N4733A 5.1V 1W	380-2052
D2-D5 DIODES	1N1200A 100V	380-3000
Q1 TRANSISTOR	2N6285	375-1047
Q2 TRANSISTOR	2N5301	375-1048
SW1	SPST TOGGLE SW	325-0033
SW2	SL. SW. 115/230VAC	325-2112
T1 TRANSFORMER	8 AMP	410-0126
L1 INDUCTOR	125mH 3A	320-0101
F1 FUSE	2.5A S.B. 115VAC 1.5A S.B. 230VAC	360-1025-SB 360-1016-SB
LINE FILTER	5 AMP CORCOM 5K1	410-2005
VARISTOR	V250LA20	380-5001

NO.	REVISION	DATE	BY
0	ORIGINATED PER DWR #E1066 APPD:	1-31-81	JSW

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	J. WOZNIAK	1-30-81	E ENGR	
CHK			M ENGR	
			MFG ENGR	

MATERIAL: —#—
FINISH: —#—
MODEL NO. 5536
SEE ENGRG. SPECIFICATIONS No.
TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH ✓
SCALE — SHT 1 OF 1

TITLE: INTERCONNECTION DIAGRAM

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
270-0580	D	7656-900	0

D 7656-900

DO NOT SCALE

+15V S.P.
HVD S.P.
±0V S.P.
-15V S.P.

C6 1000MF 25V
C10 1000MF 25V
C7 .1uf (C)
C5 33MF 10V
C3 .1MF (C)
C1 .001MF
C2 220PF MICA
R3 422K 1/8W 1%
R13 2.2K
R15 2.2K
R14 2.2K
R16 2.2K
R5 46.4K 1/8W 1%
R2 22.6K 1% 1/8W
R1 10K
R4 56.2K 1/8W 1%
R6 6.19K 1/8W 1%
C13 .1MF (C)
C4 .0047MF MYLAR

U1 SG3524
VCC 15
COMP 9
IT 1
SD 10
RO 16
NIT 2
OSCO 3
RT 6
CT 7
C1 12
E1 11
C2 13
E2 14
C.L.(+) 4
C.L.(-) 5
GND 8

+5V

R17 270Ω 1/2W
R7 680Ω
R8 4.7K
D1 S/L
R18 150Ω 2W
T2
Q3 MPSU04
R19 3.3Ω 1/2W
D6 S1F4
D5 S1F4
D4 S1F4
Q2 BU124
R21 47Ω
D7 S1F4
C11 2600MF 50V
D8 S1F4
C8 .1MF 600V MYLAR

T1
INPUT ANODE
HIGH VOLTAGE TRIPLER
GND FOCUS
R12 40 MEG 1.25W
ANODE
R24 15MEG 1W
R22 82K 1W
FOCUS
R23 15MEG 1W
C12 .001MF 6KV
S.P. DYN FOC
D9 S1A6F
S.P. G2
C9 .1MF 600V MYLAR

R9 10K
R11 48K
D3 IN5274
D2 IN5274
R10 4.7K
Q1 MPS6512

REVISION	BY	DATE
SEE SHT 2		

	BY	DATE	APPROVED BY	DATE
DWN		1-17-80	E ENGR	
CHK			M ENGR	
			MFG ENGR	

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL

MODEL NO. IP 41
SEE ENGRG. SPECIFICATIONS
No.

FINISH

TOL. EX. AS NOTED
.XX ± FRAC. ±
.XXX ± ANG. ± FINISH √

SCALE 1/1 SHT 1 OF 2

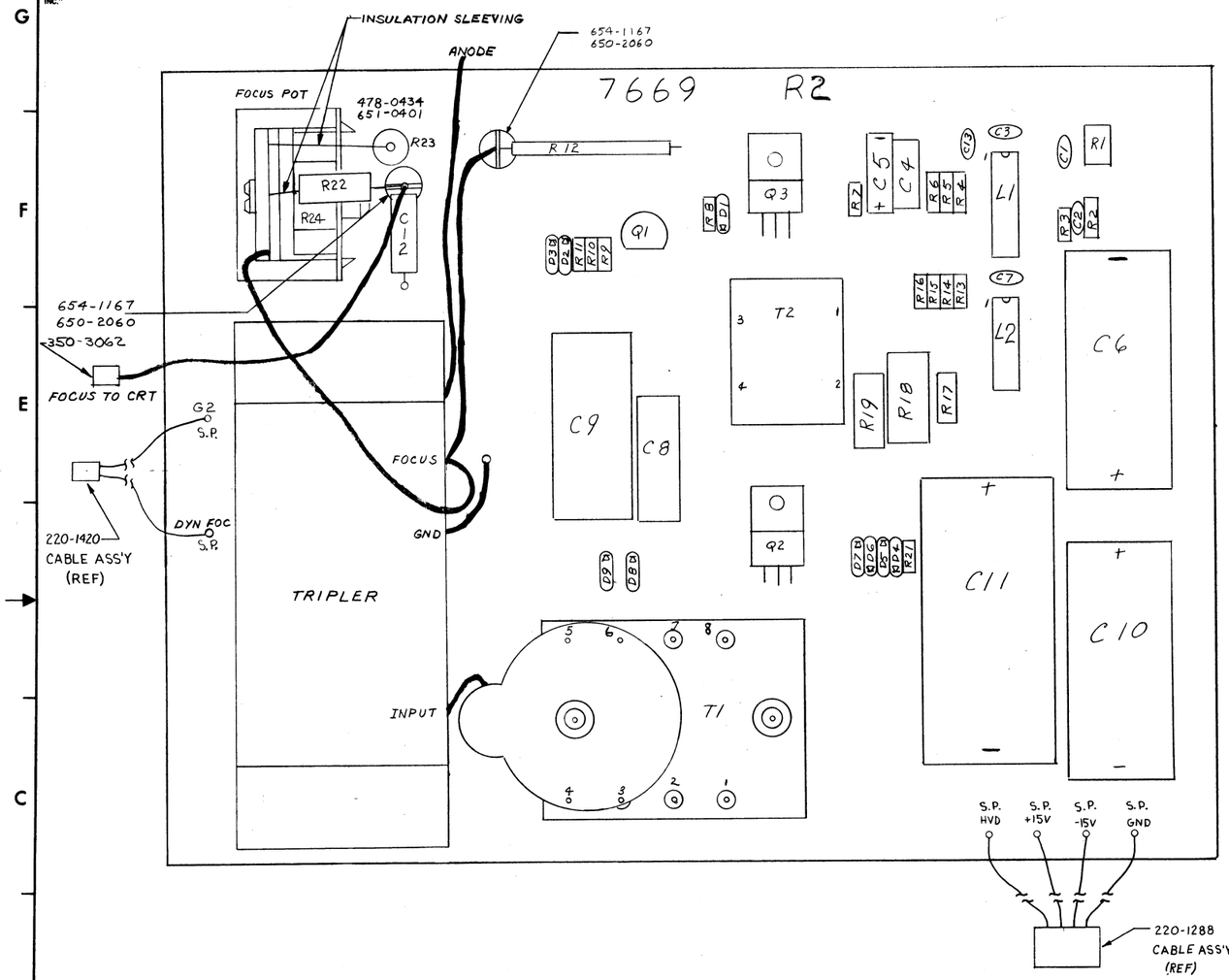
TITLE: CRT HIGH VOLTAGE SUPPLY

210-7669 | D | 7669 | 8
WANG PART NUMBER | SIZE | DRAWING NUMBER | REV.

D 7669

OGILVIE PRESS

DO NOT SCALE



I.C. LOCATION	W.L. PART NO.	TYPE
L1	376-0468	SG3524
L2	376-0028	7403
L1	376-9002	16 PIN SOCKET

I.C. TYPE	LOC	SPARES
7402	L2	2

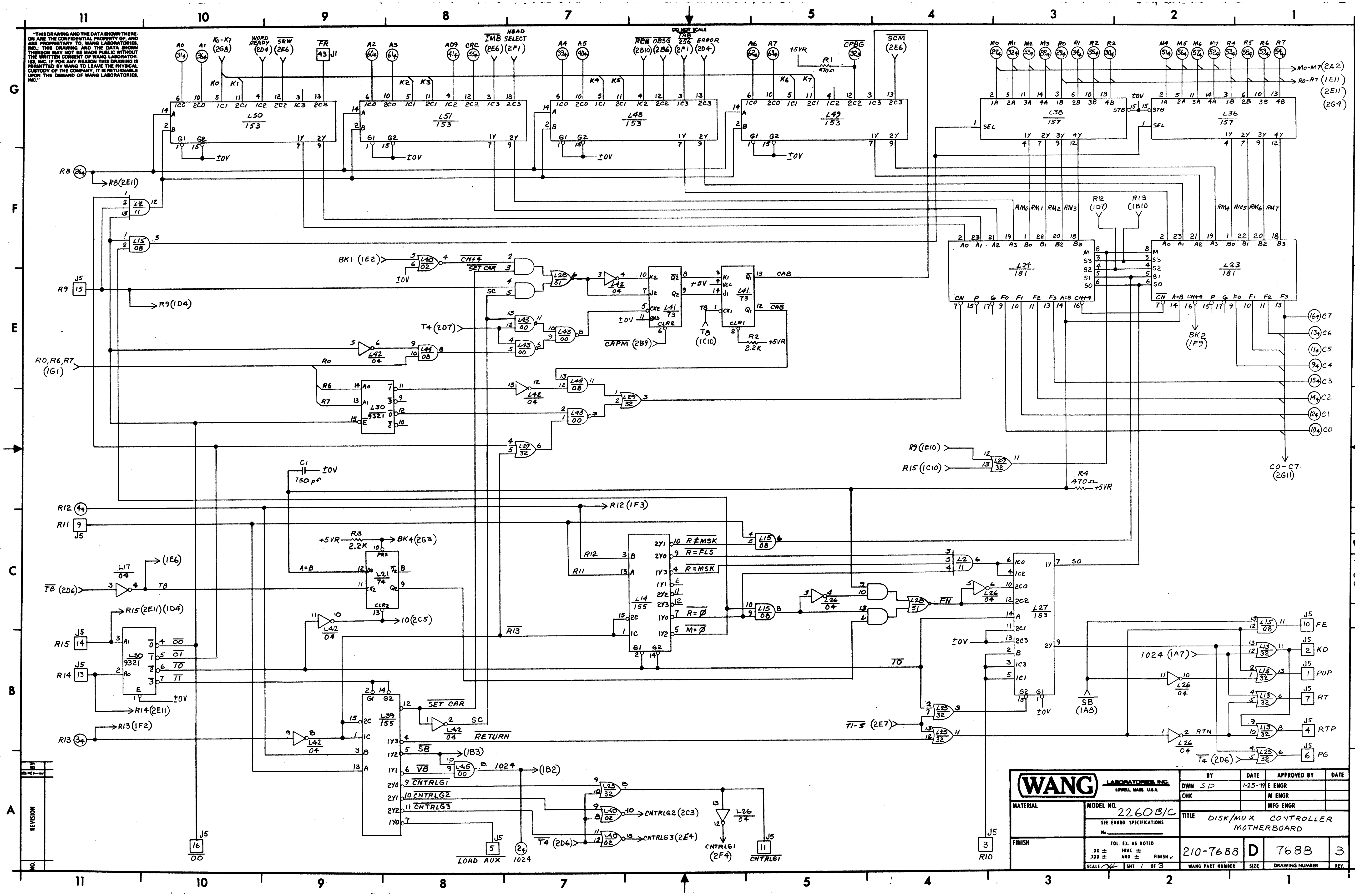
COMP.	W.L. PART No	TYPE
R1	336-1010	10K POT
R2	333-0161	22.6K 1/8W 1%
R3	333-0074	422K 1/8W 1%
R4	333-0064	56.2K 1/8W 1%
R5	333-0109	46.4K 1/8W 1%
R6	333-0069	6.19K 1/8W 1%
R7	330-2068-48	680Ω 1/4W 10%
R8, 10	330-3047-48	4.7K 1/4W 10%
R9	330-4010-48	10K 1/4W 10%
R11	330-3019-48	1.8K 1/4W 5%
R12	334-0051	40MEG 1.125W 1%
R13-16	330-3022-48	2.2K 1/4W 10%
R17	331-2027	270Ω 1/2W 10%
R18	337-2015	150Ω 2W 10%
R19	331-0033	3.3Ω 1/2W 10%
R22	332-4082	82K 1W 10%
R23	334-0039	15MEG 1W 10%
R24	336-0041	15MEG POT (H.V.)
R21	330-1047-48	47Ω, 1/4W, 10%
C1	300-1906	.001μF 500V CER
C2	300-5004	220pF 500V MICA
C3,7,13	300-1901	.1μF 12V CER
C4	300-2047	.0047μF 100V MYLAR
C5	300-4024	33μF 10V (T)
C6,10	300-3062	1000μF 25V (E)
C8	300-2310	.1μF 400V MYLAR
C9	300-2410	.1μF 600V MYLAR
C11	300-3079	2.6KμF 30V (E)
C12	300-1940	.001μF 6KV (C)
D1	380-1001-48	D035 SIL
D2,3	380-2221	IN5274 ZEN
D4-8	380-3010	SIF4
D9	380-4008	SIAGF
Q1	375-1012	MPS6512
Q2	375-1057	BU124
Q3	375-1056	MPSU04
T1	410-1014	TRANS.
T2	410-1006	TRANS
TRIPLER	410-2015	(HV)

NO.	REVISION	BY	DATE
0	DWR #E831 APP'D: [illegible]	DS	9-16-80
1/10	REVISED PER ECN #14358 APP'D: [illegible]	ZR	5-8-80
2/11	REVISED PER ECN #15038 APP'D: [illegible]	ZR	5-8-80
3/1	REVISED PER ECN #15077 APP'D: [illegible]	ZK	5-A-80
4/2	REVISED PER ECN #15833 APP'D: [illegible]	ZK	9-25-80
5/3	REVISED PER ECN #6030 APP'D: [illegible]	ZK	9-25-80
6/4	REVISED PER ECO #7315 APP'D: [illegible]	T.K.	1-22-81
7/4	REVISED PER ECO #18205 APP'D: [illegible]	ZR	5-12-81
8/5	REVISED PER ECO #[illegible] APP'D: [illegible]	FSS	4-1981

E-REV 5

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.	BY	DATE	APPROVED BY	DATE
	DWN DS	4/14/80	E ENGR R. VEINOT	7/24/80
	CHK [illegible]	7/24/80	M ENGR	
			MFG ENGR	
MATERIAL	MODEL NO. IP41	TITLE CRT HIGH VOLTAGE SUPPLY		
	SEE ENGRG. SPECIFICATIONS No.			
FINISH	TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH √	210-7669	D	7669 B
	SCALE NT SHT 2 OF 2	WANG PART NUMBER	SIZE	DRAWING NUMBER REV.

7669 D



WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.		BY	DATE	APPROVED BY	DATE
		DWN SD	1-25-79	E ENGR	
		CHK		M ENGR	
				MFG ENGR	
MATERIAL	MODEL NO. 2260B/C SEE ENGRG. SPECIFICATIONS No.	TITLE DISK/MUX CONTROLLER MOTHERBOARD			
FINISH	TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH ✓	210-7688	D	7688	3
	SCALE — SHT 1 OF 3	WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.

DO NOT SCALE

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.	BY	DATE	APPROVED BY	DATE
	DWN SD	1-25-79	E ENGR	
	CHK		M ENGR	
MATERIAL	MODEL NO. 2260810		MFG ENGR	
	SEE ENGRG. SPECIFICATIONS No.	TITLE	DISK/MUX CONTROLLER MOTHER BOARD	
FINISH	TOL. EX. AS NOTED .XX ± FRAC. ± .XXX ± ANG. ± FINISH √	210-7688	D 7688	3
	SCALE SHT 2 OF 3	WANG PART NUMBER	SIZE DRAWING NUMBER	REV.

D 7688

DO NOT SCALE

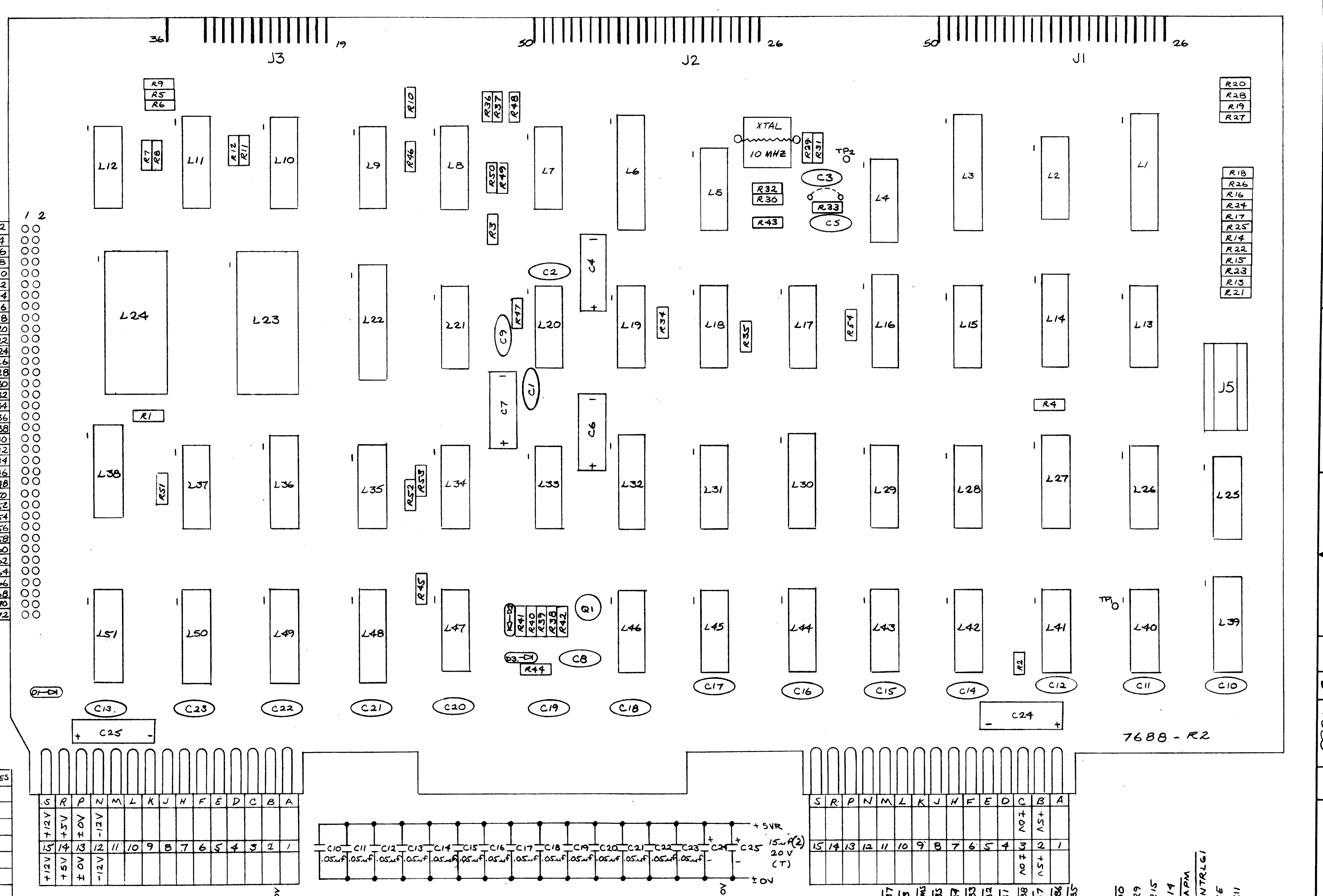
COMPONENT	WLI #	TYPE
C1	300-1150	150 pf 500V
C2	300-1913	.002 µf 500V
C3	300-1010	10 pf 500V
C4, 24, 25	300-4022	15 µf 20V (T)
C5, 8	300-1906	.001 µf 500V
C6, 7	300-4045	220 µf 15V (T)
C9	300-1903	.01 µf 25V
C10-23	300-1900	.05 µf 12V
XTAL1	321-0008	10 MHZ
R1, 4-12, 35-38, 43, 46, 48	330-2047	470Ω 1/4W 10%
R2, 3, 42, 45, 49-55	330-3022	2.2K 1/4W 10%
R13-20	330-2033	330Ω 1/4W 10%
R21-30	330-2022	220Ω 1/4W 10%
R31	330-2018	180Ω 1/4W 10%
R32	330-3018	1.8K 1/4W 10%
R33	330-3047	4.7K 1/4W 10%
R34	330-4027	27K 1/4W 10%
R39	330-2010	100Ω 1/4W 10%
R40	330-3033	3.3K 1/4W 10%
R41	330-3015	1.5K 1/4W 10%
R44	330-5010	100K 1/4W 10%
R47	330-1047	47Ω 1/4W 10%
J1, 2	350-2097	50 PIN CONN.
J3	350-2096	36 PIN CONN.
J4	350-1029 M	72 PIN CONN.
J5	376-9024	16 PIN SKT.
Q1, 2	375-1005	2N2222
D1, 3	380-1001	SIL.
D2	380-2048	1N5230C 4.7V

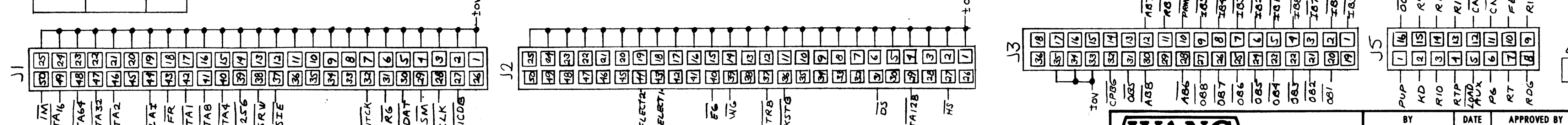
LOCATION	W.L. PART NO.	TYPE
L1, 3, 6, 22	376-0338	74LS244
L2, 33	376-0194	7411
L4, 15, 44	376-0081	7408
L5, 17, 26, 31, 42	376-0010	7404
L7, 21, 47	376-0006	7474
L8, 13, 19, 25, 29	376-0093	7432
L9, 12	376-0028	7403
L10, 11	376-0138	74298
L14, 39	376-0049	74155
L16	376-0007	7476
L18	376-0102	74164
L20, 43, 45	376-0002	7400
L23, 24	376-0099	74181
L27, 32, 48-51	376-0048	74153
L28	376-0012	7451
L30	376-0096	9321
L34, 35, 37, 41	376-0005	7473
L36, 38	376-0082	74157
L40	376-0016	7402
L46	376-0240	LM339

CONN: 4

8	1	1024	2
R13	3	R12	4
$\overline{WTG}$	5		6
	7	$\overline{ESG}$	8
C4	9	C0	10
C5	11	C1	12
C6	13	C2	14
C3	15	C7	16
$\overline{RCLK}$	17	$\overline{RDDA}$	18
	19		20
	21		22
	23	$\overline{WCD}$	24
	25	R8	26
M0	27	M3	28
R0	29	R3	30
A0	31	M1	32
M2	33	R1	34
R2	35	A1	36
± 0V	37	± 0V	38
A4	39	A5	40
AD9	41		42
	43	RA	44
$\overline{T01}$	45	$\overline{T4}$	46
+5VR	47	+5VR	48
+5VR	49	+5VR	50
M4	51	M7	52
R4	53	R7	54
CRC	55	M5	56
M6	57	R5	58
R6	59	A2	60
A3	61	A6	62
A7	63	$\overline{T4-6}$	64
AST	65		66
	67	$\overline{T8}$	68
10 MHZ	69		70
+ 12V	71	-12V	72

LOCATION	TYPE	SPARES
L4	7408	1
L17	7404	1
L29	7432	1
L33	7411	2
L45	7400	1
L46	LM339	2





MNEMONICS	COORDINATE
A0-A7	1G7
$\overline{AB6}$, $\overline{AB8}$	2C11
$\overline{AB7}$	2A8
AD9	1G8
AST	2G8
C0-C7	1D1
$\overline{CAPM}$	2A9
$\overline{CNTRLGI}$	1A5
$\overline{CPBG}$	1G5
CRC	1G8
$\overline{DS}$	2E1
$\overline{DKSTB}$	2G1
$\overline{EG}$	2E1
$\overline{ESG}$	2G2
FE	1B1
$\overline{FR}$	1G9
$\overline{HS}$	2E1
$\overline{IB1}$-$\overline{IB8}$	2B1
$\overline{IBS}$	2F1
$\overline{IM}$	2G6
KD	1B1
$\overline{LAI}$	2G5
$\overline{LOAD-AUX}$	1A8
M0-M7	1G2
$\overline{OD}$	1A10
$\overline{OB1}$-$\overline{OB8}$	2G9
$\overline{OBS}$	2A8
PG	1A1
$\overline{PRMS}$	2B11
PUP	1B1
R0-R7	1G2
R8	1F11
R9	1E11
R10	1A4
R11, 12	1C11
R13, 14, 15	1B11
RA	2D11
$\overline{RB}$	2F1
$\overline{RCLK}$	2A5
$\overline{RCLK1}$	2G5
$\overline{RDAT}$	2G6
$\overline{RDDA}$	2A5
RDG	2G3
$\overline{RG}$	2D1
$\overline{RSRW}$	2G6
$\overline{RSTRB}$	2G1
RT	1B1
RTP	1B1
$\overline{SELECT1}$	2E1
$\overline{SELECT2}$	2E1
$\overline{SIE}$	2G5
$\overline{SM}$	2G6
$\overline{TOI}$	2A6
$\overline{T4}$	2A6
$\overline{T4-6}$	2A6
$\overline{T8}$	2A6
$\overline{TA1-TA128}$	2D1
$\overline{TA-256}$	2E1
$\overline{WCD}$	2G2
$\overline{WCDB}$	2G1
$\overline{WG}$	2A9
$\overline{WTCK}$	2G5
$\overline{WTG}$	2G2
8	2A5
1024	1A7
10MHZ	2D11

NO.	REVISION	DATE	BY
0	ORIGANATED PER DWR # E539 APP'D: 3-13-79	1-26-79	SD
1	REVISED PER ECN# 12694 APP'D: J.D. 11-26-79	11-26-79	SDB
2 / 1	REVISED PER ECN# 13918 APP'D: J.D. 1-12-80	1-11-80	L.D.
3 / 2	REVISED PER ECO# 16972 APP'D: J.D. 12-6-80	12-5-80	L.D.C.

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN SD	1-26-79	E ENGR DOOLEY	3-13-79
CHK G.D.	3-13-79	M ENGR	
		MFG ENGR	

MATERIAL

MODEL NO. 2260 B/C

SEE ENGRG. SPECIFICATIONS No.

TITLE DISK/MUX CONTROLER MOTHERBOARD

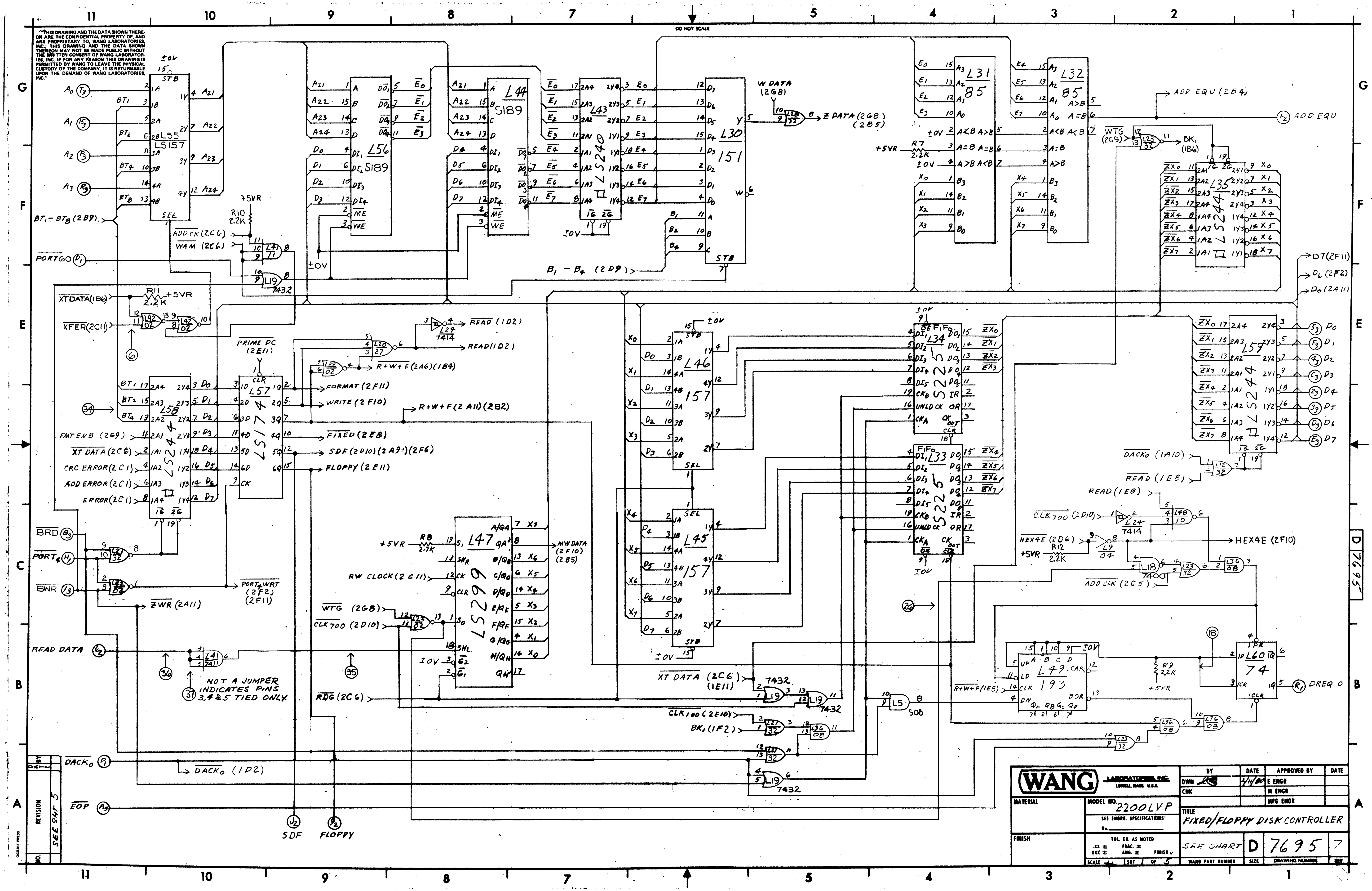
FINISH

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH ✓

SCALE 1/1 SHT 3 OF 3

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7688	D	7688	3

D 7688



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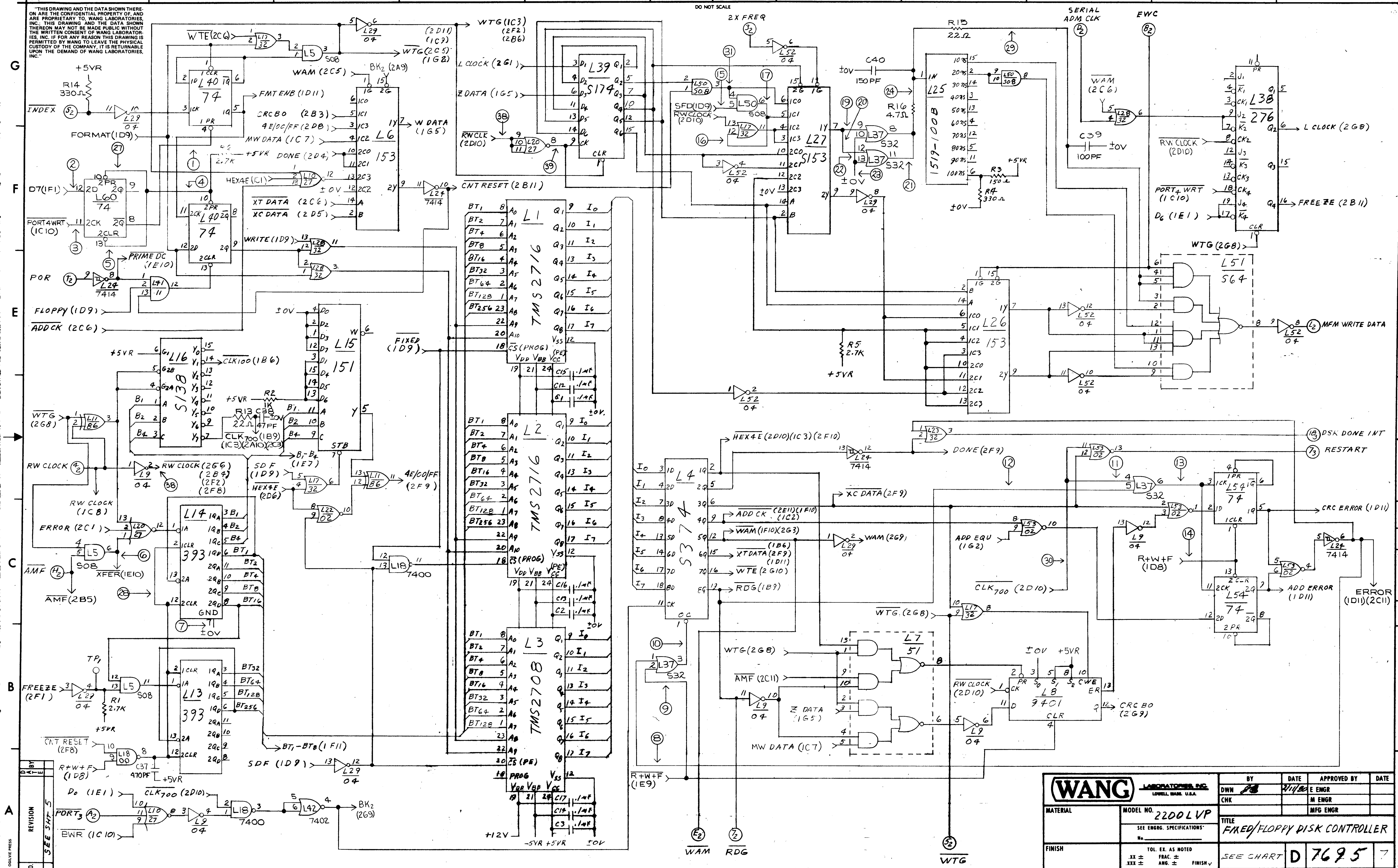
DO NOT SCALE
L55 LS157
L56 S189
L44 S189
L43 LS240
L30 151
L31 85
L32 85
L35 LS244
L58 LS244
L57 LS174
L46 157
L45 157
L34 S225
L33 S225
L59 LS244
L47 LS299
L49 193
L60 74
W DATA (2G8)
Z DATA (2G8) (2B5)
ADD EQU (2B4)
ADD EQU
BT1 - BT8 (2B9)
PORTGO
XTDATA (1B6)
XFER (2C11)
PRIME DC (2E11)
READ (1D2)
R+W+F (2A6) (1B4)
FORMAT (2F11)
WRITE (2F10)
R+W+F (2A11) (2B2)
FIXED (2E8)
SDF (2D10) (2A9) (2F6)
FLOPPY (2E11)
FMT ENB (2G9)
XT DATA (2C6)
CRC ERROR (2C1)
ADD ERROR (2C1)
ERROR (2C1)
BRD
PORT4
BWR
PORT4 WRT (2F2) (2F11)
ZWR (2A11)
READ DATA
NOT A JUMPER INDICATES PINS 3,4 & 5 TIED ONLY
RW CLOCK (2C11)
WTG (2G8)
CLK700 (2D10)
MW DATA (2F10) (2B5)
B1 - B4 (2D9)
D7 (2F11)
D6 (2F2)
D0 (2A11)
DACK0 (1A10)
READ (1E8)
CLK700 (2D10)
HEX4E (2D6)
HEX4E (2F10)
ADD CLK (2C5)
R+W+F (1E8)
DREQ 0
XT DATA (2C6) (1E11)
RDG (2C6)
CLK700 (2E10)
BK1 (1F2)
BK1 (1B6)
DACK0
DACK0 (1D2)
EOP
SDF
FLOPPY
REVISION
SEE SHT 5
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MATERIAL
FINISH
MODEL NO. 2200LVP
SEE ENGRG. SPECIFICATIONS
TITLE FIXED/FLOPPY DISK CONTROLLER
SEE CHART
D 7695 7
WANG PART NUMBER
SIZE
DRAWING NUMBER
REV
SCALE
SHT 1 OF 5
E ENGR
M ENGR
MFG ENGR
APPROVED BY
DATE

DO NOT SCALE



INDEX
FORMAT (1D9)
D7 (1F1)
PORT4WRT (1C10)
POR
FLOPPY (1D9)
ADDCK (2C6)
WTE (2C6)
WTG (1C3)
WTG (2C5)
WAM (2C5)
FMT ENB (1D11)
CRCBO (2B3)
4E/0C/FF (2D8)
MW DATA (1C7)
DONE (2D4)
HEX4E (1C1)
XT DATA (2C6)
XC DATA (2D5)
W DATA (1G5)
CNT RESET (2B11)
WRITE (1D9)
PRIME DC (1E10)
L CLOCK (2G1)
Z DATA (1G5)
RWCLK (2D10)
2X FREQ
SFD (1D9)
RWCLOCK (2D10)
SERIAL ADM CLK
EWC
L CLOCK (2G8)
FREEZE (2B11)
MFM WRITE DATA
TMS 2716
TMS 2708
CLK100 (1B6)
RW CLOCK
ERROR (2C1)
XFER (1E10)
AMF (2B5)
FIXED (1D9)
4E/C0/FF (2F9)
HEX4E (2D10) (1C3) (2F10)
DONE (2F9)
DSK DONE INT
RESTART
XC DATA (2F9)
ADD CK (2E11) (1F10) (1C2)
WAM (1F10) (2G3)
WAM (2G9)
XT DATA (2F9)
WTE (2G10)
RDG (1B9)
CRC ERROR (1D11)
ADD EQU (1G2)
R+W+F (1D8)
ADD ERROR (1D11)
ERROR (1D11) (2C11)
CLK700 (2D10)
WTG (2G8)
AMF (2C11)
Z DATA (1G5)
MW DATA (1C7)
CRC BO (2G9)
FREEZE (2F1)
SDF (1D9)
BT1 - BT8 (1F11)
CNT RESET (2F8)
R+W+F (1D8)
D0 (1E1)
PORT3
EWR (1C10)
BK2 (2G9)
+12V
-5VR +5VR
±0V
WAM
RDG
WTG

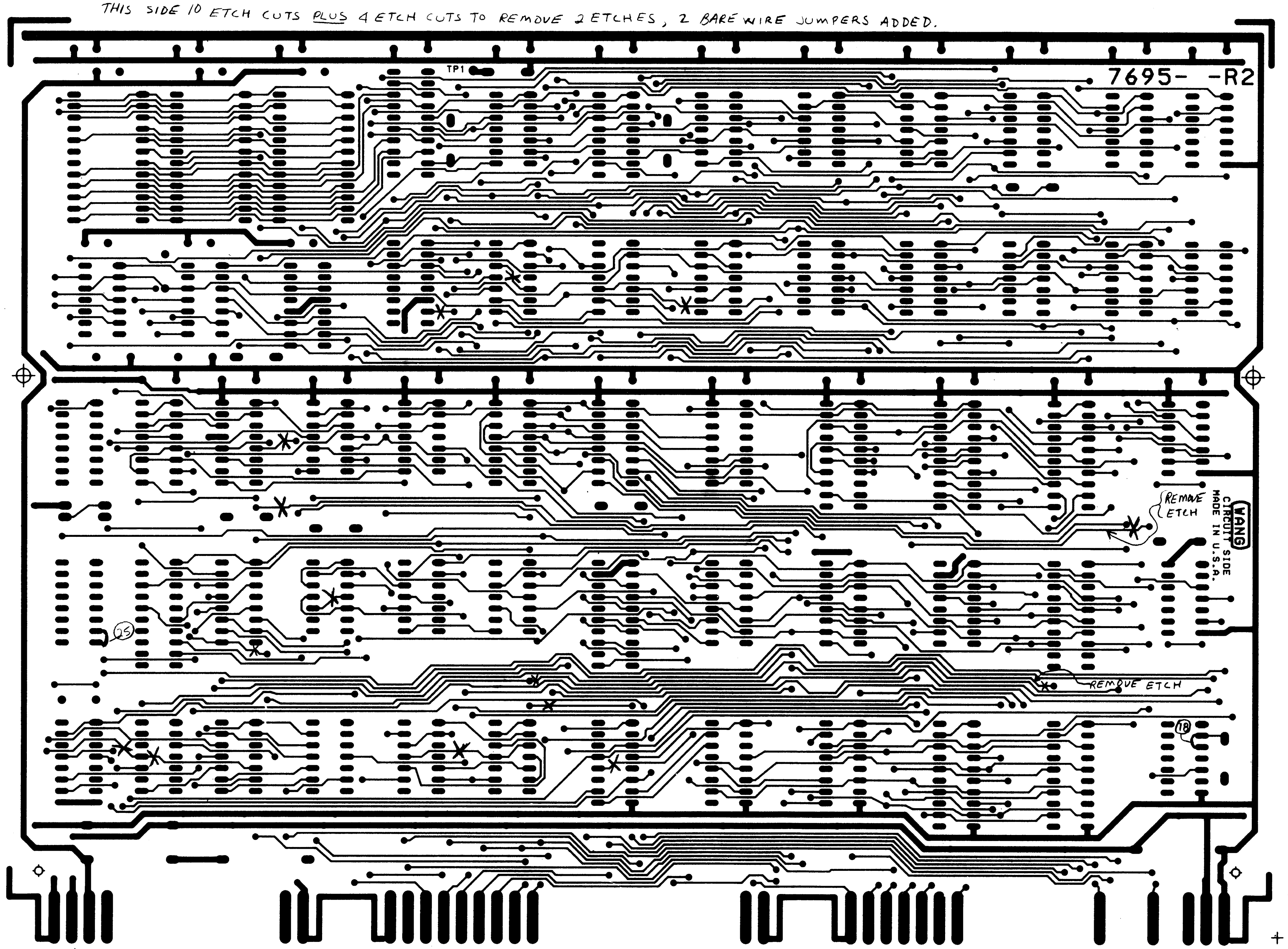
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.		BY	DATE	APPROVED BY
MATERIAL	MODEL NO. 2200 LVP	DWN	2/11/80	E ENGR
	SEE ENGRG. SPECIFICATIONS	CHK		M ENGR
FINISH	TOL. EX. AS NOTED			MFG ENGR
TITLE	FIXED/FLOPPY DISK CONTROLLER			
SEE CHART	D	7695	7	
SCALE	SHT 2 OF 5	WANG PART NUMBER	SIZE / DRAWING NUMBER	REV.

REVISION — SEE SHT 5

D 7695

SH 2/2 7695 CIRCUIT SIDE - ADDED JUMPERS, ETCH CUTS, AND ETCH REMOVALS   MBT 11-12-80

THIS SIDE 10 ETCH CUTS PLUS 4 ETCH CUTS TO REMOVE 2 ETCHES, 2 BARE WIRE JUMPERS ADDED.



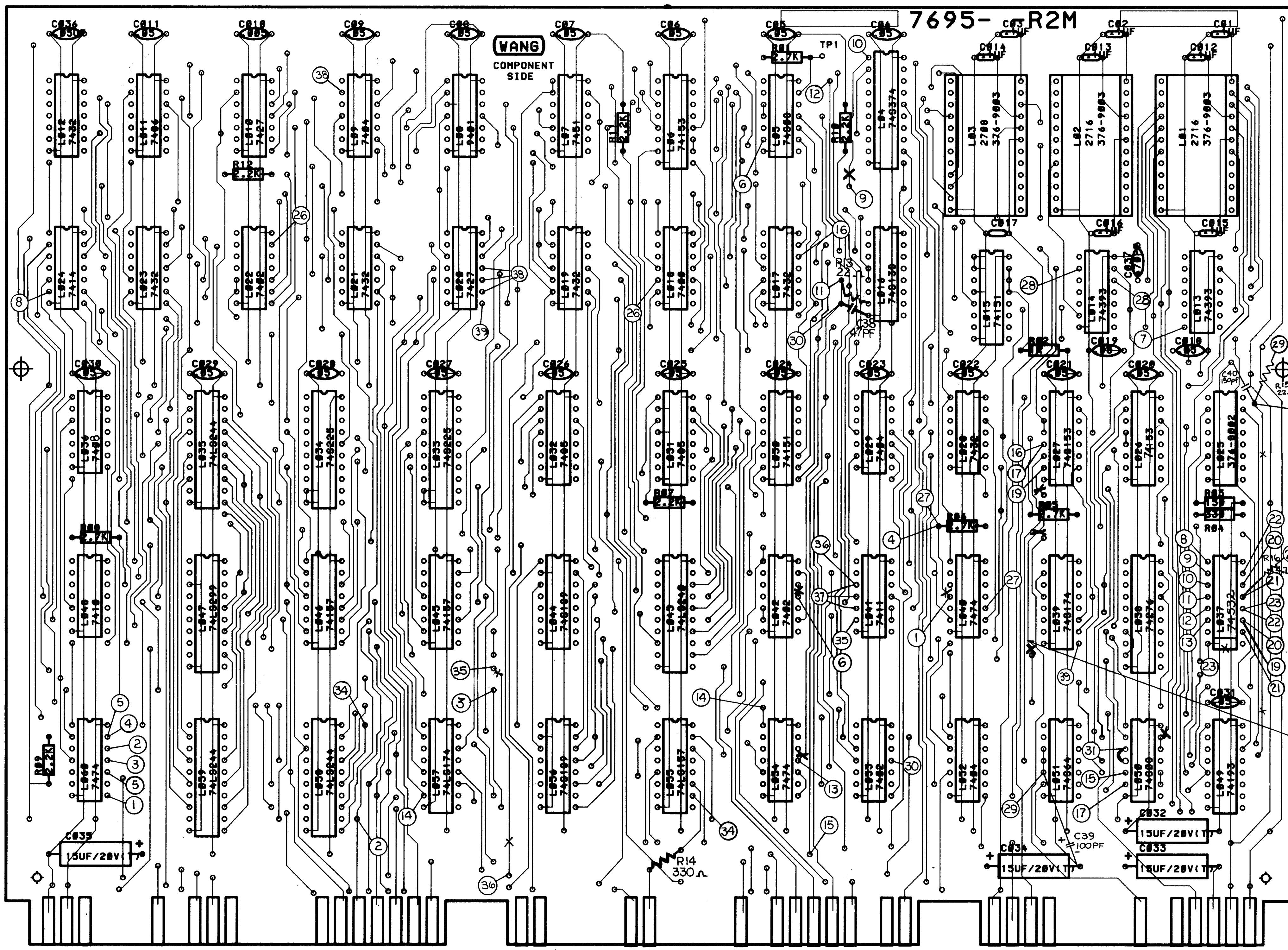
WANG LABORATORIES, INC. LOWELL MASS U.S.A.	BY	DATE	APPROVED BY	DATE
	DWN L. D. Crottley	11-25-80	E ENGR	
	CHK		M ENGR	
			MFG ENGR	
MATERIAL	MODEL NO	TITLE FIXED/FLOPPY DISK CONTROLLER		
	SEE ENGRG SPECIFICATIONS No			
FINISH	TOL EX AS NOTED XX ± FRAC ± XXX ± ANG ± FINISH	SEE CHART	D	7695
	SCALE / SHT 3 OF 5	WANG PART NUMBER	SIZE	DRAWING NUMBER / REV –

REVISION: SEE SH. 5

DO NOT SCALE

HOLE LEGEND & TOLERANCES		
HOLE DIA		TOLERANCE
.0135 .125		+ .003 .003
.126 .250		+ .004 .004
.251 .500		+ .005 .005

SYM	DESCRIPTION	QTY
A		



REMOVE ETCH BETWEEN TWO POINTS MARKED "X"

THIS SIDE 6 ETCH CUTS PLUS 6 ETCH CUTS TO REMOVE 3 ETCHES.

ECN NO. 18 300D PENDING

NOTE: "#" MEANS ONE END OF AN INSULATED WIRE WHICH IS TO BE CONNECTED TO ANOTHER POINT ON THE BOARD WITH THE SAME "#" SYMBOL.

D 7695

NO.	REVISION	DATE	BY
	SEE SH. 5		

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN L.D. Chattley	11-25-80	E ENGR	
CHK		M ENGR	
		MFG ENGR	

MATERIAL

MODEL NO. 2200 VP

SEE ENGRG. SPECIFICATIONS No. 10-203

TITLE FIXED/FLOPPY DISK CONTROLLER ASSEMBLY DRAWING

FINISH

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH ✓

SCALE | SHT 4 OF 5

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7695	D	7695	7

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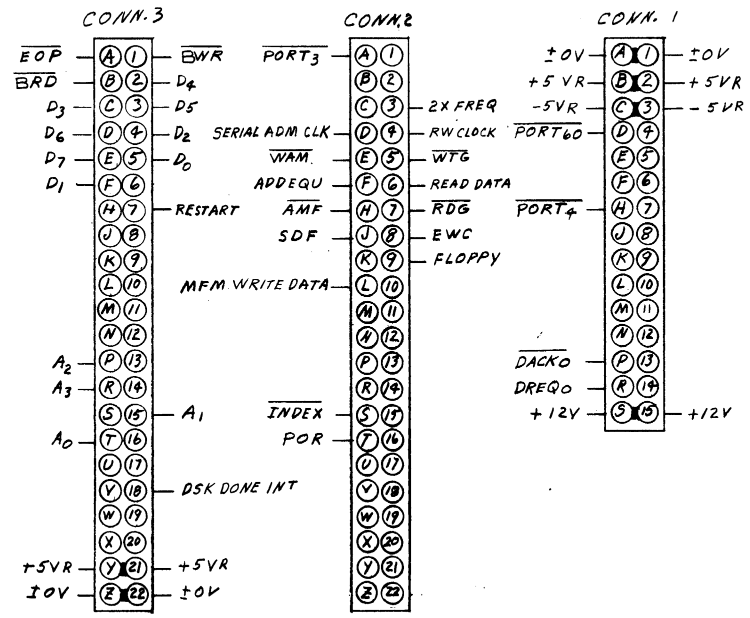
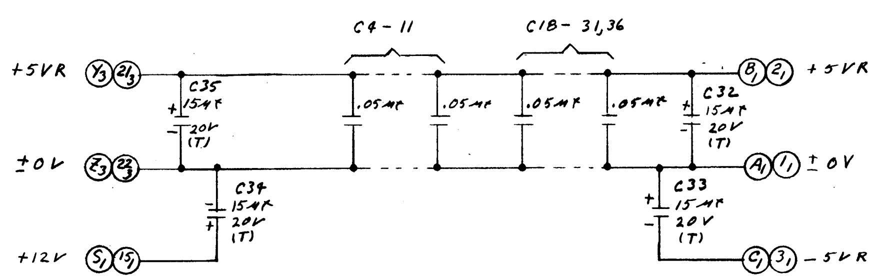
DO NOT SCALE





I.C. LOCATION	W. L. PART No	TYPE
L1, 2	SEE CHART	TMS2716
L3	SEE CHART	TMS2708
L4	376-0286	74LS374
L5, 50	376-0200	74S08
L6, 26.	376-0048	74153
L7	376-0012	7451
L8	376-0440	9401
L9, 24, 29, 52	376-0010	7414
L10, 20	376-0125	7427
L11	376-0036	7486
L12, 17, 19, 21, 23, 28	376-0093	7432
L13, 14	376-0330	74393
L15, 30	376-0047	74151
L16	376-0298	74S138
L18	376-0002	7400
L36	376-0081	7408
L22, 42, 53	376-0016	7402
L25	376-8002	1519-100B
L31, 32	376-0087.	7485
L33, 34	376-0323	74S225
L35, 58, 59	376-0288	74LS244
L37	376-0205	74S32
L38	376-0318	74276
L39	376-0247	74S174
L40, 54, 60	376-0006	7474
L41	376-0194	7411
L44, 56	376-0349	74S189
L45, 46, 55	376-0082	74157
L47	376-0303	74LS299
L48	376-0003	7410
L49	376-0053	74193
L43	376-0297	74LS240
L51	376-0201	74S64
L57	376-0159	74LS174
L27	376-0215	74S153
L1, 2, 3,	376-9003	24 PIN SOCKET

		210 = 209 +377 OR 378		
210	209	L1	L2	L3
7695-A	7695	378-4224	378-4225	378-2560-R1

COMPONENT	W.L. PART NO	TYPE
R1, 5, 6, 8	330-3027	2.7K 1/4W 10%
R2	330-3010	1K 1/4W 10%
R3	330-2015	150Ω 1/4W 10%
R4, 14	330-2033	330Ω 1/4W 10%
R7, 9-12	330-3022	2.2K 1/4W 10%
R13, 15	330-1022	22Ω 1/4W 10%
C1, 2, 3, 12-17	300-1930	.1μF 50V (CER)
C4-11, 18-31, 36	300-1900	.05μF 12V (CER)
C32-35	300-4022	15μF 20V (T)
C37	300-1470	470pf 500V (CER)
C38	300-1047	47pF 500V (CER)
C39	300-1100	100PF 500V
C40	300-1150	150PF 500V
R16	330-0047	4.7Ω 1/4W 10%

I.C. TYPE	LOC	SPARES
7402	L21	1
	L22	1
	L42	2
7410	L48	2
7411	L41	1
7427	L10	1
7432	L12	3
	L21	1
7486	L11	2

MNEMONIC	COORDINATE
$A_0 - A_3$	1 G 11
ADD EQU	1 G 1
AMF	2 C 11
BRD	1 C 11
BWR	1 C 11
$D_0 - D_7$	1 E 1
DACKO	1 A 11
DSK DONE INT	2 D 1
DREQ0	1 B 1
EOP	1 A 11
EWC	2 G 3
FLOPPY	1 A 9
INDEX	2 G 11
MFM WRITE DATA	2 E 1
POR	2 E 11
$PORT_3$	2 A 11
$PORT_4$	1 C 11
$PORT_{60}$	1 F 11
RDG	2 A 6
READ DATA	1 B 11
RESTART	2 D 1
RW CLOCK	2 D 11
SDF	1 A 9
SERIAL ADM CLOCK	2 G 3
WAM	2 A 5
WTG	2 A 4
2X FREQ	2 G 6

E-REV 4

NO.	REVISION	DATE	BY
0/0	ORG PER DWR # 838 APP'D	2-11-80	
1/0	REVISED PER ECN # 14679 APP'D	3-27-80	
2/1	REVISED PER ECN # 15405 APP'D:	6-19-80	LDB
3/1	REVISED PER ECO# 16885 APP'D:	11-25-80	L.D.C.
4/1	REVISED: PER ECO # 16262, 16535 APP'D 12-16-80	12-16-80	T.K.
5/2	REVISED PER ECO# 17846 APP'D: 11 FEB 81	2-4-81	SDB
6/3	REVISED PER ECO# 18163 APPD: 11 FEB 81	2-11-81	DAG
7/4	REVISED PER ECO# 18300 APP'D: 3-24-81	3-24-81	

OGILVIE PRESS

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN		2/4/80	E ENGR	
CHK			M ENGR	
			MFG ENGR	

MATERIAL

MODEL NO. 2200LVP

SEE ENGRG. SPECIFICATIONS No.

TITLE FIXED/FLOPPY DISK CONTROLLER

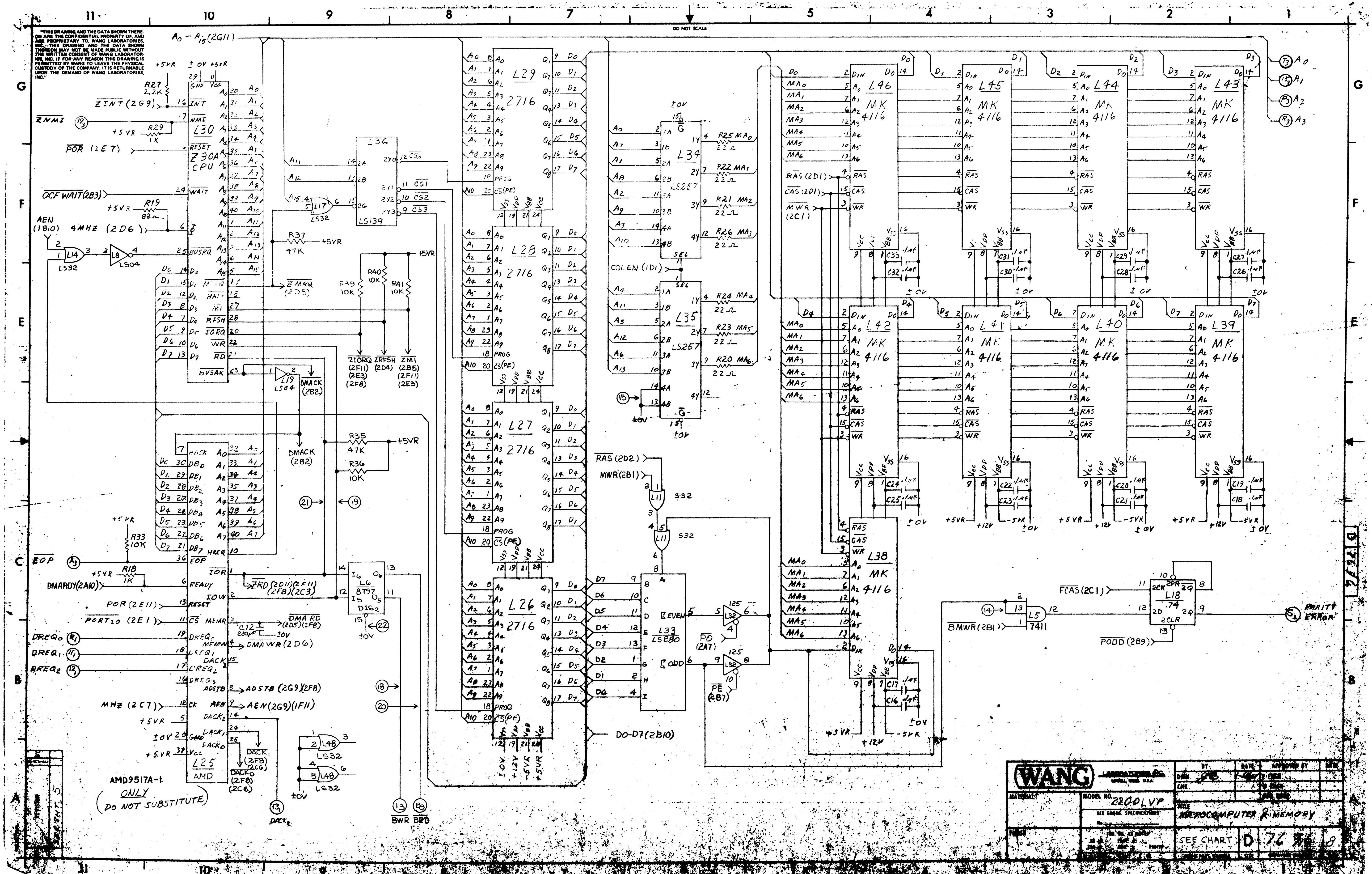
FINISH

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH √

SCALE 4/1 SHT 5 OF 5

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	D	7695	7

D 7695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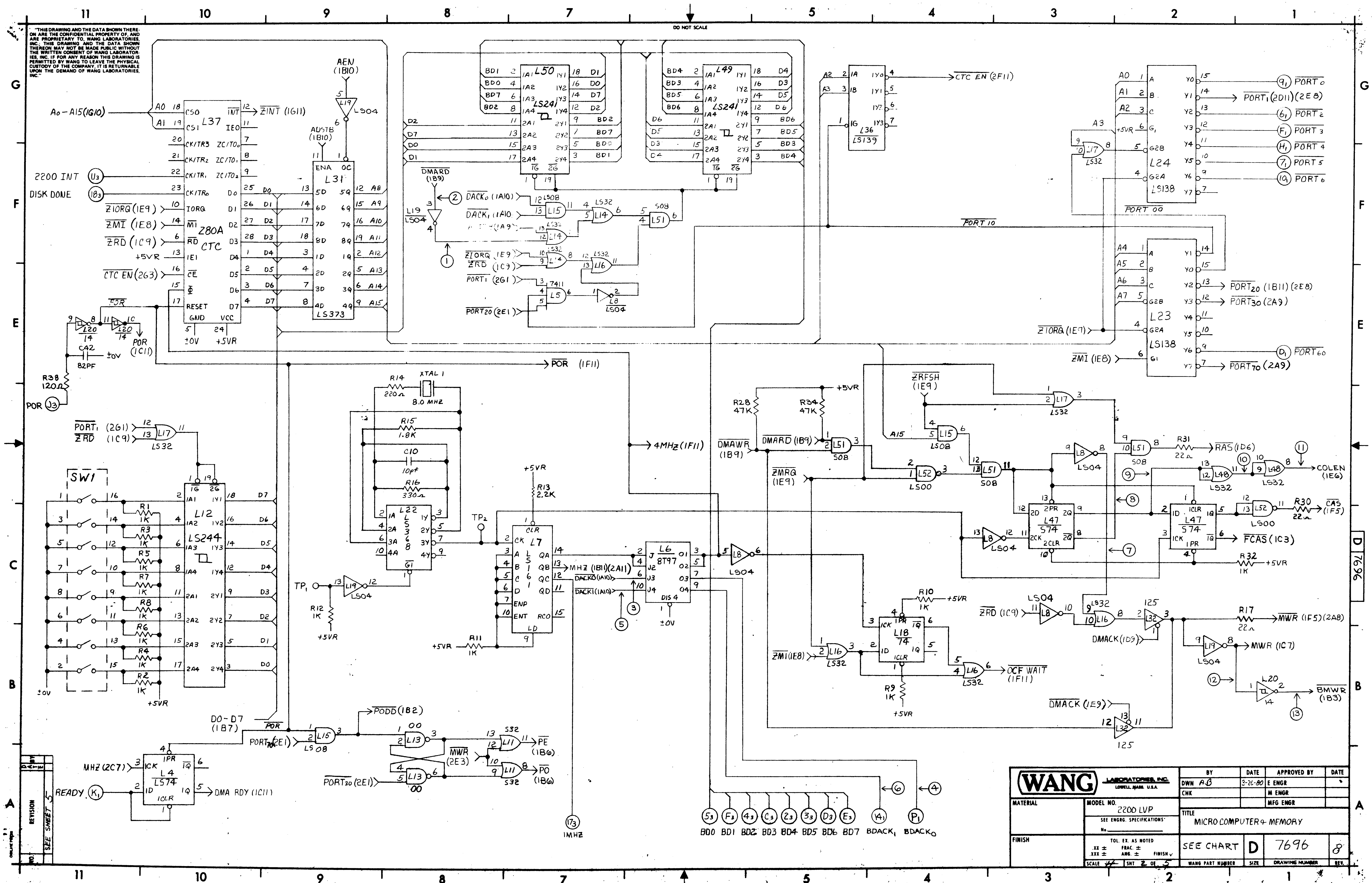
DO NOT SCALE
L30
Z80A CPU
L36
LS139
L17
LS32
L14
L8
LS04
L29
2716
L28
2716
L27
2716
L26
2716
L34
LS257
L35
LS257
L46
MK 4116
L45
MK 4116
L44
MK 4116
L43
MK 4116
L42
MK 4116
L41
MK 4116
L40
MK 4116
L39
MK 4116
L38
MK 4116
L19
L6
8T97
L25
AMD
L33
LS280
L11
L32
L48
LS32
L5
7411
L18
74
AMD9517A-1
ONLY
(DO NOT SUBSTITUTE)
D0-D7 (2B10)
PARITY ERROR
WANG
MODEL NO. 2200LVP
MICROCOMPUTER & MEMORY
SEE CHART
D 76


"THIS DRAWING AND THE DATA SHOWN THEREON ARE THE CONFIDENTIAL PROPERTY OF, AND ARE PROPRIETARY TO, WANG LABORATORIES, INC.; THIS DRAWING AND THE DATA SHOWN THEREON MAY NOT BE MADE PUBLIC WITHOUT THE WRITTEN CONSENT OF WANG LABORATORIES. IF FOR ANY REASON THIS DRAWING IS PERMITTED BY WANG TO LEAVE THE PHYSICAL CUSTODY OF THE COMPANY, IT IS RETURNABLE UPON THE DEMAND OF WANG LABORATORIES, INC."
DO NOT SCALE
Z80A CTC
L37
L31
LS373
L50
LS241
L49
LS241
L36
LS139
L24
LS138
L23
LS138
SW1
L12
LS244
L22
LS368
L7
LS161
L6
8T97
XTAL 1
8.0 MHZ
L47
S74
L18
74
L4
LS74
2200 INT
DISK DONE
POR
RAS (1D6)
COLEN (1E6)
CAS (1F5)
FCAS (1C3)
MWR (1F5)(2A8)
MWR (1C7)
BMWR (1B3)
OCF WAIT (1F11)
DMA RDY (1C11)
4MHz (1F11)
1MHZ
READY
BD0 BD1 BD2 BD3 BD4 BD5 BD6 BD7 BDACK1 BDACK0
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MODEL NO. 2200 LVP
TITLE MICRO COMPUTER & MEMORY
SEE CHART
D
7696
SHT 2 OF 5
DWN AB
3-21-80
E ENGR
M ENGR
MFG ENGR
REVISION
SEE SHEET 5

DO NOT SCALE

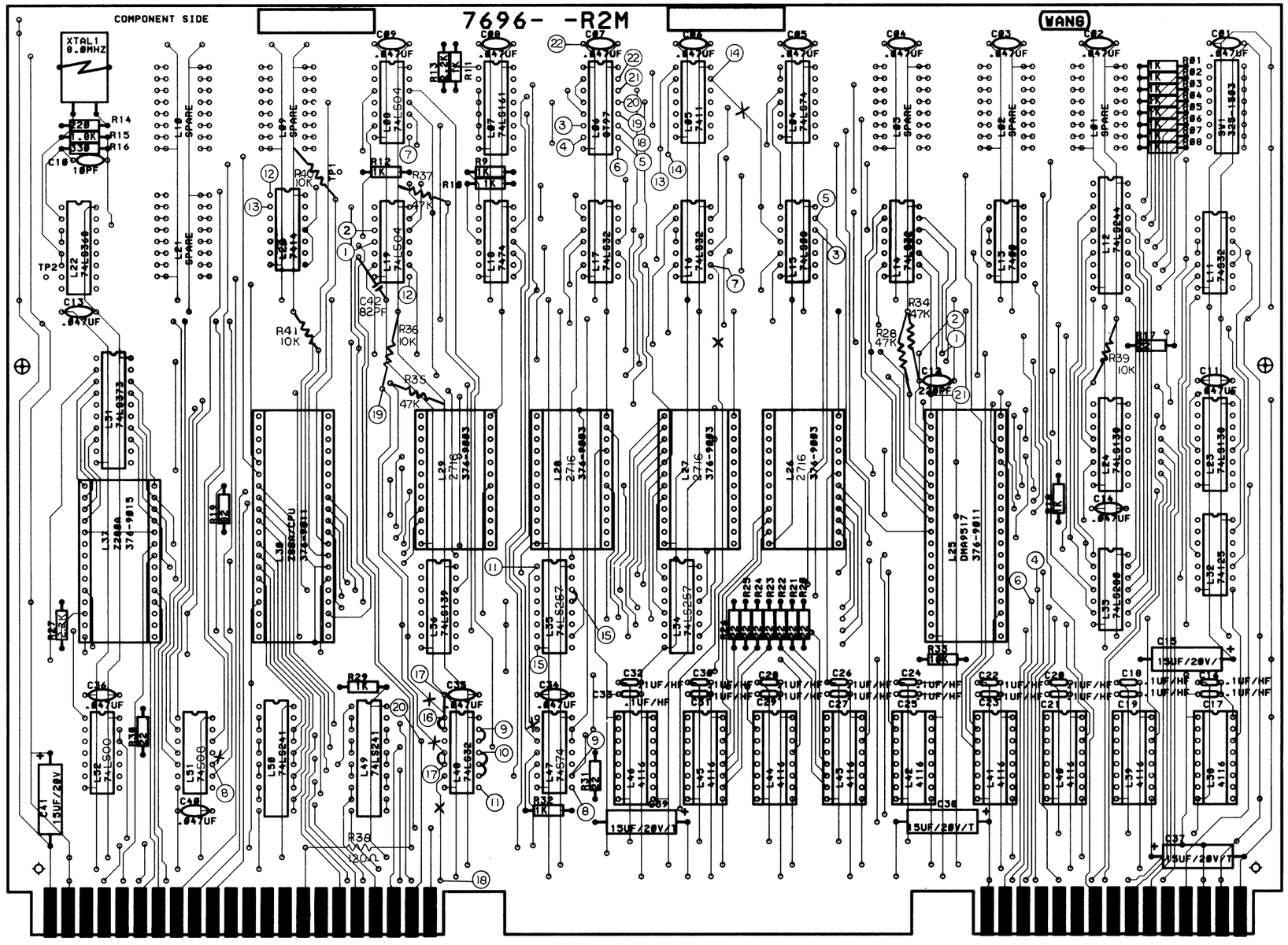
HOLE LEGEND & TOLERANCES			
HOLE DIA		TOLERANCE	
0135	125	+ 003	003
126	250	+ 004	004
251	500	+ 005	005

SYM	DESCRIPTION	QTY
A		

COMPONENT SIDE

7696- -R2M

WANG



THIS SIDE 7ETCH CUTS TOTAL

NOTES: "#" MEANS ONE END OF AN INSULATED WIRE WHICH IS TO BE CONNECTED TO ANOTHER POINT ON THE BOARD WITH THE SAME "#" SYMBOL.

NO.	REVISION	BY	DATE
	SEE SH 5 FOR REV		

OGILVIE PRESS

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MATERIAL	MODEL NO. 2200LVP
	SEE ENGRG. SPECIFICATIONS No.
FINISH	TOL EX. AS NOTED XX ± FRAC ± XXX ± ANG. ± FINISH √
	SCALE 2/1 SHT 3 OF 5

BY	DATE	APPROVED BY	DATE
DWN R.D.B.	11-24-80	E ENGR	
CHK		M ENGR	
		MFG ENGR	

TITLE MICROCOMPUTER & MEMORY ASSEMBLY DRAWING

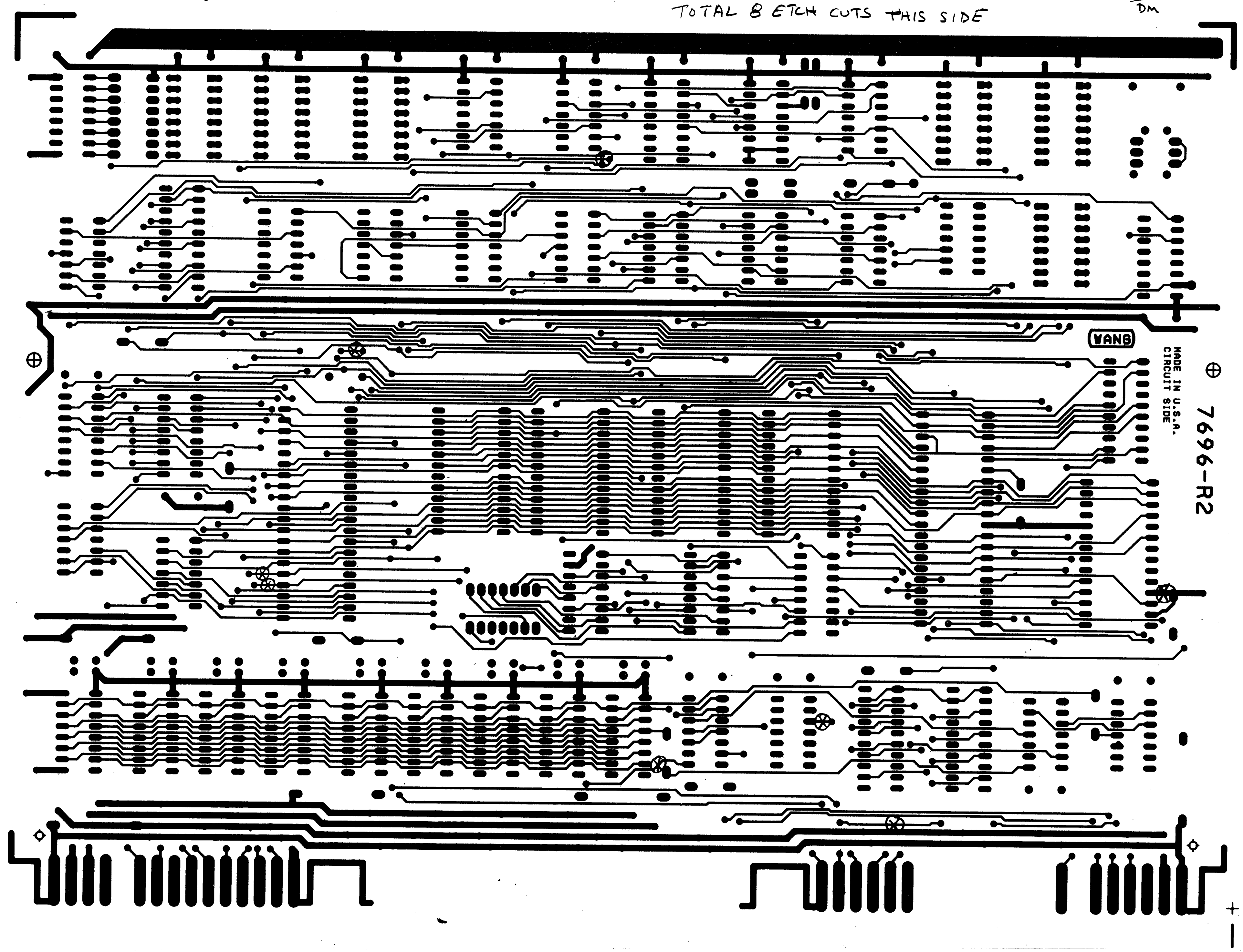
WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
SEE CHART	D	7696	5

D 7696

SH 2/2 7696 Circuit Side Etch Cuts

TOTAL 8 ETCH CUTS THIS SIDE

MBT 11-6-80
DM

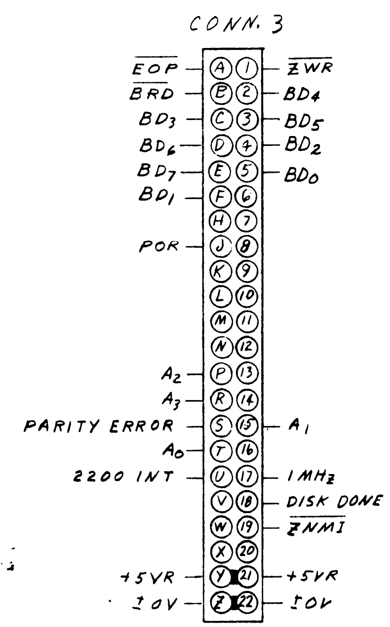


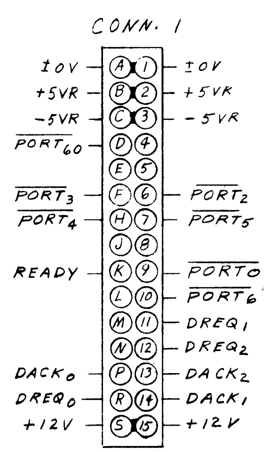
REVISION	DATE	BY
SEE SH. 5		

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.		BY	DATE	APPROVED BY	DATE
		DWN LDB	11-24-80	E ENGR	
		CHK		M ENGR	
				MFG ENGR	
MATERIAL	MODEL NO. 2200 LVP SEE ENGRG SPECIFICATIONS No.	TITLE MICROCOMPUTER & MEMORY			
FINISH	TOL EX AS NOTED XX ± FRAC ± XXX ± ANG. ± FINISH ✓	SEE CHART (WANG PART NUMBER)	D (SIZE)	7696 (DRAWING NUMBER)	8 (REV.)
	SCALE ~4 / SHT 4 OF 5				

D 7696

DO NOT SCALE



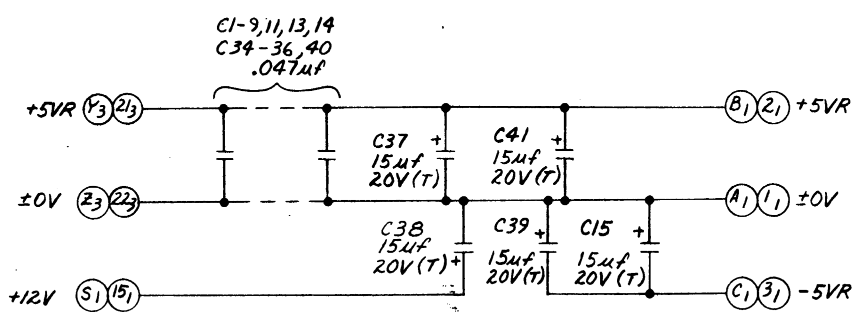


IC LOCATION	SPARES	TYPE
L4	1	LS74
L5	2	7411
L13	2	7400
L14	1	LS32
L20	3	7414
L15	1	7408
L16	1	7432
L19	1	LS04
L22	1	LS368
L52	2	S00
L48	2	LS32

LOCATION	W.L. PART No	TYPE
L1,2,3,9,10, 20,21		SPARE
L4	376-0155	74LS74
L5	376-0194	7411
L6	376-0189	8T97
L7	376-0233	74LS161
L8,19	376-0197	74LS04
L11,14,16,17,48	376-0211	74LS32
L12	376-0288	74LS244
L13	376-00[illegible]	74C[illegible]
L15	376-0051	74C[illegible]
L18,47	376-0006	7474
L22	376-0193	74LS368
L23,24	376-0298	74S138
L25	SEE CHART	DMA 9517
L26-29	SEE CHART	2716
L30	SEE CHART	Z80A-CPU
L31,38	376-0286	74S374
L32	376-0324	74125
L33	376-0242	74LS280
L34,35	376-0204	74LS257
L36	376-0333	74S139
L37	SEE CHART	Z80-A CTC
L38-46	SEE CHART	MS4116
L49,50	376-0284	74LS241
L51	376-0200	74S08
L52	376-0207	74LS00
L25,30	376-9011	40 PIN SOCKET
L26-29	376-9003	24 PIN SOCKET
L37	376-9015	28 PIN SOCKET
L38-46	376-9002	16 PIN SOCKET

COMPONENT	W.L. PART NO.	TYPE
R1-12, 18, 29, 32	330-3010	1K 1/4W 10%
R13,27	330-3022	2.2K 1/4W 10%
R14	330-2022	220Ω 1/4W 10%
R15	330-3018	1.8K 1/4W 10%
R16	330-2033	330Ω 1/4W 10%
R17,20-26, 30,31	330-1022	22Ω 1/4W 10%
R19	330-1082	82Ω 1/4W 10%
R33,36,39-41	330-4010	10K 1/4W 10%
R28,34,35,37	330-4047	47K 1/4W 10%
C1-9,11,13,14, 34-36,40	300-1900	.047uf (C)
C10	300-1010	10Pf 10% 500V (C)
C12	300-1220	220Pf 500V (C)
C15,37-39, 41	300-4022	15uf 20V (T)
C16-33	300-1930	.1uf / HF 50V
C42	300-1082	82PF 500V
D1	380-1001	SIL DIODE
SW1	325-1503	SLIDE SW SPST
XTAL1	321-0009	8MHz 5% QUARTZ
R38	330-5012	120Ω 1/4W 10%

MNEMONIC	COORDINATE
A0-A3	1G1
BD0-BD7	2A5
BRD	1A8
BWR	1A8
BDACK0,BDACK1	2A4
DACK2	1A10
DISK DONE	2F11
DREQ0-DREQ2	1B11
EOP	1C11
PARITY ERROR	2D1
POR	2D11
PORT0,9 PORT2-PORT6	2G1
PORT60	2E1
READY	1C11
ZNMI	1G11
2200 INT	2F11
1MHz	2A6



		210 = 209 + 378 OR 377							
210	209	L25	L26	L27	L28	L29	L30	L37	L38-L46
7696-A	7696	377-0388	378-4223-R5	378-4222-R5	378-4221-R5	378-4220-R5	377-0368	377-0371	377-0345
7696-B	7696	377-0388	378-4230-R5	378-4222-R5	378-4221-R5	378-4220-R5	377-0368	377-0371	377-0345
SVP DUAL FLPY 7696-C	7696	377-0388	378-4234	378-4233	378-4232	378-4231	377-0368	377-0371	377-0345
7696-D	7696	377-0388				378-4252	377-0368	377-0371	377-0345
7696-E	7696	377-0388	378-4254	378-4242	378-4241	378-4240	377-0368	377-0371	377-0345

E-REV
1

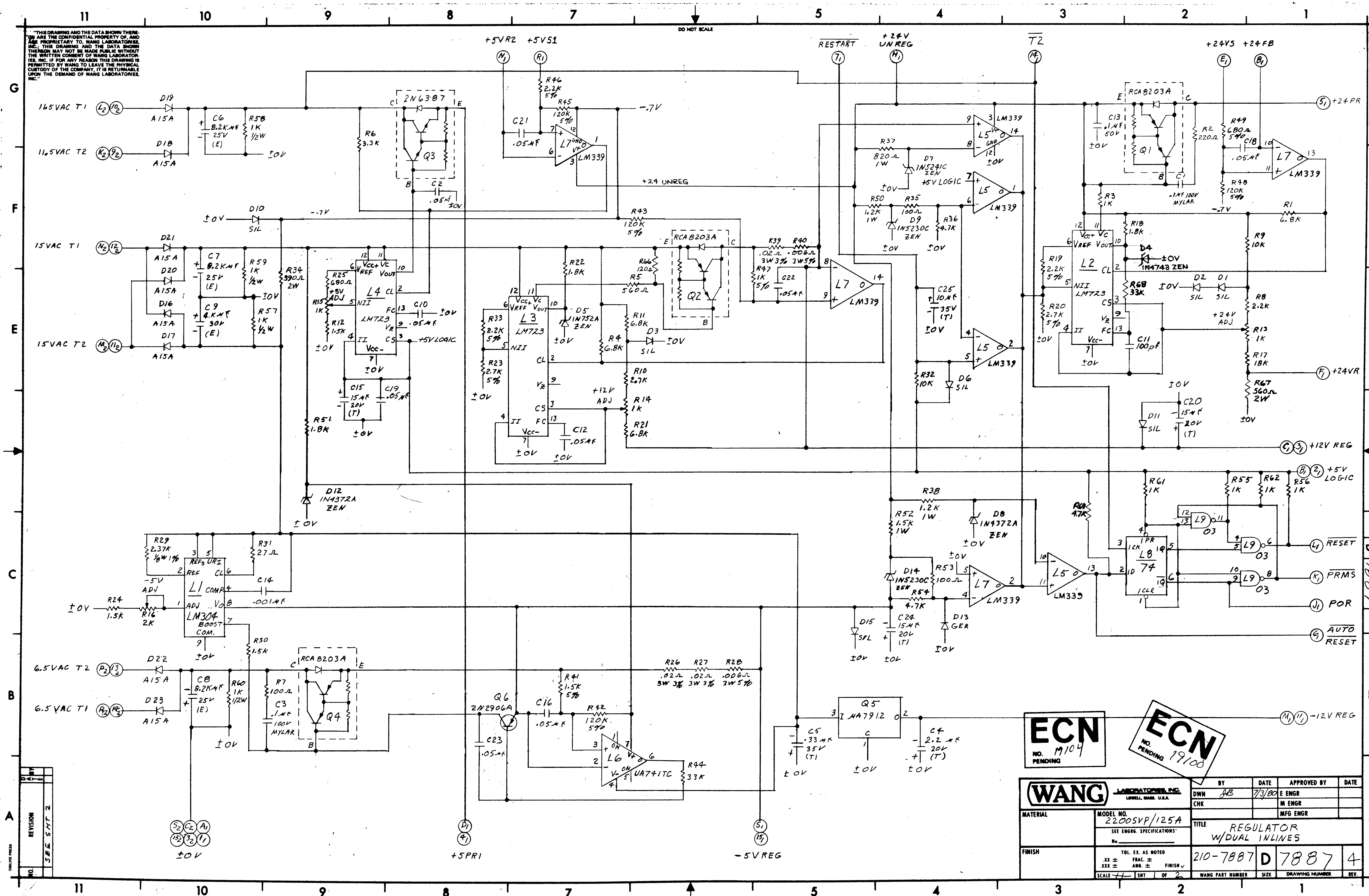
REVISION

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

MODEL NO. 2200LVP

TITLE MICROCOMPUTER & MEMORY

SEE CHART D 7696 8



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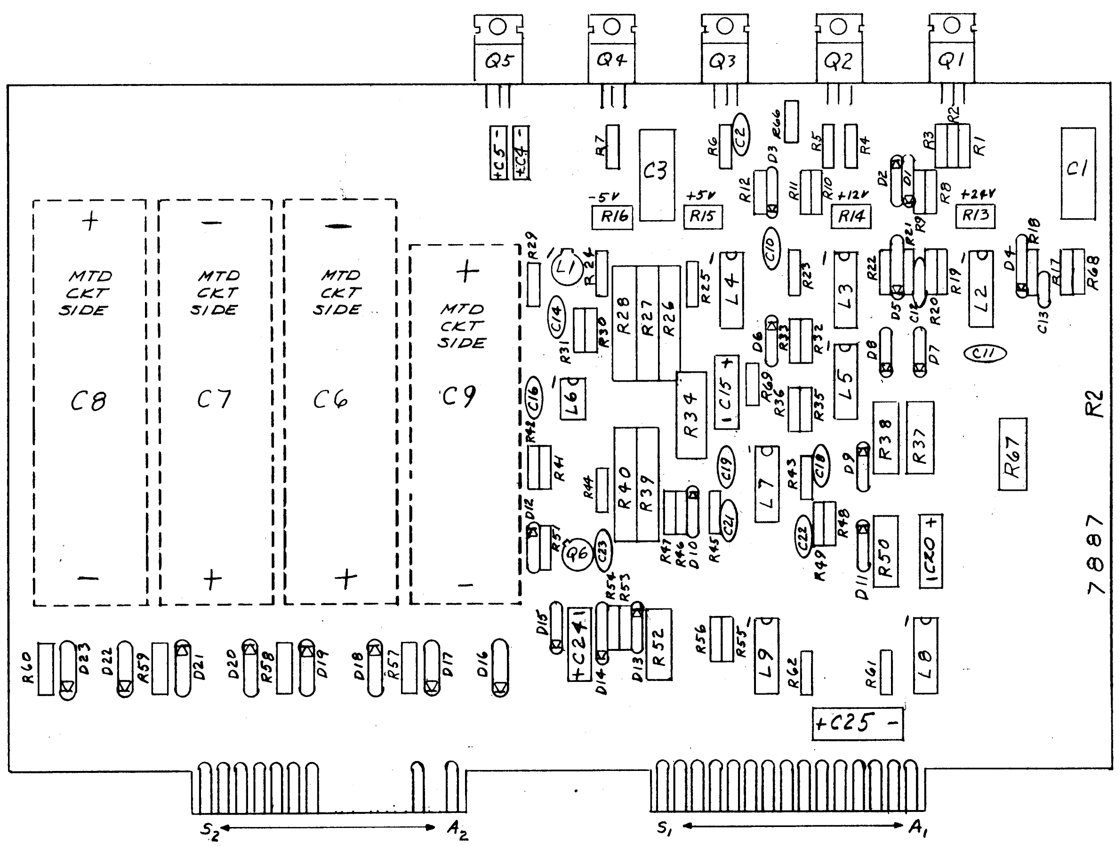
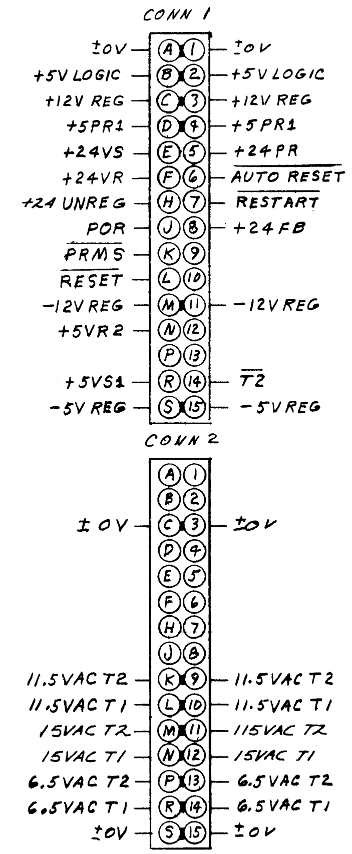
DO NOT SCALE
+5VR2
+5VS1
RESTART
+24V UNREG
T2
+24VS
+24FB
16.5VAC T1
11.5VAC T2
15VAC T1
15VAC T2
6.5VAC T2
6.5VAC T1
2N6387
Q3
RCA8203A
Q1
Q2
Q4
LM339
LM723
LM304
UA741TC
2N2906A
Q6
Q5
UA7912
74
-7V
+24 UNREG
+5V LOGIC
+24PR
+24VR
+12V REG
+5V LOGIC
RESET
PRMS
POR
AUTO RESET
-12V REG
+5PRI
-5V REG
±0V
ECN NO. PENDING M104
ECN NO. PENDING 19108
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MATERIAL
FINISH
MODEL NO. 2200SVP/125A
SEE ENGRG. SPECIFICATIONS
TITLE REGULATOR W/DUAL INLINES
DWN JB 7/3/80
E ENGR
M ENGR
MFG ENGR
210-7887
D
7887
4
WANG PART NUMBER
SIZE
DRAWING NUMBER
REV.
SCALE
SHT 1 OF 2
REVISION
SEE SHT 2

DO NOT SCALE





COMPONENT	W.L. PART NO.	TYPE
R1,4,11,21	330-3068	6.8K 1/4W 10%
R2	330-2022	220Ω 1/4W 10%
R3,55,56,61,62,	330-3010	1K 1/4W 10%
R5	330-2056	560Ω 1/4W 10%
R6	330-3033	3.3K 1/4W 10%
R7,35,53	330-2010	100Ω 1/4W 10%
R8	330-3022	2.2K 1/4W 10%
R9,32	330-4010	10K 1/4W 10%
R10	330-3027	2.7K 1/4W 10%
R12,24,30	330-3015	1.5K 1/4W 10%
R13,14,15	336-1001	1K POT
R16	336-1026	2K POT
R17	330-4018	18K 1/4W 10%
R18,22,51	330-3018	1.8K 1/4W 10%
R19,33,46	330-3023	2.2K 1/4W 5%
R20,23	330-3028	2.7K 1/4W 5%
R25	330-2068	680Ω 1/4W 10%
R26,27,39	334-0032	.02Ω 3W 3%
R29	333-0093	2.37K 1/8W 1%
R31	330-1027	27Ω 1/4W 10%
R34	337-2039	390Ω 2W 10%
R36,54,69	330-3047	4.7K 1/4W 10%
R37	332-2082	820Ω 1W 10%
R38,50	332-3012	1.2K 1W 10%
R28,40	334-0031	.006Ω 3W 5%
R41	330-3016	1.5K 1/4W 5%
R42,43,45,48	330-5013	120K 1/4W 5%
R44,68	330-4033	33K 1/4W 10%
R47	330-3011	1K 1/4W 5%
R49	330-2069	680Ω 1/4W 5%
R52	332-3015	1.5K 1W 10%
R57-60	331-3010	1K 1/2W 10%
R67	337-2056	560Ω, 2W, 10%
R66	330-2012	120Ω 1/4W 10%
C1,3	300-2210	.1μF 100V MYLAR
C2,10,12,16,18, 19,21,22,23	300-1900	.05μF 12V
C4	300-4014	2.2μF 20V (T)
C5	300-4008	.33μF 35V (T)
C6,7,8	300-3078	8.2KμF 25V (E)
C9	300-3080	4KμF 30V (E)
C11	300-1100	100pF, 500V 10%
C13	300-1930	.1μF 50V
C14	300-1906	.001μF 500V
C15,20,24	300-4022	15μF 20V (T)
C25	300-4032	10μF 35V (T)
D1,2,3,6,10,11,15	380-1001	D035 SIL
D4	380-2113	1N4743 13V
D5	380-2056	1N752A 5.6V
D7	380-2111	1N5241C 11V
D8,12	380-2129	1N4372A 3V
D9,14	380-2048	1N5230C 4.7V
D13	380-0000	GER
D16-23	380-3008	A15A
Q1,2,4	375-1053	RCA 8203A
Q3	375-1052	2N6387
Q5	374-0003	UA7912
Q6	375-1017	2N2906A

MNEMONICS	COOR'D
AUTO RESET	1B1
POR	1C1
PRMS	1C1
RESET	1C1
RESTART	1G5
T2	1G3
6.5VAC T1	1B11
6.5VAC T2	1B11
11.5VAC T1	1G11
11.5VAC T2	1F11
15 VAC T1	1F11
15 VAC T2	1F11
+5PR1	1A8
+5VLOGIC	1D1
+5VR2	1G8
+5VS1	1G7
-5VREG	1A5
+12VREG	1D1
-12VREG	1B1
+24PR	1G1
+24FB	1G1
+24V UNREG	1G4
+24VS	1G2
+24VR	1E1
±OV	1A10

I.C. LOC.	W.L PART NO	TYPE
L1	376-0134	LM304
L2,3,4	376-0478	LM723
L5,7	376-0240	LM339
L6	376-0423	UA741TC
L8	376-0006	7474
L9	376-0028	7403

I.C. TYPE	LOC	SPARES
7403	L9	1
7474	L8	1

D 7887

E-REV 2

NO.	REVISION	DATE	BY
0/0	ORG PER DWR # E8953 APP'D	7/3/80	JB
1/0	REVISED PER ECN # 16430 APP'D:	10.18.80	JEP
2/1	REVISED PER ECO # 17309 APP'D	1.22.81	T.K.
3/2	REVISED PER ECO # 17428 APP'D	1.23.81	T.K.
4/2	REVISED PER ECO # 17851 APP'D:	3.5.81	R.B.P.

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

	BY	DATE	APPROVED BY	DATE
DWN	JB	7/3/80	E ENGR	11/6/80
CHK		6 Nov 80	M ENGR	
			MFG ENGR	

MATERIAL

MODEL NO. 2200SVP/125A

SEE ENGRG. SPECIFICATIONS No.

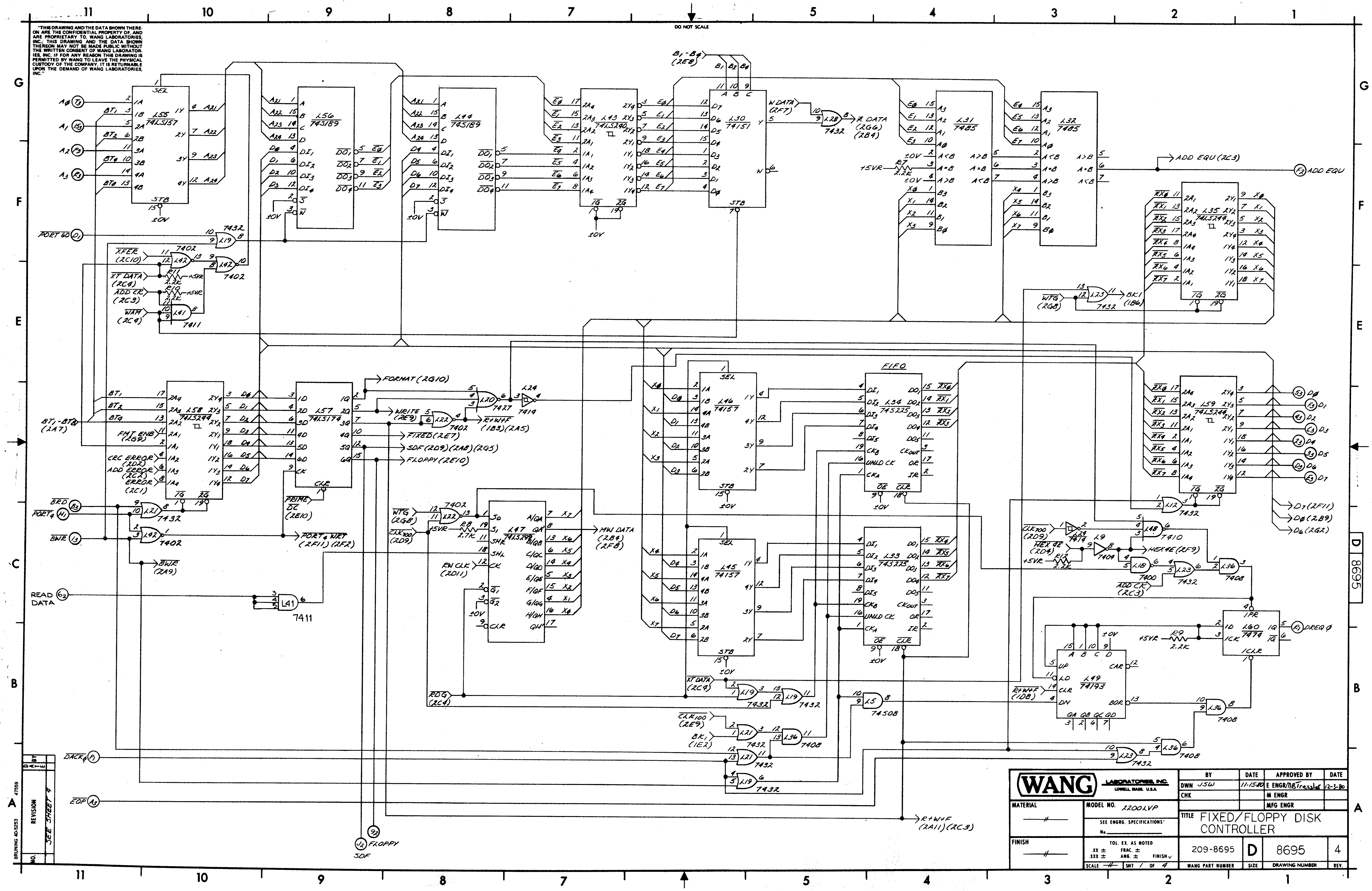
FINISH

TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH √

SCALE — SHT 2 OF 2

TITLE: REGULATOR W/DUAL INLINES

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
210-7887	D	7887	4



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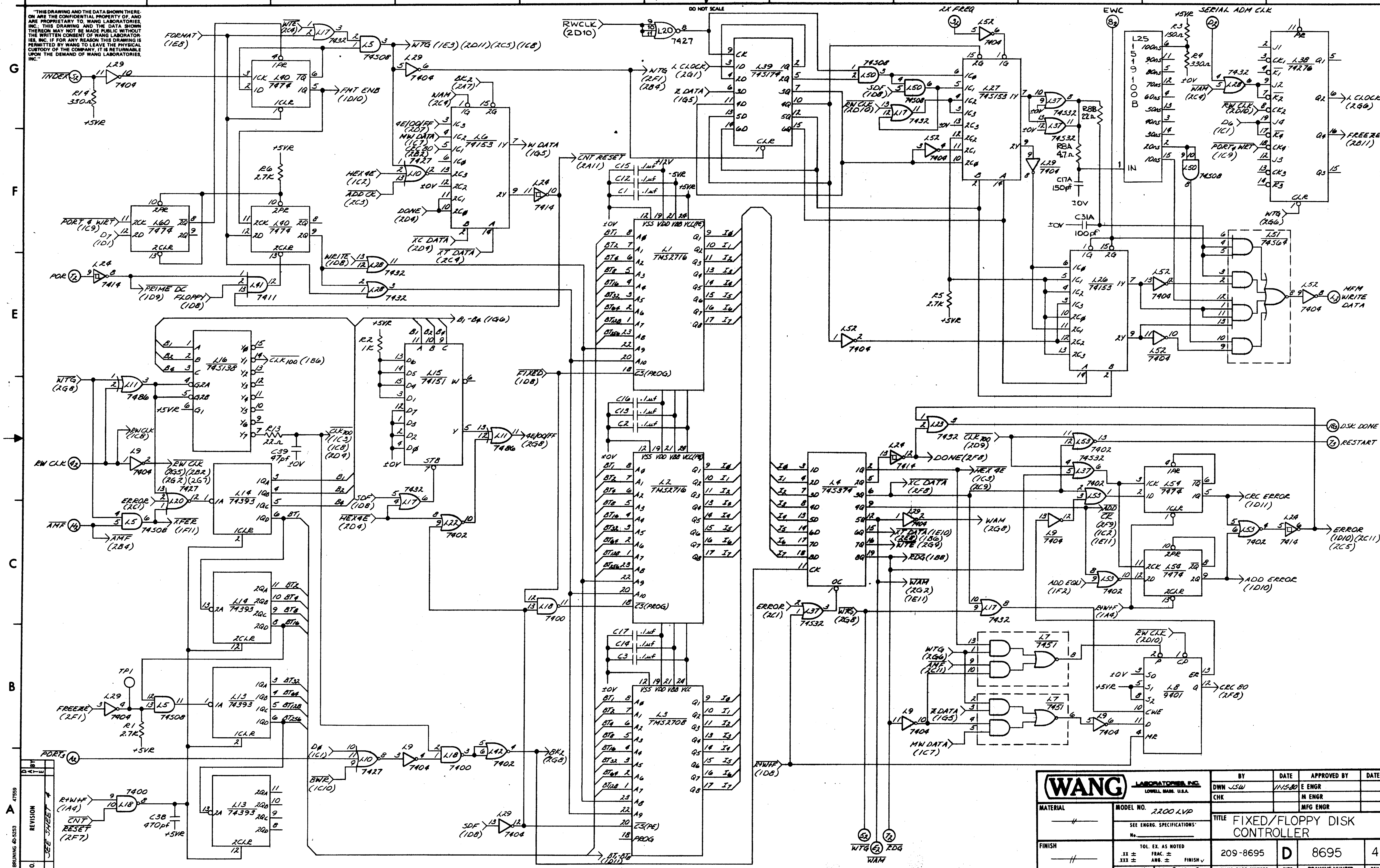
DO NOT SCALE
FIFO
ADD EQU
READ DATA
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
BY | DATE | APPROVED BY | DATE
DWN JSW | 11-15-80 | E ENGR MBTressler | 12-3-80
CHK | M ENGR
MFG ENGR
MATERIAL
MODEL NO. 2200LVP
SEE ENGRG. SPECIFICATIONS No.
FINISH
TOL. EX. AS NOTED .XX ± .XXX ± FRAC. ± ANG. ± FINISH
SCALE SHT 1 OF 4
TITLE FIXED/FLOPPY DISK CONTROLLER
209-8695 WANG PART NUMBER
D SIZE
8695 DRAWING NUMBER
4 REV.
D 8695



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DO NOT SCALE
WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.
MODEL NO. 2200 LVP
SEE ENGRG. SPECIFICATIONS
TITLE FIXED/FLOPPY DISK CONTROLLER
DWN JSW 11-15-80
209-8695
D
8695
4
SHT 2 OF 4
SEE SHEET 4
D 8695
L39 74S174
L27 74S153
L26 74S153
L38 74276
L25 1519-0100B
L51 74S64
L1 TMS2716
L2 TMS2716
L3 TMS2708
L4 74S374
L6 74153
L14 74393
L13 74393
L15 74151
L16 74S138
L40 7474
L60 7474
L59 7474
L54 7474
L8 9401
L7 7451
MFM WRITE DATA
DSK DONE
RESTART
CRC ERROR
ADD ERROR
ERROR
CRC 80
FREEZE
L CLOCK
SERIAL ADM CLK
2X FREQ
EWC
RWCLK
INDEX
POR
PORTS
AMF
RW CLK

DO NOT SCALE

8695-R2

TPI

C36 C11 C10 C9 C8 C7 C6 C5 C4 C3 C2 C1

R1 R10 R11 R12 R13 R14

L12 L11 L10 L9 L8 L7 L6 L5 L4 L3 L2 L1

L24 L23 L22 L21 L20 L19 L18 L17 L16 L15 L14 L13

C17 C16 C15 C38 C39

R2

C30 C29 C28 C27 C26 C25 C24 C23 C22 C21 C20 C18 C17A

L36 L35 L34 L33 L32 L31 L30 L29 L28 L27 L26 L25

R7 R8 R6 R5 R3 R4

C37

L48 L47 L46 L45 L44 L43 L42 L41 L40 L39 L38 L37

R8A R8B

C31

L60 L59 L58 L57 L56 L55 L54 L53 L52 L51 L50 L49

R9 C31A

- C35 + + C34 - + C32 - + C33 -

J3 A3 J2 A2 J1 A1

D 8695

DATE	BY	NO.	REVISION
			SEE SHEET 4

BRUNING 40-5253 A 47959

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.

BY	DATE	APPROVED BY	DATE
DWN JSW	11/15/80	E ENGR	
CHK		M ENGR	
		MFG ENGR	

MATERIAL —"—

MODEL NO. 2200LVP

SEE ENGRG. SPECIFICATIONS' No.

FINISH —"—

TOL. EX. AS NOTED
XX ± FRAC. ±
.XXX ± ANG. ± FINISH √

SCALE —"— SHT 3 OF 4

TITLE FIXED/FLOPPY DISK CONTROLLER

WANG PART NUMBER	SIZE	DRAWING NUMBER	REV.
209-8695	D	8695	4

DO NOT SCALE

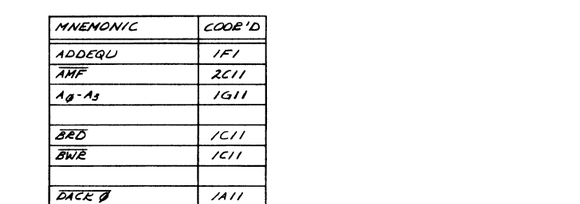
IC LOCATION	TYPE	W.L. PART NO.
L1, 2	TMS2716	SEE CHART
L3	TMS2708	SEE CHART
L4	74S374	376-0305
L5, 50	74S08	376-0200
L6, 26	74153	376-0048
L7	7451	376-0012
L8	9401	376-0440
L9, 29, 52	7404	376-0010
L10, 20	7427	376-0125
L11	7486	376-0036
L12, 17, 19, 21, 23, 28	7432	376-0093
L13, 14	74393	376-0330
L15, 30	74151	376-0047
L16	74S138	376-0298
L18	7400	376-0002
L22, 42, 53	7402	376-0016
L24	7414	376-0139
L25	1519-1008	376-8002
L27	74S153	376-0215
L31, 32	7485	376-0087
L33, 34	74S225	376-0323
L35, 58, 59	74LS244	376-0288
L36	7408	376-0081
L37	74S32	376-0205
L38	74276	376-0318
L39	74S174	376-0247
L40, 54, 60	7474	376-0006
L41	7411	376-0194
L43	74LS240	376-0297
L44, 56	74S189	376-0349
L45, 46	74157	376-0082
L47	74LS299	376-0303
L48	7410	376-0003
L49	74193	376-0053
L51	74S64	376-0201
L55	74LS157	376-0216
L57	74LS174	376-0159
L1, 2, 3	24 PIN SKT	376-9003

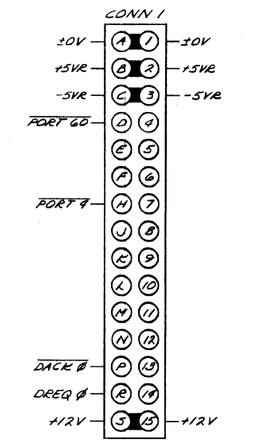
COMPONENT	TYPE	W.L. PART NO.
R1, 5, 6, 8	2.7K 1/4W 10%	330-3027
R2	1K 1/4W 10%	330-3010
R3	150Ω 1/4W 10%	330-2015
R4, 14	330Ω 1/4W 10%	330-3033
R7, 9, 10, 11, 12	2.2K 1/4W 10%	330-3022
R13, 88	22Ω 1/4W 10%	330-1022
RBA	4.7Ω 1/4W 10%	330-0047
C1-3, 12-17	.1μf 50V	300-1930
C9-11, 18-31, 36, 37	.05μf 12V	300-1900
C32-35	15μf 20V (T)	300-4022
C38	470pf 500V	300-1470
C39	47pf 500V	300-1047
C17A	150pf 300V	300-1150
C31A	100 pf 500V	300-1100

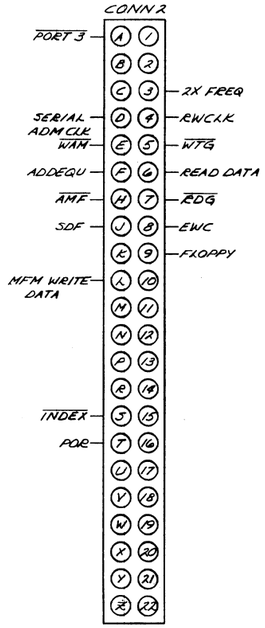
TYPE	IC LOCATION	SPARES
7402	L22	1
74S08	L50	1
7410	L48	2
7427	L10	1
7432	L12	3
	L21	1
7486	L11	2

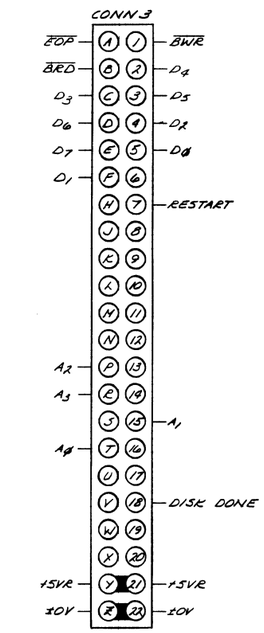
MNEMONIC	COOR'D
ADDEQU	1F1
$\overline{AMF}$	2C11
A0-A3	1G11
$\overline{BRD}$	1C11
$\overline{BWR}$	1C11
$\overline{DACK\ 0}$	1A11
DISK DONE	2D1
DREQ 0	1B1
D0-D7	1D1
$\overline{EOP}$	1A11
EWC	2G3
FLOPPY	1A9
$\overline{INDEX}$	2G11
MFM WRITE DATA	2E1
POR	2E11
$\overline{PORT\ 3}$	2A11
$\overline{PORT\ 4}$	1C11
$\overline{PORT\ 60}$	1F11
$\overline{RDG}$	2A5
READ DATA	1C11
RESTART	2D1
RWCLK	2D11
SDF	1A9
SERIAL ADM CLK	2G2
$\overline{WAM}$	2A5
$\overline{WTG}$	2A5
2X FREQ	2G9

210-209+377 OR 378				
210	209	L1	L2	L3
8695-A	8695	378-9229	378-9225	378-2560-R1









E-REV
2

BY	REVISION	NO.
JSW 11-15-80	ORIGINATED PER DWG #2637 APPD: [illegible] 3 Dec 80	1/0
JSW 12-2-80	REVISED PER ECO #17197 APP'D: [illegible] 3 Dec 80	1/0
JEP 4-16-81	REVISED PER ECO # 17847 APP'D: [illegible] MAR 81	2/1
JEP 4-16-81	REVISED PER ECO # 18161 APP'D: [illegible] MAR 81	3/1
JEP 4-17-81	REVISED PER ECO# 18162 APP'D: [illegible] MAR 81	4/2

WANG LABORATORIES, INC. LOWELL, MASS. U.S.A.	BY	DATE	APPROVED BY	DATE
	DWN JSW	11-15-80	E ENGR [illegible]	12-3-80
	CHK [illegible]	3 DEC 80	M ENGR	
			MFG ENGR	

MATERIAL	MODEL NO. 2200LVP	TITLE FIXED/FLOPPY DISK CONTROLLER
	SEE ENGRG. SPECIFICATIONS No.	
FINISH	TOL. EX. AS NOTED .XX ± FRAC ± .XXX ± ANG. ± FINISH √	209-8695 (WANG PART NUMBER) | D (SIZE) | 8695 (DRAWING NUMBER) | 4 (REV.)
	SCALE — SHT 1 OF 1	

D 8695

47599 BRUNING 40-5253

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