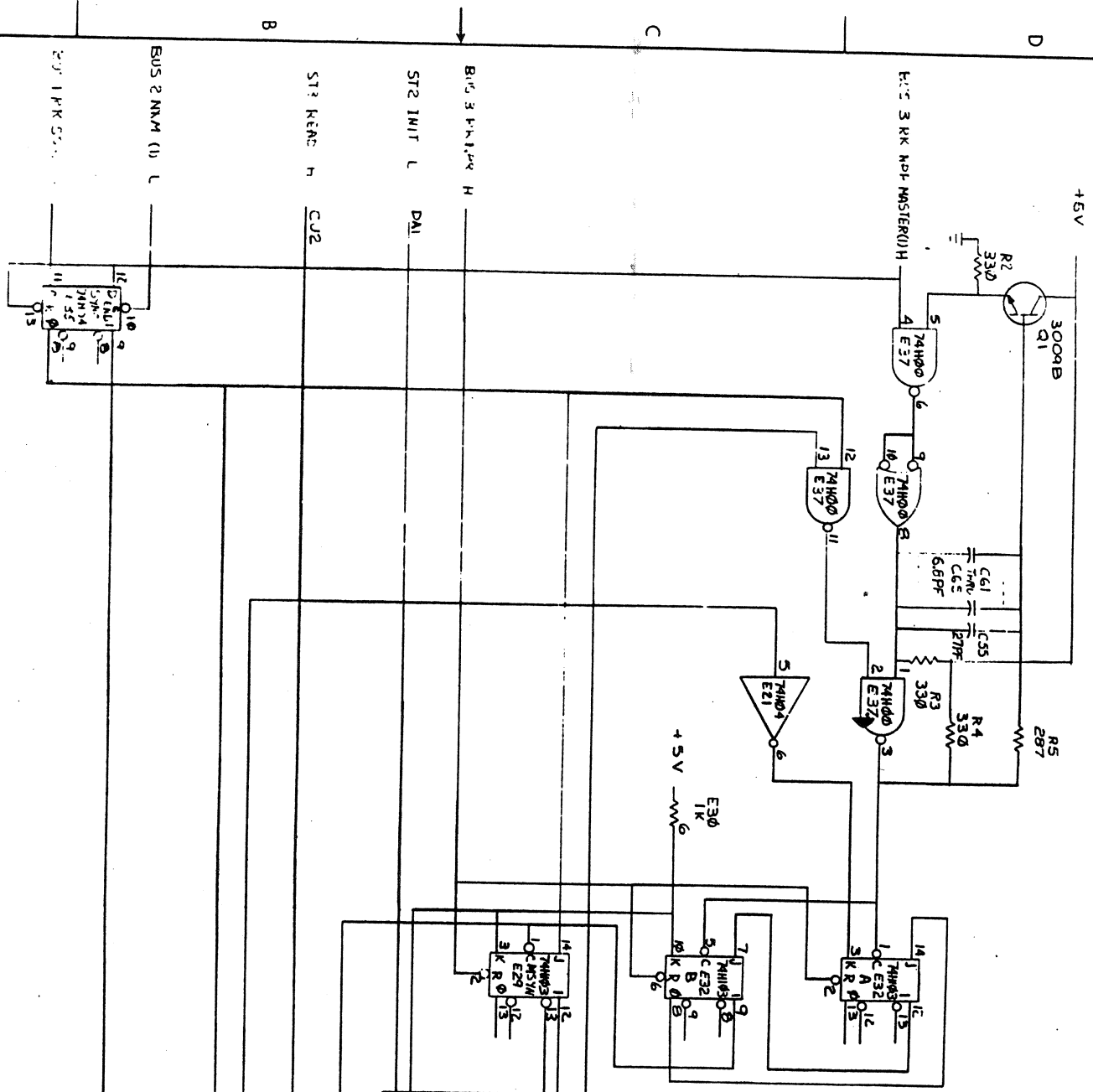
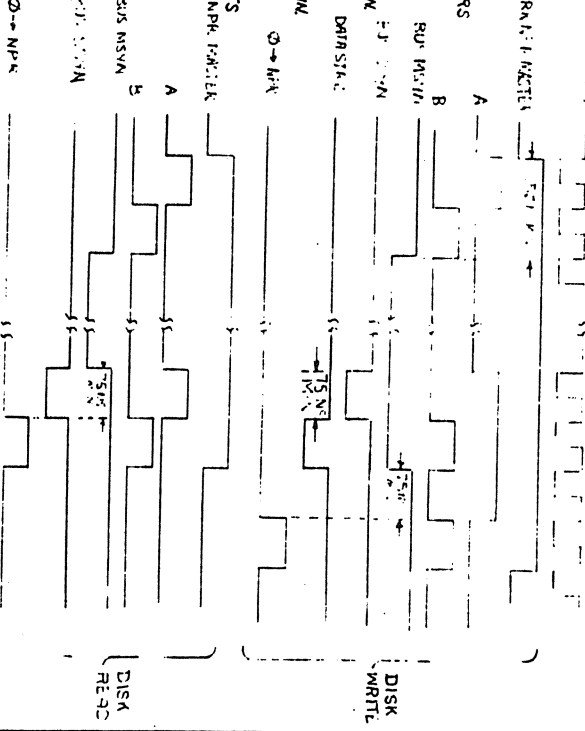


OPTIONAL



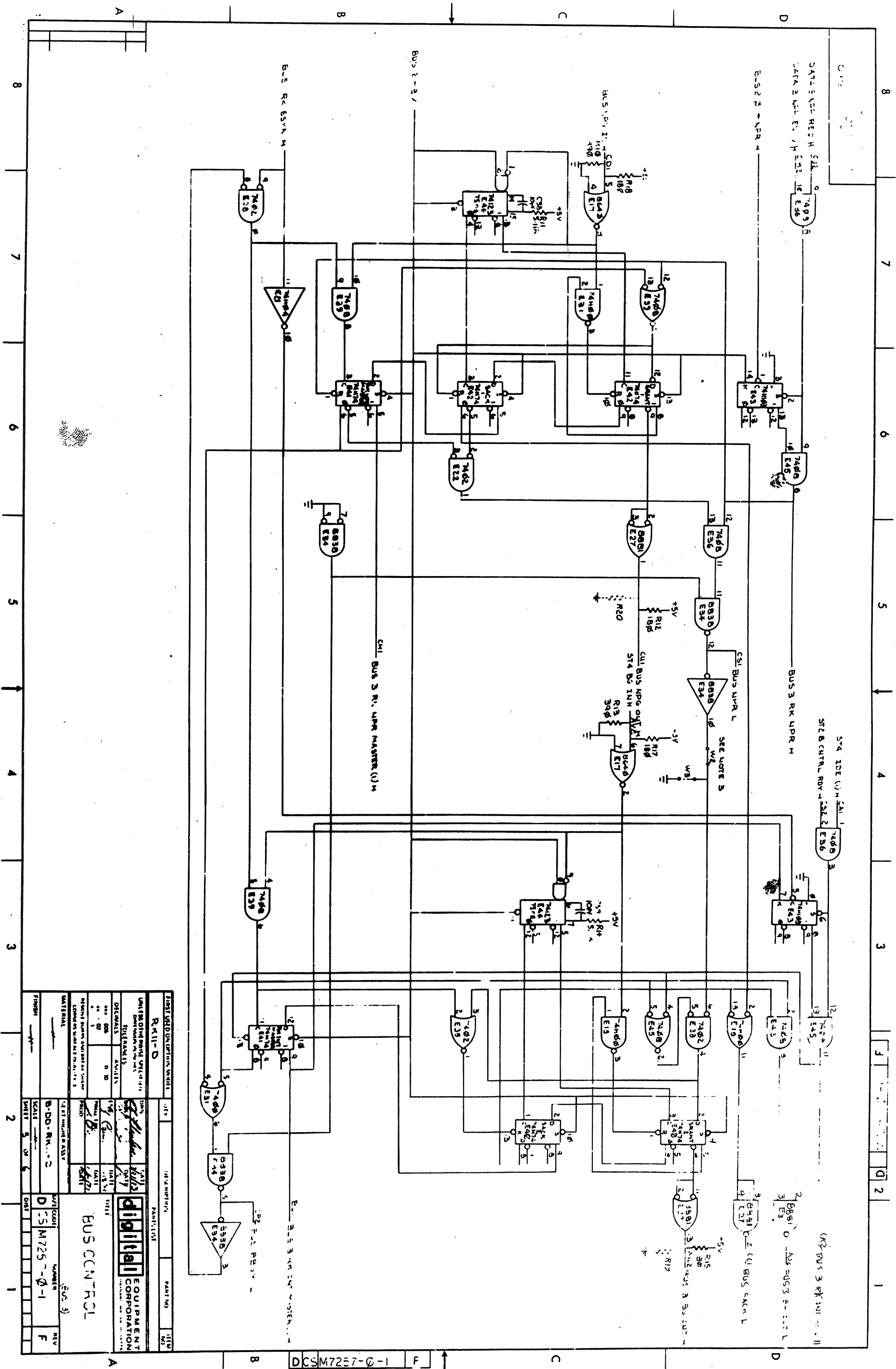
- SET UP UNIBUS TIMING AS FOLLOWS:
1. TIMING ADJUSTMENTS ARE MADE BY REMOVING CAPACITORS C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100 AS REQUIRED. WITH C61 THRU C65 ALL INSTALLED THE OUTPUT AT E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15, E16, E17, E18, E19, E20, E21, E22, E23, E24, E25, E26, E27, E28, E29, E30, E31, E32, E33, E34, E35, E36, E37, E38, E39, E40, E41, E42, E43, E44, E45, E46, E47, E48, E49, E50, E51, E52, E53, E54, E55, E56, E57, E58, E59, E60, E61, E62, E63, E64, E65, E66, E67, E68, E69, E70, E71, E72, E73, E74, E75, E76, E77, E78, E79, E80, E81, E82, E83, E84, E85, E86, E87, E88, E89, E90, E91, E92, E93, E94, E95, E96, E97, E98, E99, E100 HAS A PERIOD OF  $\approx 1.8$  NSEC. REMOVAL OF EACH CAP DECREASES THIS BY  $\approx 1$  NSEC.
  2. MAKE THE FOLLOWS MEASUREMENT AND ADJUSTMENT WHILE DOING A DISK WRITE.
    - a. SYNC EXTERNALLY ON RKNR MASTER(I)H
    - b. MEASURE FROM BUS BSYN L TO BUS MSYN L. DELETE CAPACITORS AS REQUIRED TO MAKE THIS TIME EQUAL TO 150 NSEC MINIMUM.
    3. TO VERIFY PROPER TIMING MAKE THE FOLLOWING MEASUREMENTS:
      - a. WHILE DOING A DISK WRITE, SYNC EXTERNALLY ON END SYNC(I)H
      - b. MEASURE FROM BUS BSYN L TO DATA STR 2L. EQUAL TO 75 NSEC MIN
      - c. MEASURE FROM BUS MSYN L TO  $\phi$  - NPH H EQUAL TO 75 NSEC MIN
      - d. WHILE DOING A DISK READ, SYNC EXTERNALLY ON END SYNC(I)H
      - e. MEASURE FROM BUS MSYN L TO  $\phi$  - NPH H EQUAL TO 75 NSEC MIN
      - f. MEASURE FROM BUS MSYN L TO  $\phi$  - NPH H EQUAL TO 75 NSEC MIN
    4. IF ANY TIMES MEASURED IN PART 3 ABOVE ARE LESS THAN 75 NSEC ADD ONE 6.8 CAP
    5. IF ANY COMPONENT IN THE TIMING CIRCUIT IS REPLACED, MEASUREMENTS MUST BE RETAKEN AND CAPACITORS ADDED OR REMOVED AS REQUIRED.

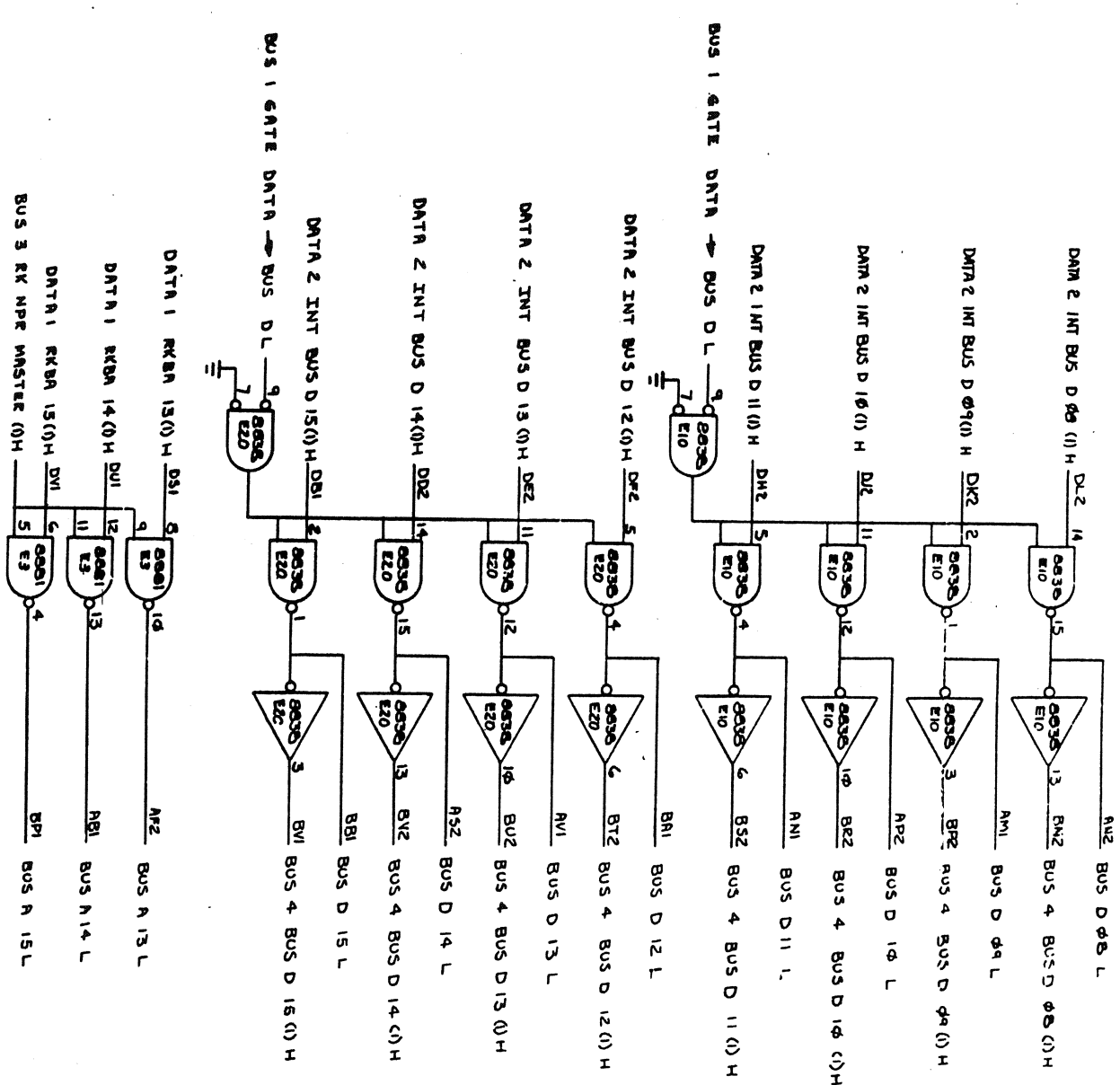
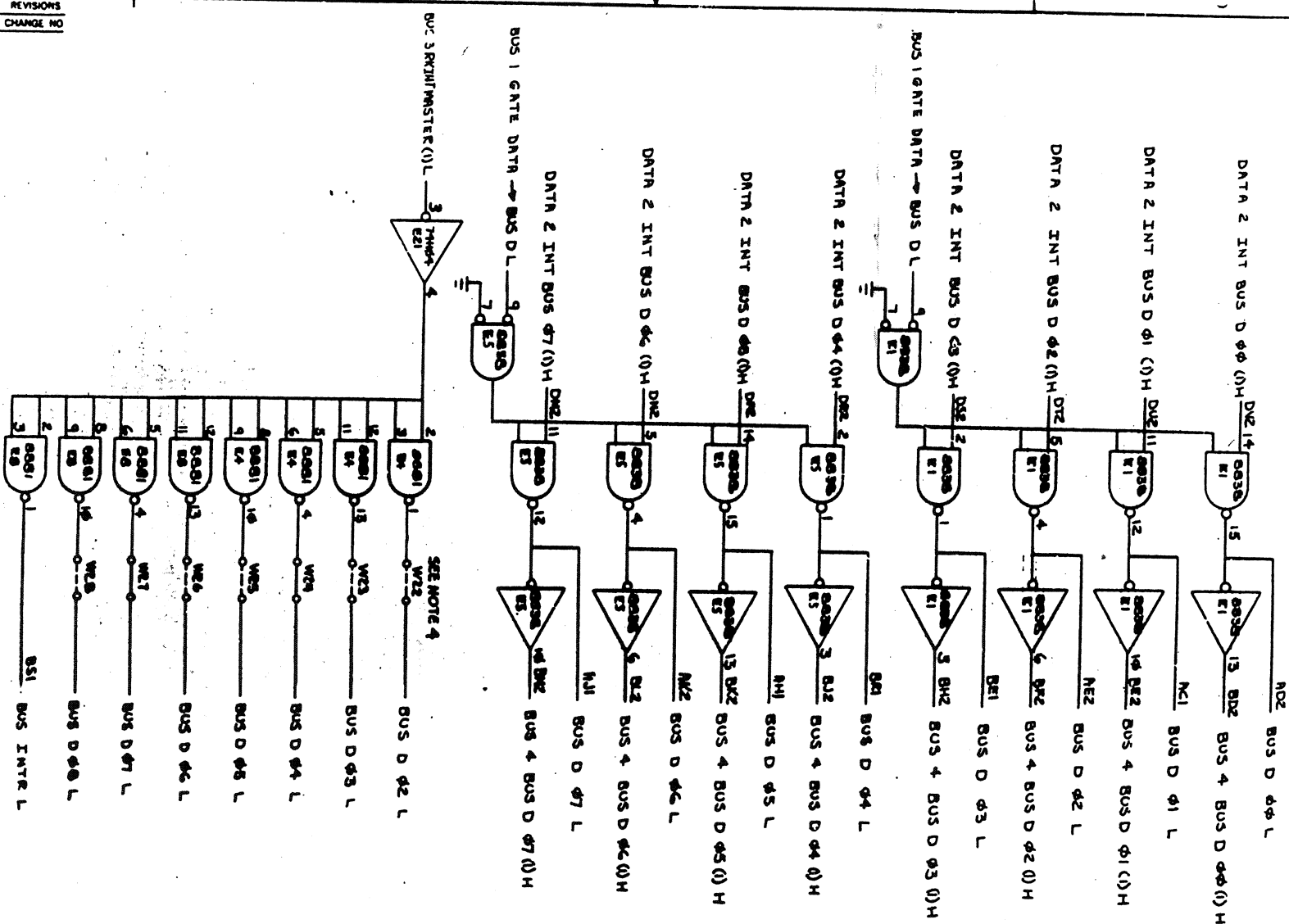


FIRST USED ON OPTION MODEL		DATE	BY	REVISION
RK11-D				
UNITS: 1000'S OF INCHES		DATE: 11/10/77		
TOLERANCES: FRACTIONS		DATE: 11/10/77		
DECIMALS: 0.00		DATE: 11/10/77		
NEUTRAL: 0.00		DATE: 11/10/77		
MATERIAL: 1/2" ALUMINUM		DATE: 11/10/77		
FINISH: 1/2" ALUMINUM		DATE: 11/10/77		
SCALE: 1/2" = 1"		DATE: 11/10/77		
SHEET: 4 OF 6		DATE: 11/10/77		
DIST: 1		DATE: 11/10/77		
PART NO.		PART NO.		
TITLE		TITLE		
BUS CONTROL		BUS CONTROL		
DGS M7257-0-1		DGS M7257-0-1		
REV: 5		REV: 5		

DGS M7257-0-1

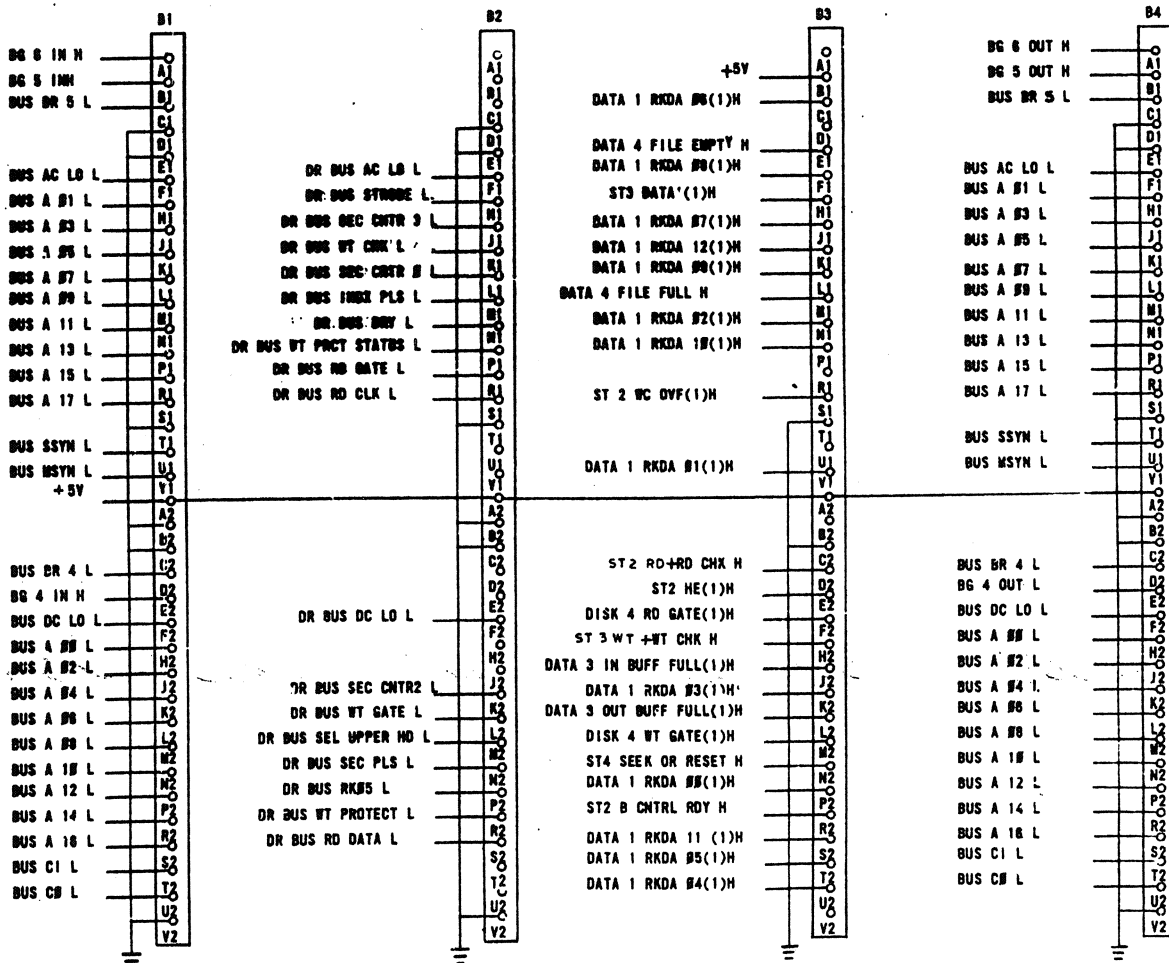
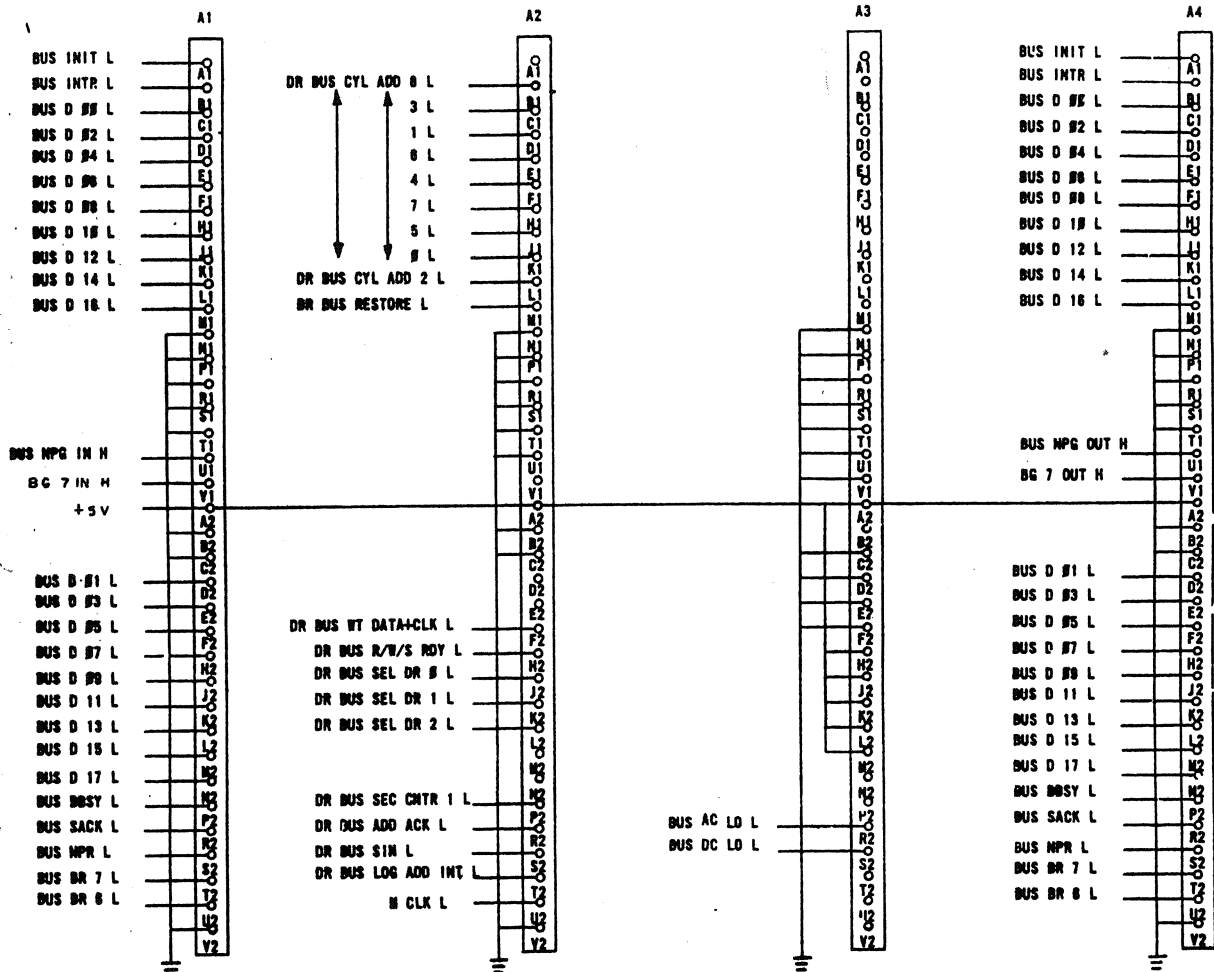




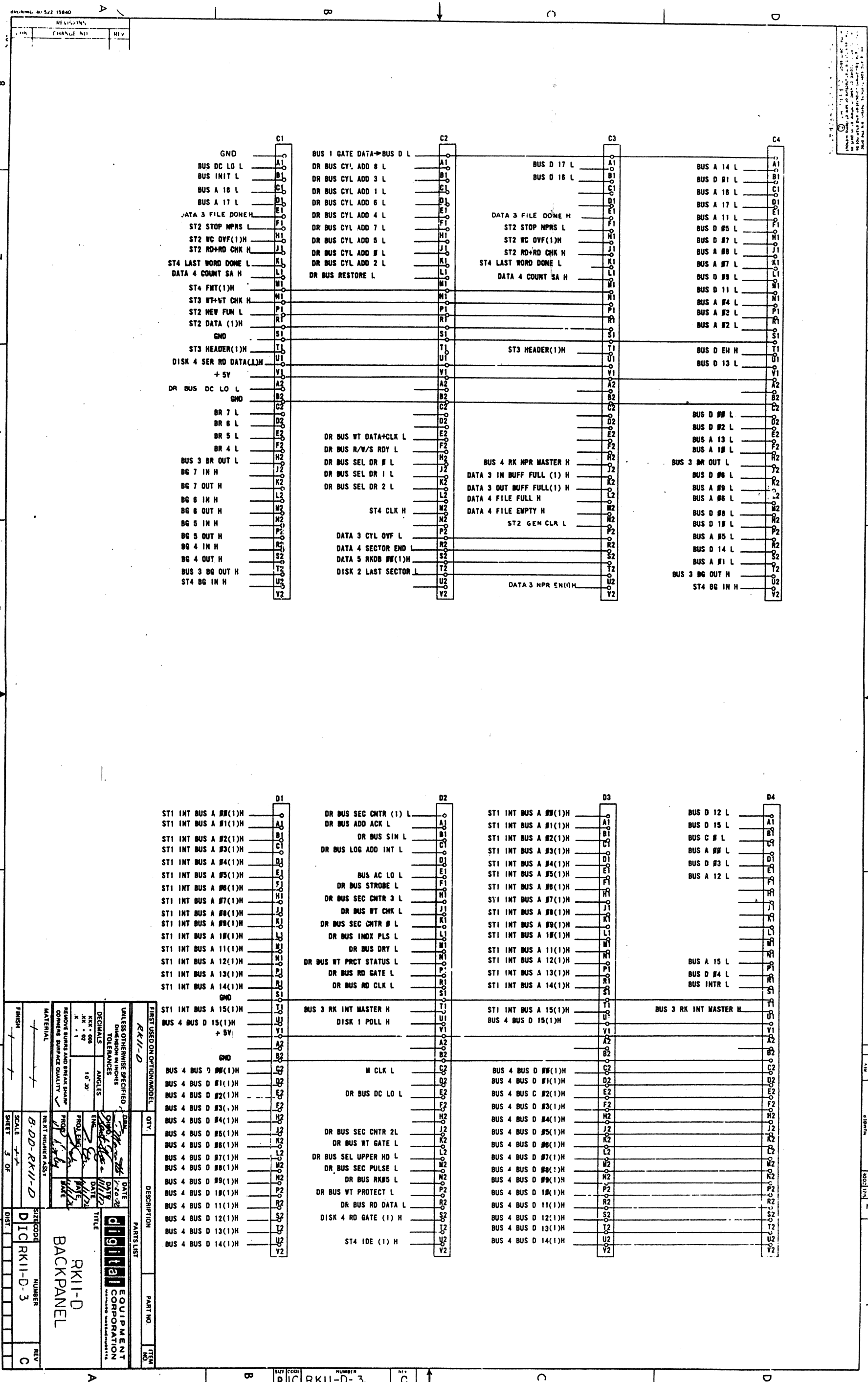
[illegible]



REVISIONS		
CHK	CHANGE NO.	REV



FIRST USED ON (OPTIONAL) MODEL		QTY.		DESCRIPTION		PART NO.		ITEM NO.	
RKII-D									
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES.									
TOLERANCES									
DECIMALS		ANGLES							
.001 - .005		± 0° 30'							
.005 - .020		± 0° 00'							
.020 - .063		± 0° 00'							
.063 - .125		± 0° 00'							
.125 - .250		± 0° 00'							
.250 - .500		± 0° 00'							
.500 - 1.000		± 0° 00'							
1.000 - 2.000		± 0° 00'							
2.000 - 4.000		± 0° 00'							
4.000 - 8.000		± 0° 00'							
8.000 - 16.000		± 0° 00'							
16.000 - 32.000		± 0° 00'							
32.000 - 64.000		± 0° 00'							
64.000 - 128.000		± 0° 00'							
128.000 - 256.000		± 0° 00'							
256.000 - 512.000		± 0° 00'							
512.000 - 1024.000		± 0° 00'							
1024.000 - 2048.000		± 0° 00'							
2048.000 - 4096.000		± 0° 00'							
4096.000 - 8192.000		± 0° 00'							
8192.000 - 16384.000		± 0° 00'							
16384.000 - 32768.000		± 0° 00'							
32768.000 - 65536.000		± 0° 00'							
65536.000 - 131072.000		± 0° 00'							
131072.000 - 262144.000		± 0° 00'							
262144.000 - 524288.000		± 0° 00'							
524288.000 - 1048576.000		± 0° 00'							
1048576.000 - 2097152.000		± 0° 00'							
2097152.000 - 4194304.000		± 0° 00'							
4194304.000 - 8388608.000		± 0° 00'							
8388608.000 - 16777216.000		± 0° 00'							
16777216.000 - 33554432.000		± 0° 00'							
33554432.000 - 67108864.000		± 0° 00'							
67108864.000 - 134217728.000		± 0° 00'							
134217728.000 - 268435456.000		± 0° 00'							
268435456.000 - 536870912.000		± 0° 00'							
536870912.000 - 1073741824.000		± 0° 00'							
1073741824.000 - 2147483648.000		± 0° 00'							
2147483648.000 - 4294967296.000		± 0° 00'							
4294967296.000 - 8589934592.000		± 0° 00'							
8589934592.000 - 17179869184.000		± 0° 00'							
17179869184.000 - 34359738368.000		± 0° 00'							
34359738368.000 - 68719476736.000		± 0° 00'							
68719476736.000 - 137438953472.000		± 0° 00'							
137438953472.000 - 274877906944.000		± 0° 00'							
274877906944.000 - 549755813888.000		± 0° 00'							
549755813888.000 - 1099511627776.000		± 0° 00'							
1099511627776.000 - 2199023255552.000		± 0° 00'							
2199023255552.000 - 4398046511104.000		± 0° 00'							
4398046511104.000 - 8796093022208.000		± 0° 00'							
8796093022208.000 - 17592186044416.000		± 0° 00'							
17592186044416.000 - 35184372088832.000		± 0° 00'							
35184372088832.000 - 70368744177664.000		± 0° 00'							
70368744177664.000 - 140737488355328.000		± 0° 00'							
140737488355328.000 - 281474976710656.000		± 0° 00'							
281474976710656.000 - 562949953421312.000		± 0° 00'							
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1125899906842624.000 - 2251799813685248.000		± 0° 00'							
2251799813685248.000 - 4503599627370496.000		± 0° 00'							
4503599627370496.000 - 9007199254740992.000		± 0° 00'							



REVISIONS			
REV	DESCRIPTION	DATE	BY
1	INITIAL DESIGN	10-20-72	W. J. B.
2	REVISED FOR MANUFACTURING	11-10-72	W. J. B.
3	REVISED FOR MANUFACTURING	11-10-72	W. J. B.
4	REVISED FOR MANUFACTURING	11-10-72	W. J. B.
5	REVISED FOR MANUFACTURING	11-10-72	W. J. B.
6	REVISED FOR MANUFACTURING	11-10-72	W. J. B.
7	REVISED FOR MANUFACTURING	11-10-72	W. J. B.
8	REVISED FOR MANUFACTURING	11-10-72	W. J. B.

PARTS LIST			
ITEM NO.	DESCRIPTION	QTY	PART NO.
1	RESISTOR 10K 1/4W	100	10K-100
2	CAPACITOR 100P 50V	50	100P-50V
3	IC 74181	1	74181
4	IC 74182	1	74182
5	IC 74183	1	74183
6	IC 74184	1	74184
7	IC 74185	1	74185
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