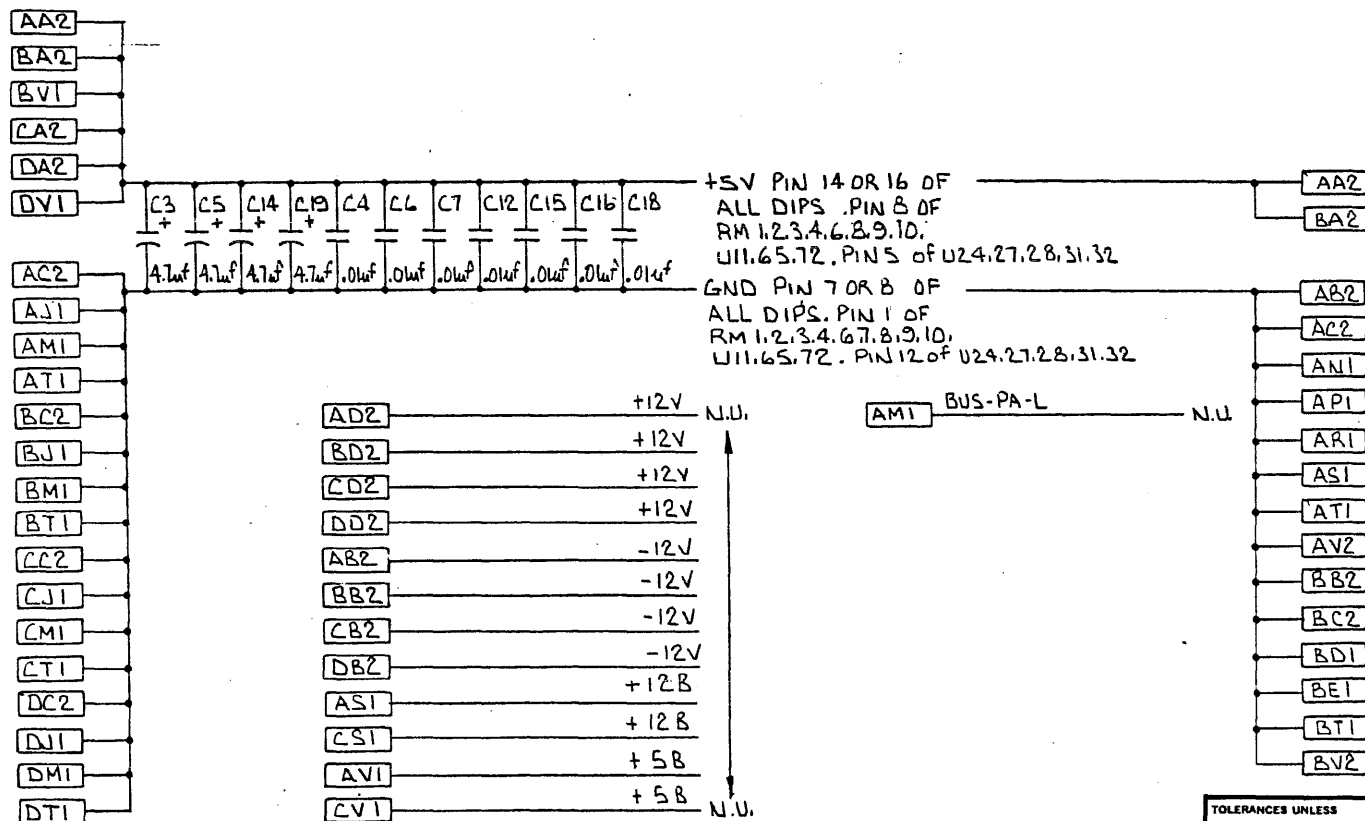


THE INFORMATION CONTAINED HEREON IS THE PROPERTY OF ABLE COMPUTER TECHNOLOGY, INC. TRANSMITTAL, RECEIPT OR POSSESSION OF THE INFORMATION DOES NOT EXPRESS, LICENSE, OR IMPLY ANY RIGHTS TO USE, SELL, OR MANUFACTURE FROM THIS INFORMATION AND NO REPRODUCTION OR PUBLICATION OF IT, IN WHOLE OR IN PART, SHALL BE MADE WITHOUT WRITTEN AUTHORIZATION FROM AN OFFICER OF THE ABOVE FIRM.

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
B	PRODUCTION REL. PER E.O. 00135	10-25-79	<i>JRT</i>
E	INC. PER E.O. 00147	1-17-80	<i>JPR</i>



REF. ONLY

TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC ANGLES		<b>ABLE COMPUTER TECHNOLOGY</b>	
±	±	±	±	SCHEMATIC- QNIVERTER	
APPROVALS	DATE				
DRAWN <i>JRT</i>	7/19/79				
CHECKED <i>RJA</i>	10-25-79	SCALE	SIZE	DRAWING NO.	
<i>JPR</i>	1-17-80		<b>B</b>	<b>10067003</b>	
DO NOT SCALE DRAWING			SHEET 1 OF 19		

3. ALL CAPS. ARE IN PF.

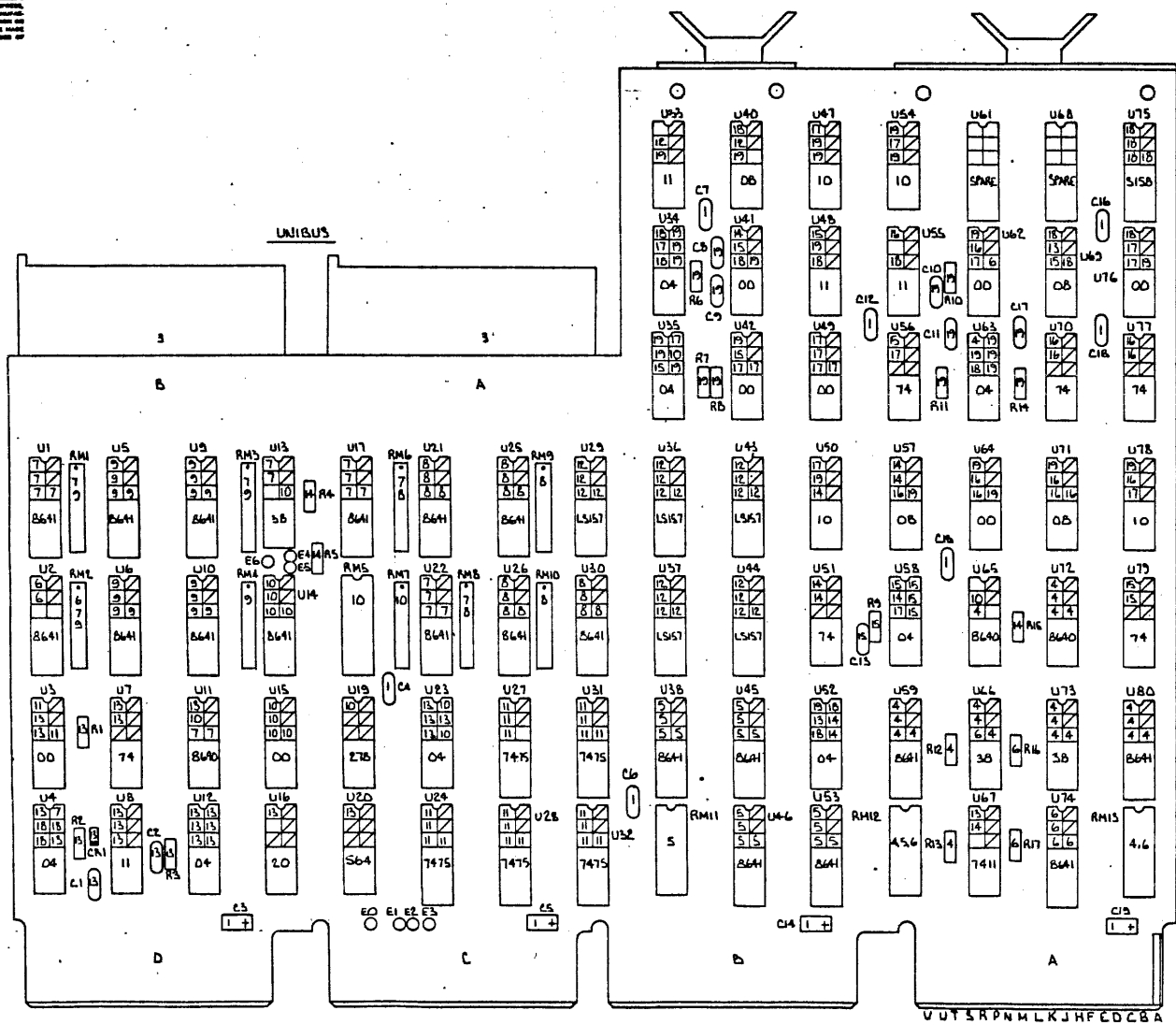
2. RMS. 11, 12 & 13 ARE SOCKET MOUNTED & REMOVEABLE.

1. ALL RESISTORS ARE 1/4W, 5%.

NOTES: UNLESS OTHERWISE SPECIFIED.

ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF THE UNITED STATES GOVERNMENT AND IS LOANED TO YOU BY THE NATIONAL ARCHIVES. IT IS TO BE REPRODUCED AND TRANSMITTED IN ANY FORM AND BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM THE NATIONAL ARCHIVES. THIS DOCUMENT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM THE NATIONAL ARCHIVES.

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED
1	SEE SAT 1.		



COMP. TYPE	LAST NO. USED	UNUSED
I.C.	U80	U78, 79, 80
CAPACITOR	C19	81
RESISTOR	R17	
RES. MOD	RM13	
DIODE	CR1	

AA1-COMPONENT SIDE  
AA2-SOLDER SIDE

D-BUS

ACT Analog Conversion Technology

SCHEMATIC CONVERTER

SCALE: 1:1

DATE: 1/5/75

REV: D

10067003

DO NOT SCALE DRAWING

THIS DOCUMENT CONTAINS INFORMATION OF THE PROPERTY OF  
 THE UNITED STATES GOVERNMENT AND IS NOT TO BE  
 REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY  
 MEANS, ELECTRONIC OR MECHANICAL, INCLUDING  
 PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION  
 STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION  
 IN WRITING FROM THE NATIONAL BUREAU OF STANDARDS,  
 GAITHERSBURG, MARYLAND 20899.

SHT	1	B	2	SHT
10	BUS-BG6-H	A	+5V	1
10	BUS-BG5-H	B	GND	1
7	BUS-BR5-L	C	GND	1
1	GND	D	BUS-BR4-L	7
1	GND	E	BG4-H	10
6	BUS-AC10-L	F	YL0-L	6
9	AD1-L	H	A00-L	9
9	AD3-L	J	A02-L	9
9	AD5-L	K	A04-L	9
9	AD7-L	L	A06-L	9
9	AD9-L	M	A08-L	9
9	A11-L	N	A10-L	9
9	A13-L	P	A12-L	9
9	A15-L	R	A14-L	9
6	BUS-A17-L	S	A16-L	6
1	GND	T	CI-L	7
7	BUS-SSYN-L	U	BUS-C0-L	7
7	BUS-MSYN-L	V	GND	1

SHT	1	A	2	SHT
7	BUS-INIT-L	A	+5V	1
7	INTR-L	B	GND	1
8	DO0-L	C	GND	1
8	DO2-L	D	BUS-DO1-L	8
8	DO4-L	E	DO3-L	8
8	DO6-L	F	DO5-L	8
8	DO8-L	H	DO7-L	8
8	DIO-L	J	DO9-L	8
8	DI2-L	K	D11-L	8
8	DI4-L	L	D13-L	8
	BUS-PA-L	M	D15-L	8
1	GND	N	PB-L	7
1	GND	P	BBSY-L	7
1	GND	R	SACK-L	7
1	GND	S	NPR-L	7
1	GND	T	BR7-L	7
10	BUS-NP6-H	U	BUS-BR6-L	7
10	BUS-BG7-H	V	GND	1

### UNIBUS

SHT	1	D	2	SHT
		A	+5V	1
		B	-12V	
		C	GND	1
		D	+12V	
		E		
		F		
1	GND	J		
		K		
1	GND	M		
		N		
		P		
		R		
		S		
1	GND	T		
		U		
1	+5V	V		

SHT	1	C	2	SHT
		A	+5V	1
		B	-12V	
		C	GND	1
		D	+12V	
		E		
		F		
1	GND	J		
		K		
		L		
1	GND	M	BIAKI-L	6
		N	BIAKO-L	6
		P		
		R	BDMGI-L	6
	+12B	S	BDMGO-L	6
1	GND	T		
		U		
	+5B	V		

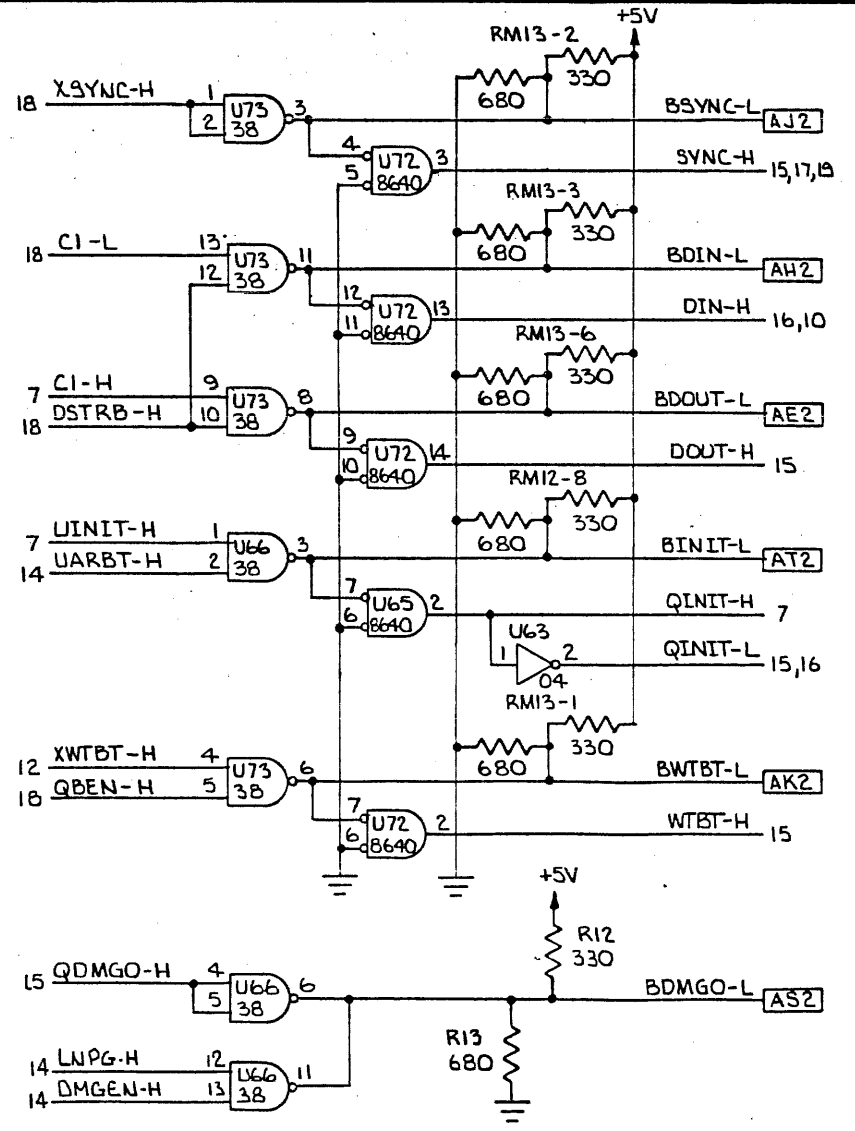
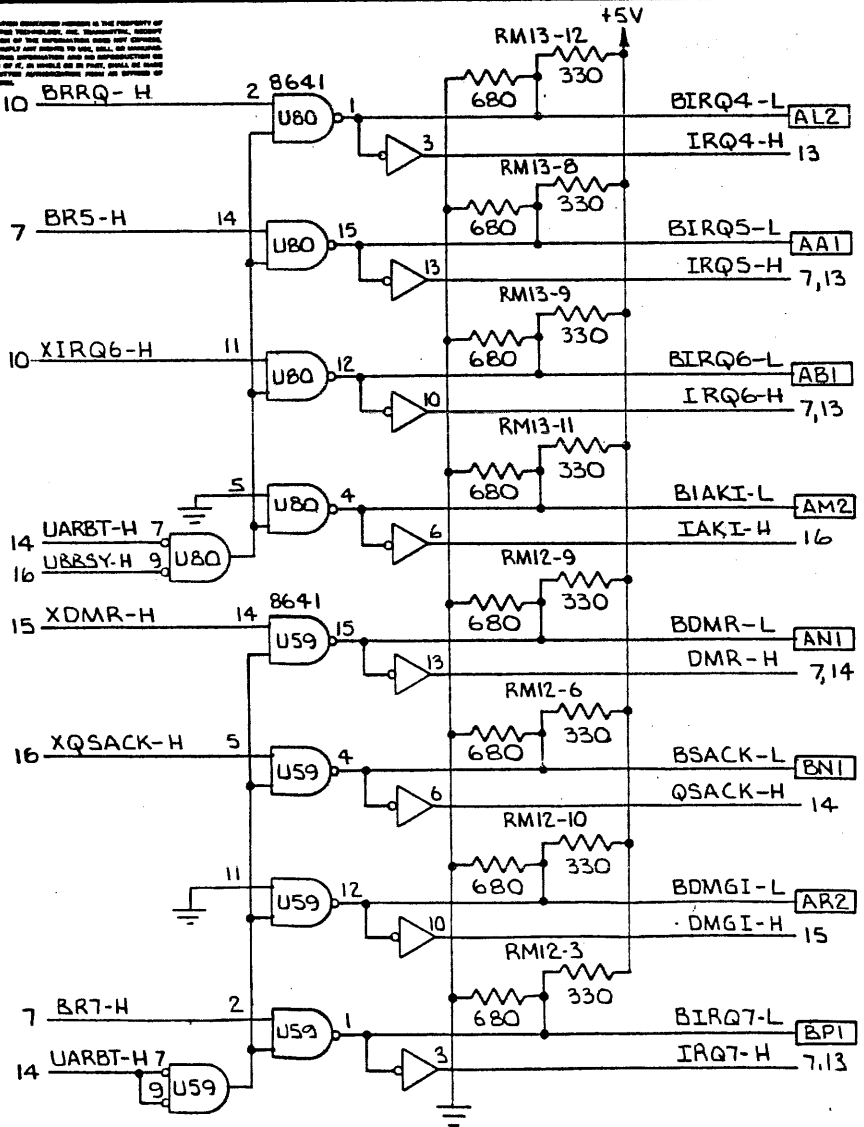
SHT	1	B	2	SHT
6	BDCOK-H	A	+5V	1
6	BPOK-H	B	-12V	
		C	GND	1
		D	+12V	
		E	BDAL02-L	5
		F	BDAL03-L	5
		H	BDAL04-L	5
1	GND	J	BDAL05-L	5
	MSPARE-B	K	BDAL06-L	5
	MSPARE-B	L	BDAL07-L	5
1	GND	M	BDAL08-L	5
4	BSACK-L	N	BDAL09-L	5
4	BIRQ7-L	P	BDAL10-L	5
6	BEVNT-L	R	BDAL11-L	5
	PSPARE-4	S	BDAL12-L	5
1	GND	T	BDAL13-L	5
	PSPARE-2	U	BDAL14-L	5
1	+5V	V	BDAL15-L	5

SHT	1	A	2	SHT
4	BIRQ5-L	A	+5V	1
4	BIRQ6-L	B	-12V	
6	BDAL16-L	C	GND	1
6	BDAL17-L	D	+12V	
		E	BDOUT-L	4
		F	BRPLY-L	6
		H	BDIN-L	4
1	GND	J	BSYNC-L	4
	MSPARE-A	K	BWTBT-L	4
	MSPARE-B	L	BIRQ4-L	4
1	GND	M	BIAKI-L	4
4	BDMR-L	N	BIAKO-L	6
6	BHALT-L	P	BBS7-L	6
6	BREF-L	R	BDMGI-L	4
	+12B	S	BDMGO-L	4
1	GND	T	BINIT-L	4
	PSPARE-1	U	BDAL00-L	5
	+5B	V	BDAL01-L	5

Q - BUS

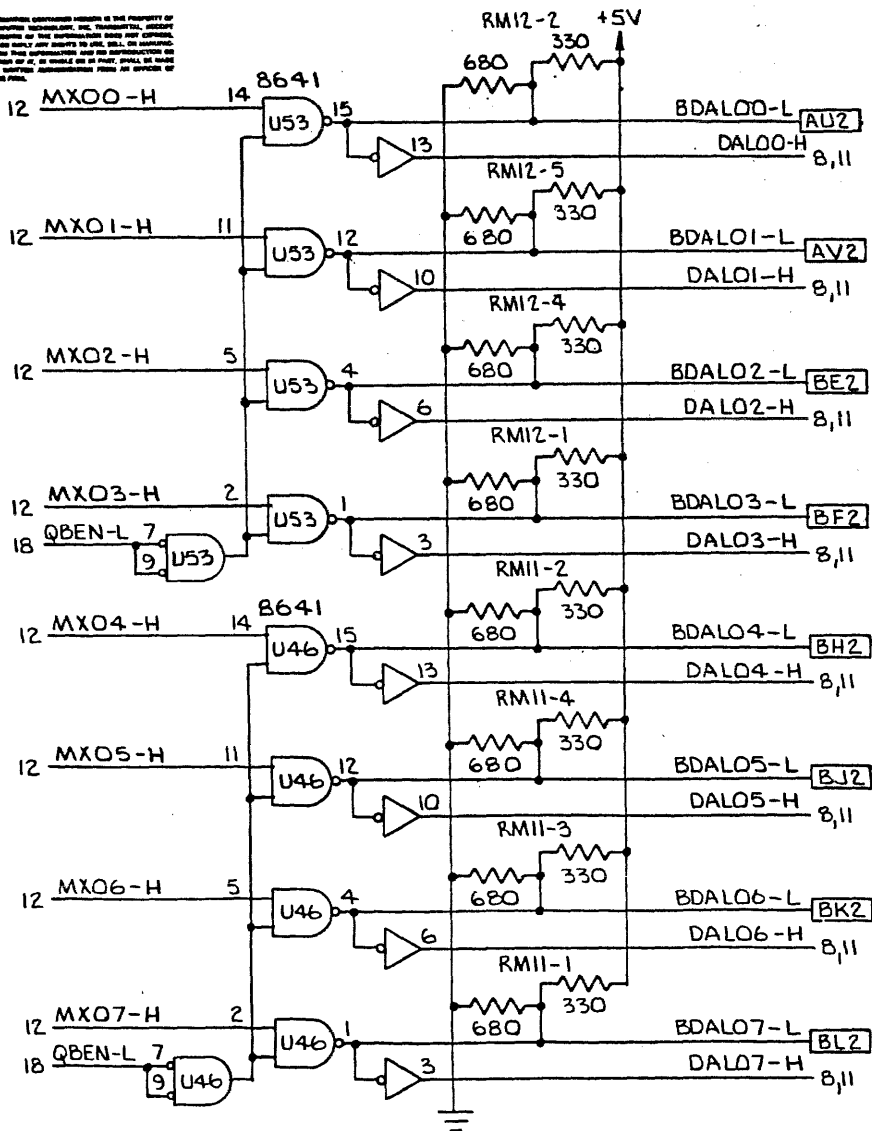
SCALE	SIZE	DRAWING NO.
	B	10067003
DO NOT SCALE DRAWING		SHEET 3 OF 19

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 BISHOP GRAPHICS, INC. INFORMATION, DESIGN,  
 AND PATENT RIGHTS ARE RESERVED. NO PART OF THIS  
 DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED  
 IN ANY FORM OR BY ANY MEANS, ELECTRONIC,  
 MECHANICAL, PHOTOCOPYING, RECORDING, OR BY  
 ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM,  
 WITHOUT PERMISSION IN WRITING FROM BISHOP  
 GRAPHICS, INC.

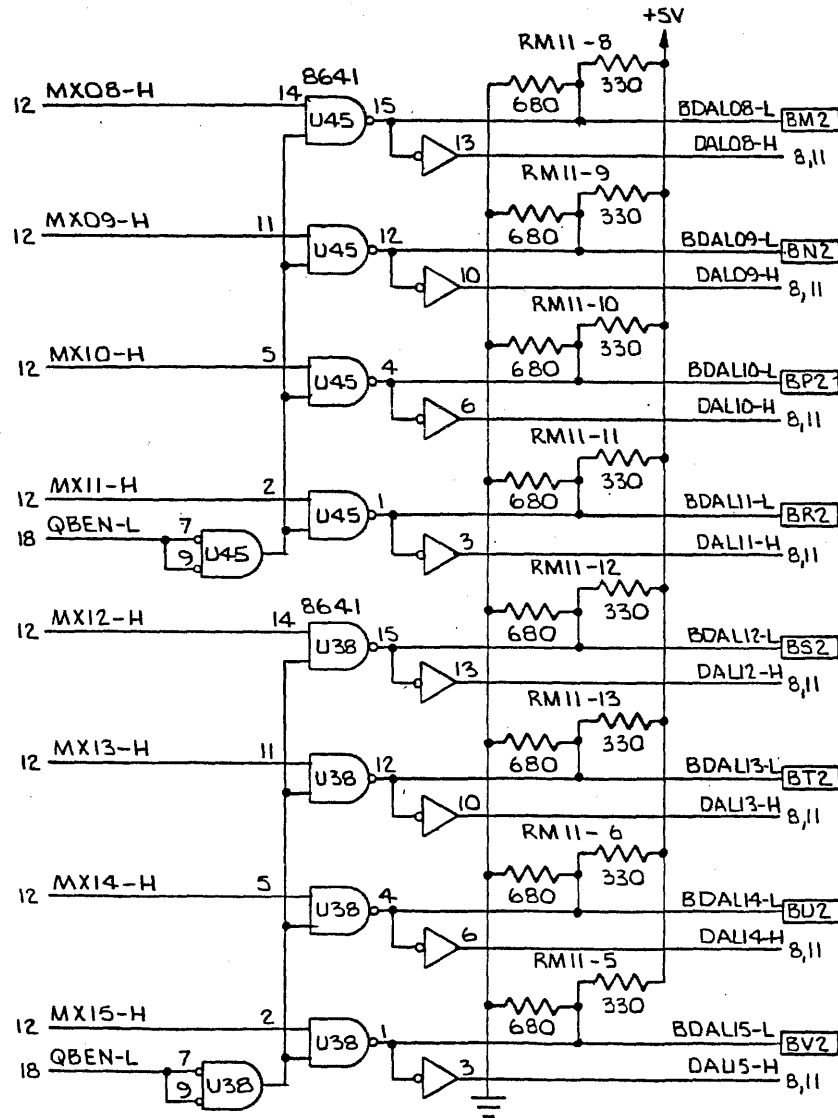


SCALE	SIZE	DRAWING NO.
	B	10067003
DO NOT SCALE DRAWING		SHEET 4 OF 19

THIS INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 BISHOP GRAPHICS/ACCUPRESS, INC. TRANSMISSION, REPRODUCTION,  
 OR ANY USE OF THE INFORMATION HEREIN FOR OTHER THAN THE  
 ORIGINAL USE IS STRICTLY PROHIBITED. ANY REPRODUCTION OR  
 TRANSMISSION OF THIS INFORMATION IN ANY FORM OR BY ANY  
 MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING,  
 RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL  
 SYSTEM, IS PROHIBITED WITHOUT THE WRITTEN PERMISSION OF  
 BISHOP GRAPHICS/ACCUPRESS, INC.



LOW BYTE - Q BUS TRANSCEIVERS

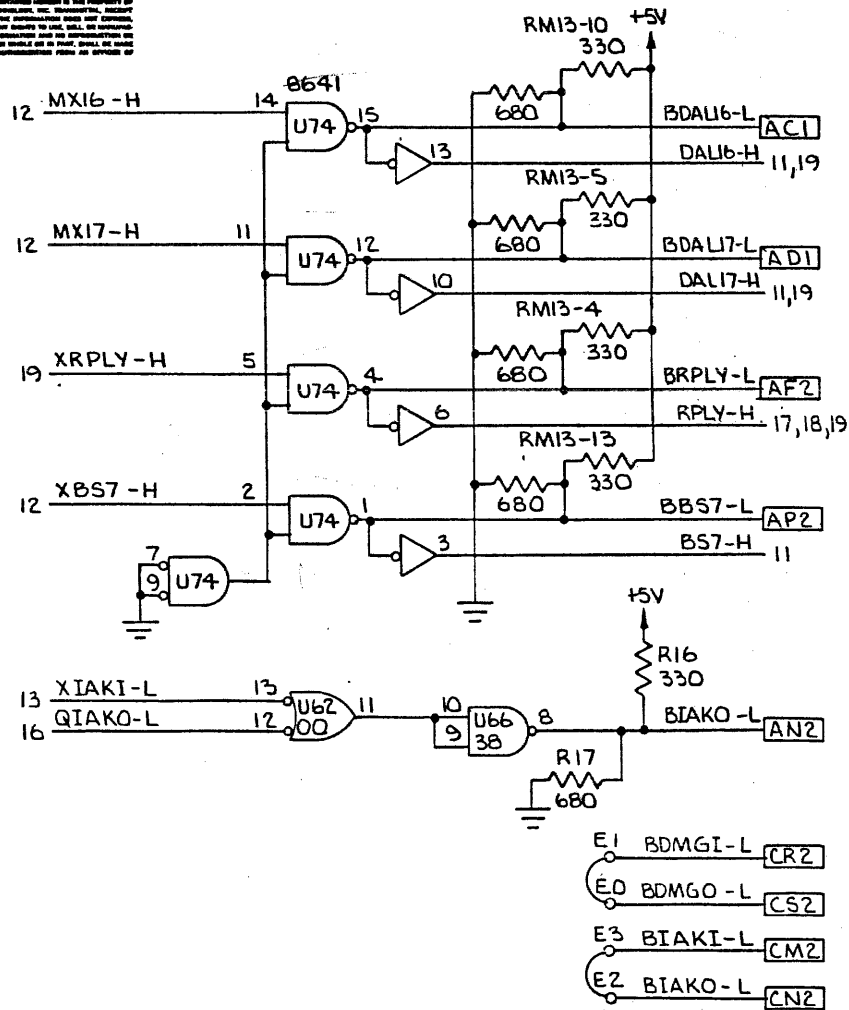


UPPER BYTE -

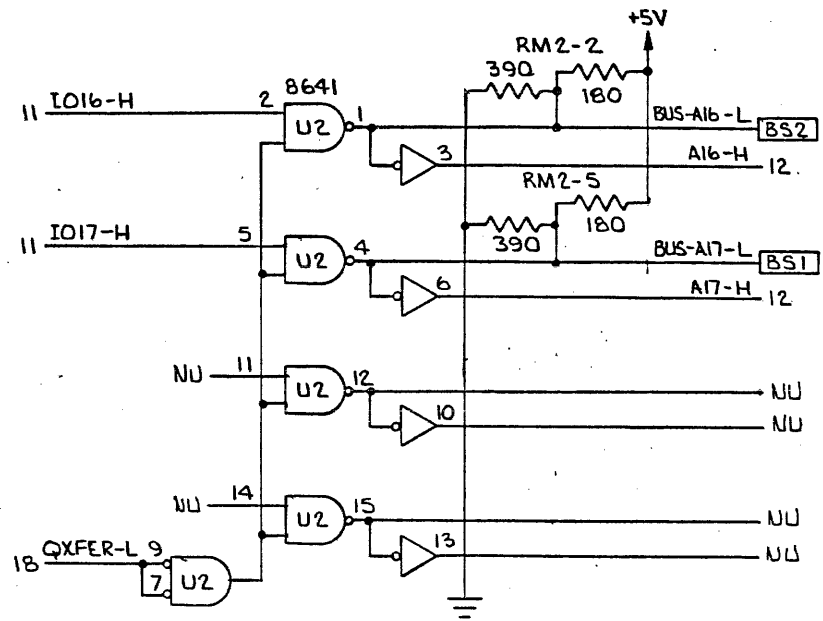
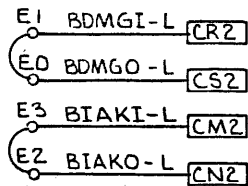
Q BUS TRANSCEIVERS

SCALE	SIZE	DRAWING NO.
	B	10067003
DO NOT SCALE DRAWING		SHEET 5 OF 19

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF ARL ENGINEERING TECHNOLOGY, INC. REPRODUCTION OR TRANSMISSION OF THIS INFORMATION IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, IS PROHIBITED WITHOUT THE WRITTEN PERMISSION OF ARL ENGINEERING TECHNOLOGY, INC.

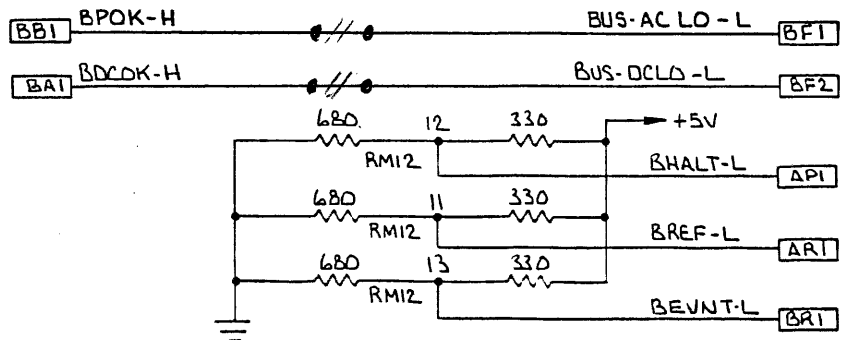


Q-BUS TRANSCEIVERS



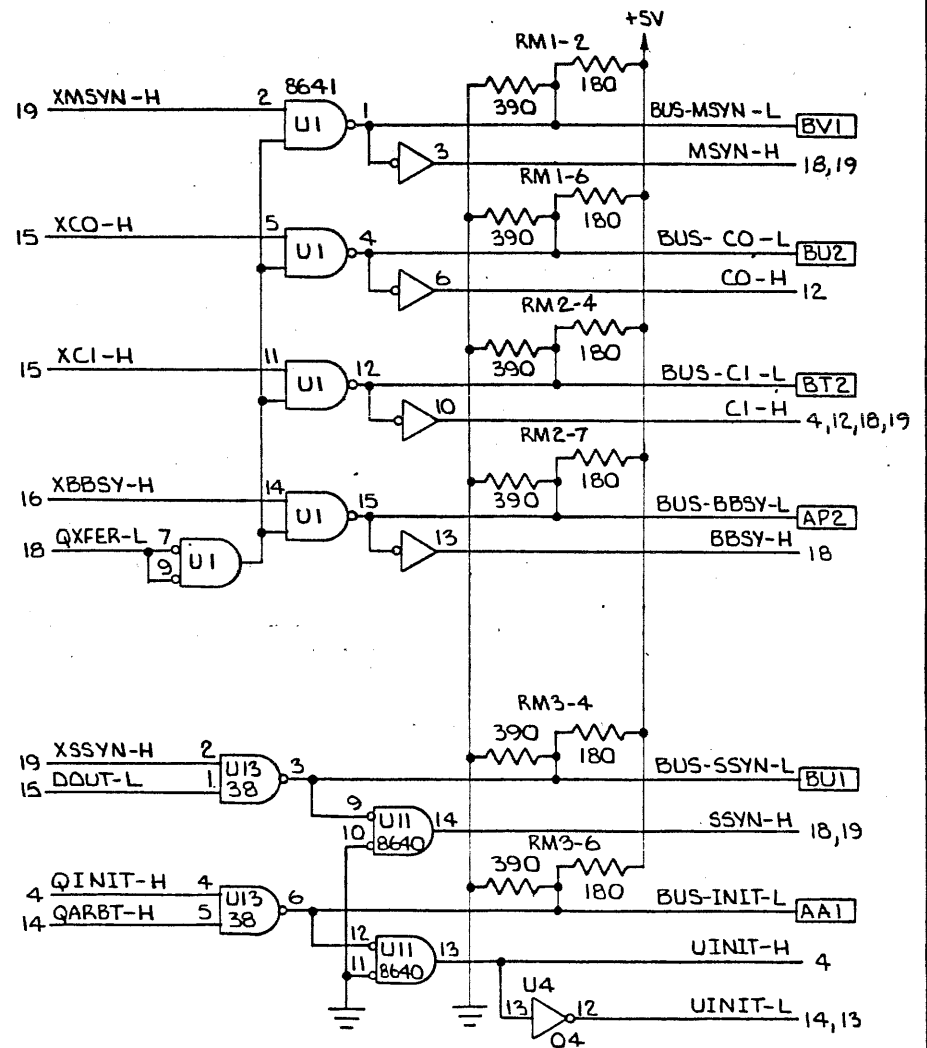
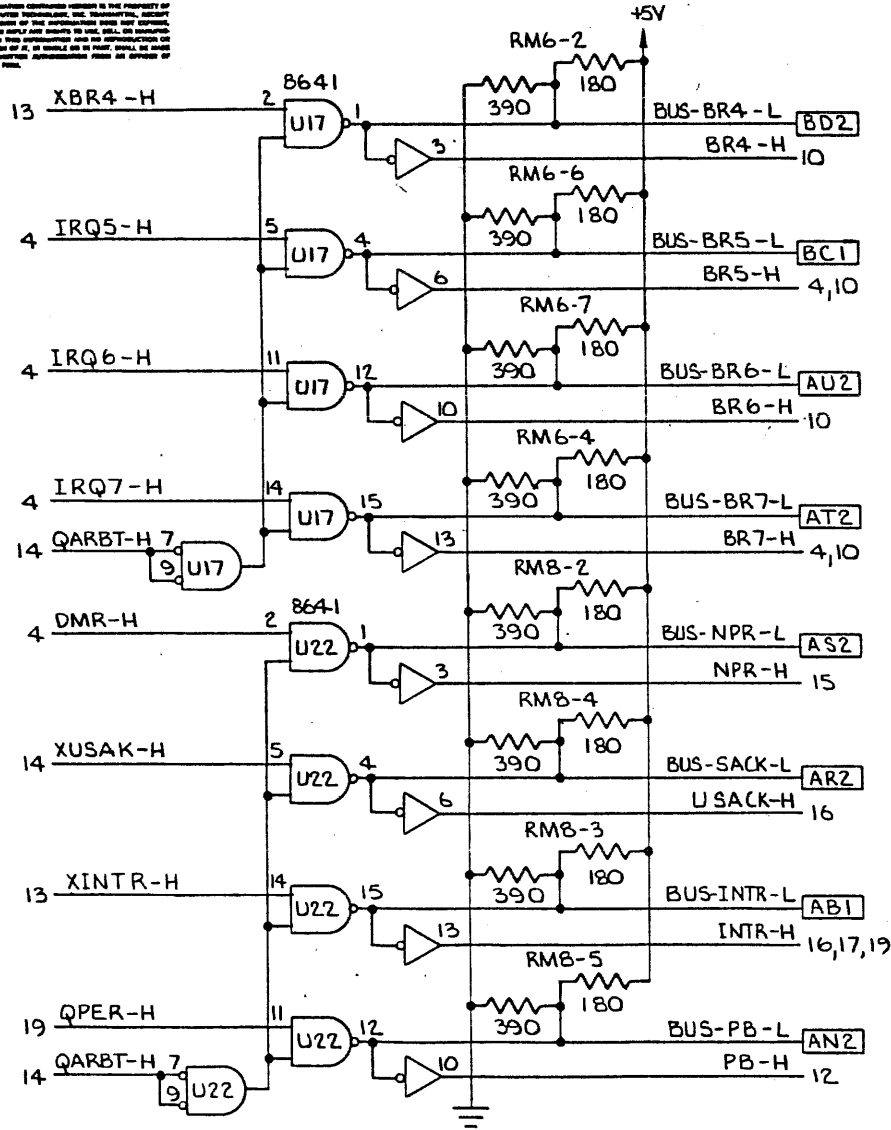
UNIBUS - TRANSCEIVERS

U53



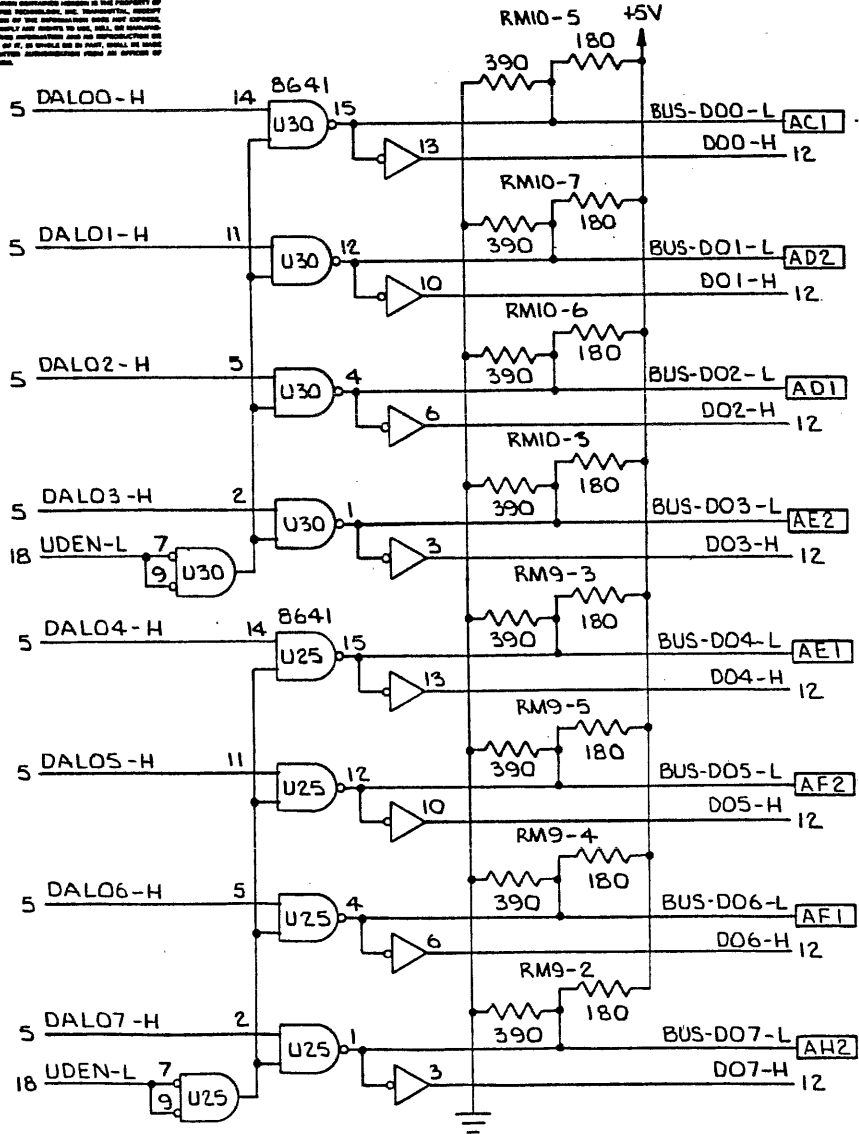
SCALE	SIZE	DRAWING NO.
	B	10067003
DO NOT SCALE DRAWING		SHEET 6 OF 19

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 AND IS LOANED TO YOU BY THE MANUFACTURER, SUBJECT  
 TO THE TERMS AND CONDITIONS OF THE LICENSE AGREEMENT.  
 THIS DRAWING IS NOT TO BE REPRODUCED OR TRANSMITTED  
 IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL,  
 INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION  
 STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING  
 FROM THE MANUFACTURER.

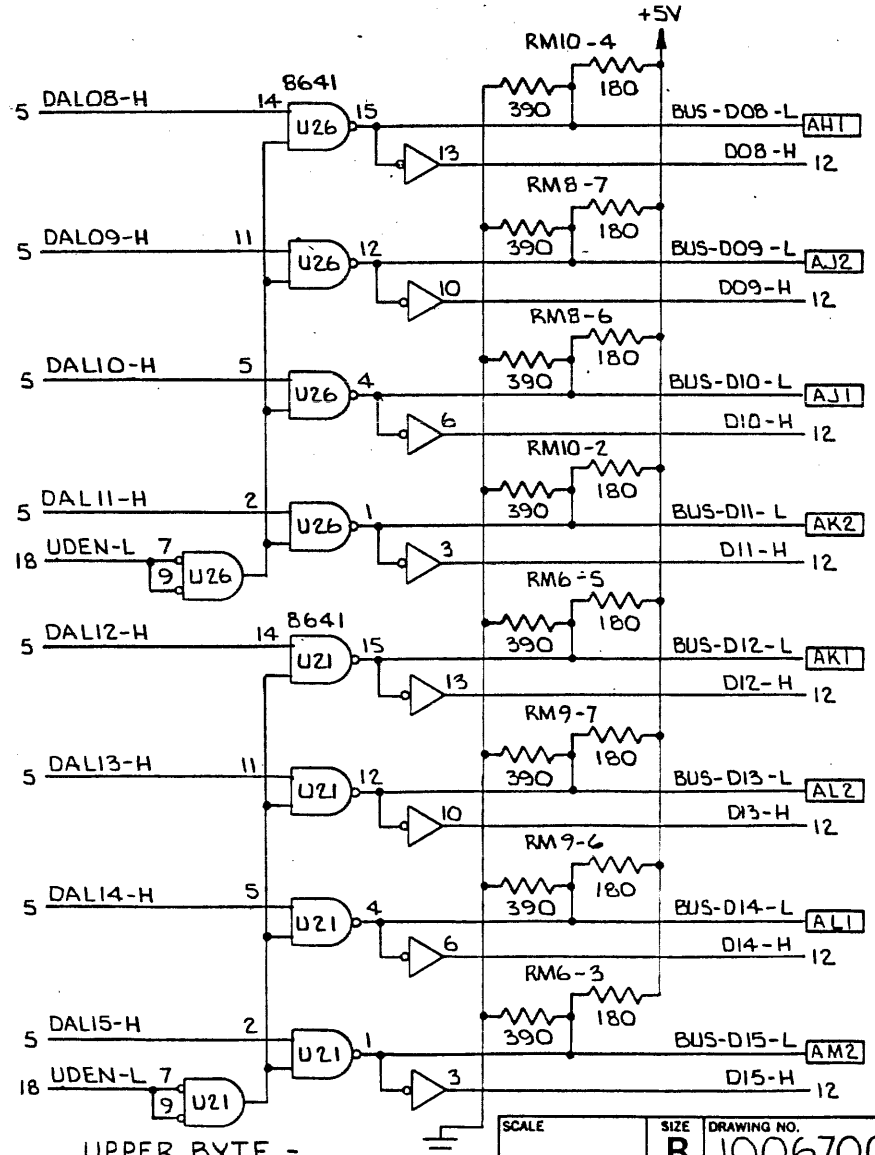


SCALE	SIZE	DRAWING NO.
	<b>B</b>	<b>10067003</b>
DO NOT SCALE DRAWING		SHEET 7 OF 19

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF AND IS LOANED TO YOU BY THE UNITED STATES GOVERNMENT. IT IS TO BE USED ONLY FOR THE PURPOSES AUTHORIZED BY THE CONTRACT. IT IS TO BE RETURNED TO THE SOURCE OF ORIGIN. IT IS TO BE DESTROYED BY YOU ON THE DATE SPECIFIED IN THE CONTRACT. IT IS TO BE DESTROYED BY YOU ON THE DATE SPECIFIED IN THE CONTRACT. IT IS TO BE DESTROYED BY YOU ON THE DATE SPECIFIED IN THE CONTRACT.



LOW BYTE - UNIBUS DATA TRANSCEIVERS

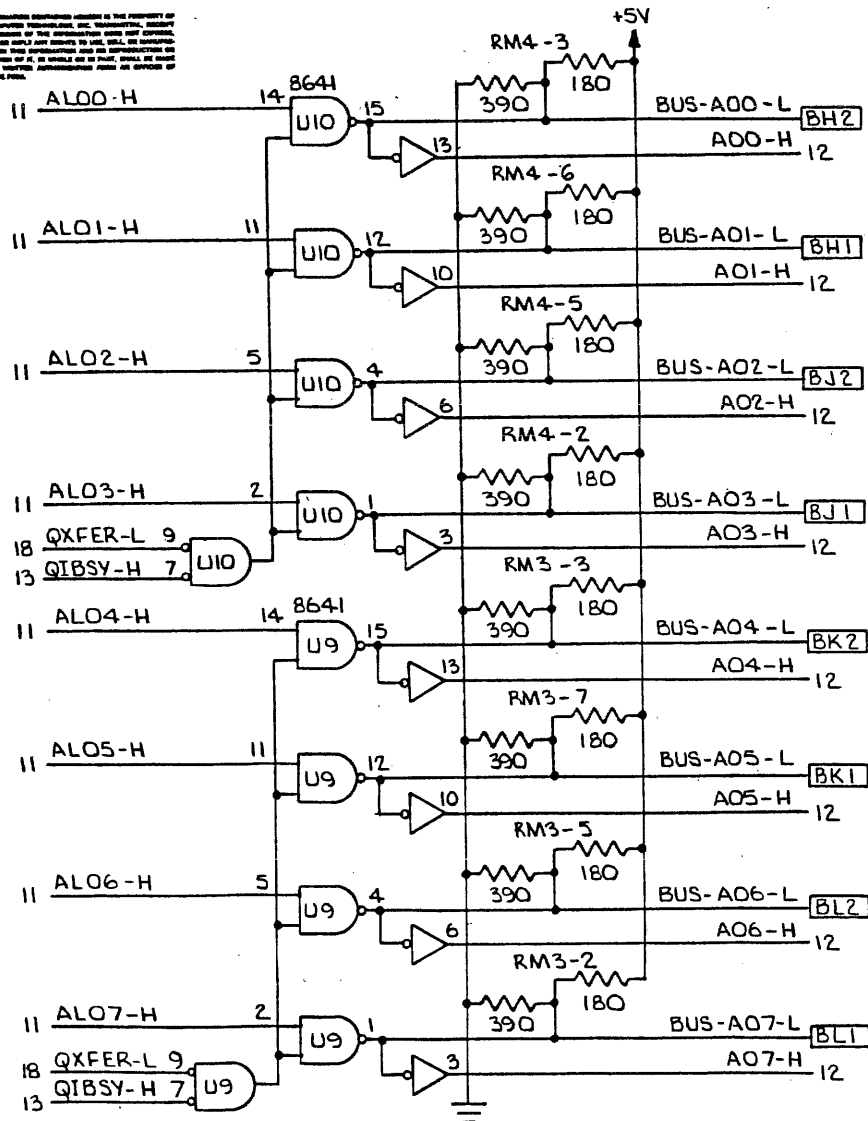


UPPER BYTE - UNIBUS DATA TRANSCEIVERS

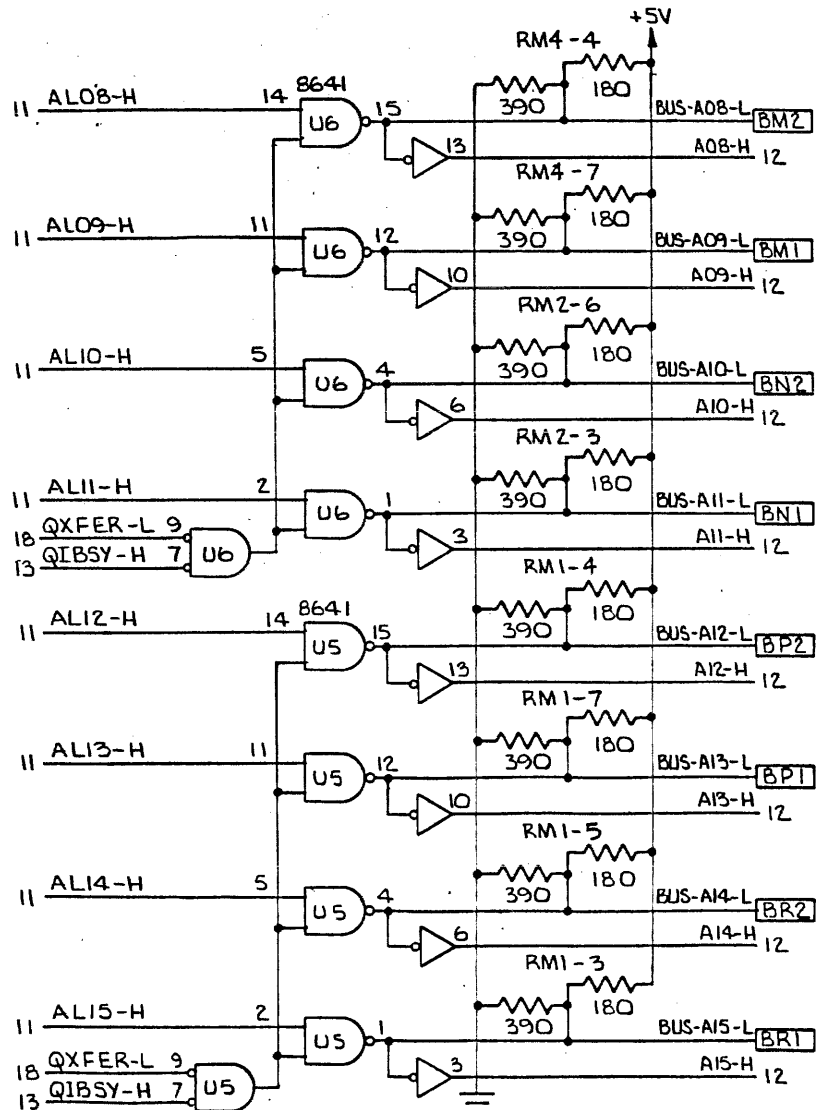
SCALE	SIZE	DRAWING NO.
	B	10067003
DO NOT SCALE DRAWING		SHEET 8 OF 19



THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF



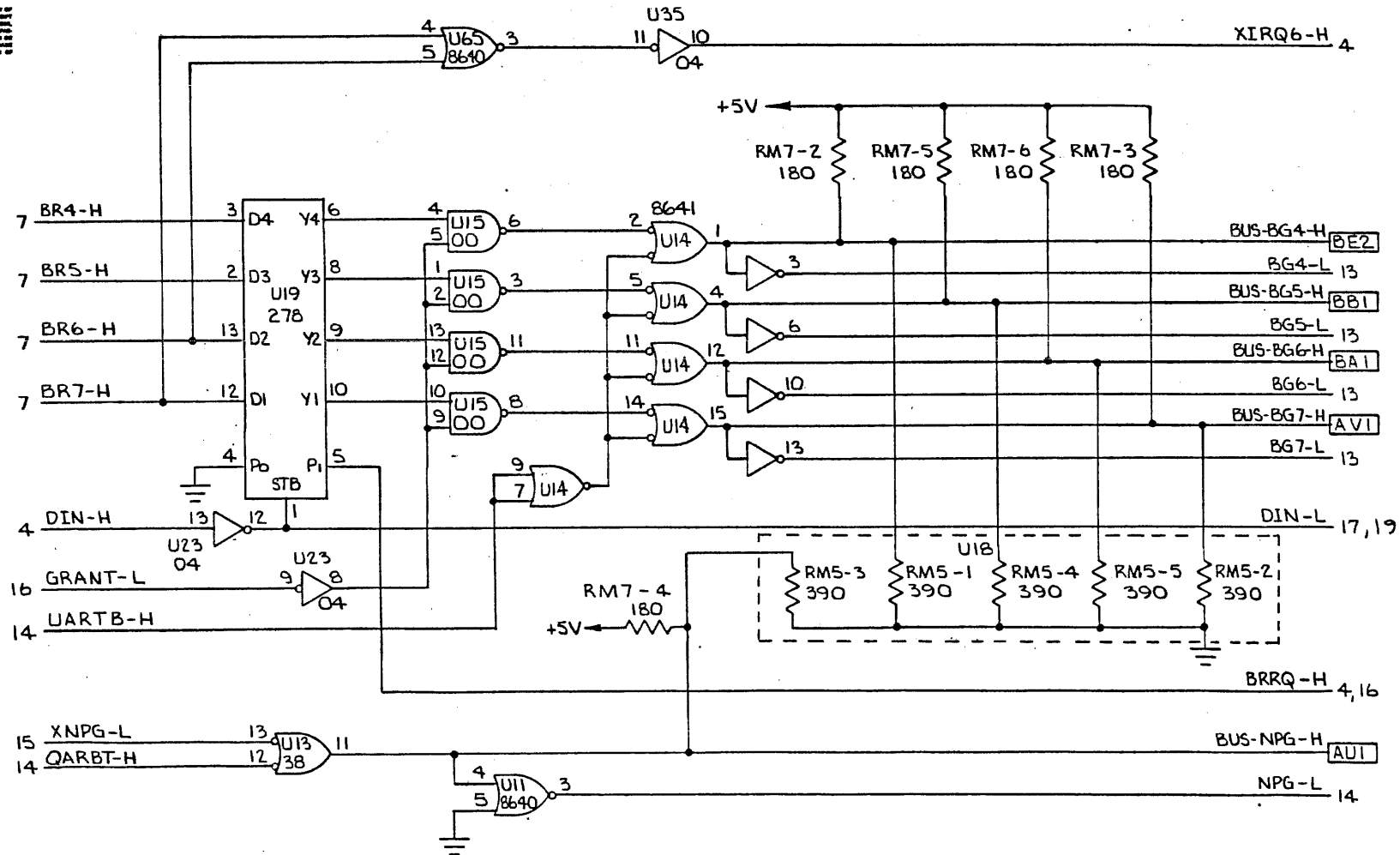
**LOW BYTE - UNIBUS ADDRESS TRANSCEIVERS**



**HIGH BYTE - UNIBUS ADDRESS TRANSCEIVERS**

SCALE	SIZE	DRAWING NO.
	<b>B</b>	10067003
DO NOT SCALE DRAWING		SHEET 9 OF 19

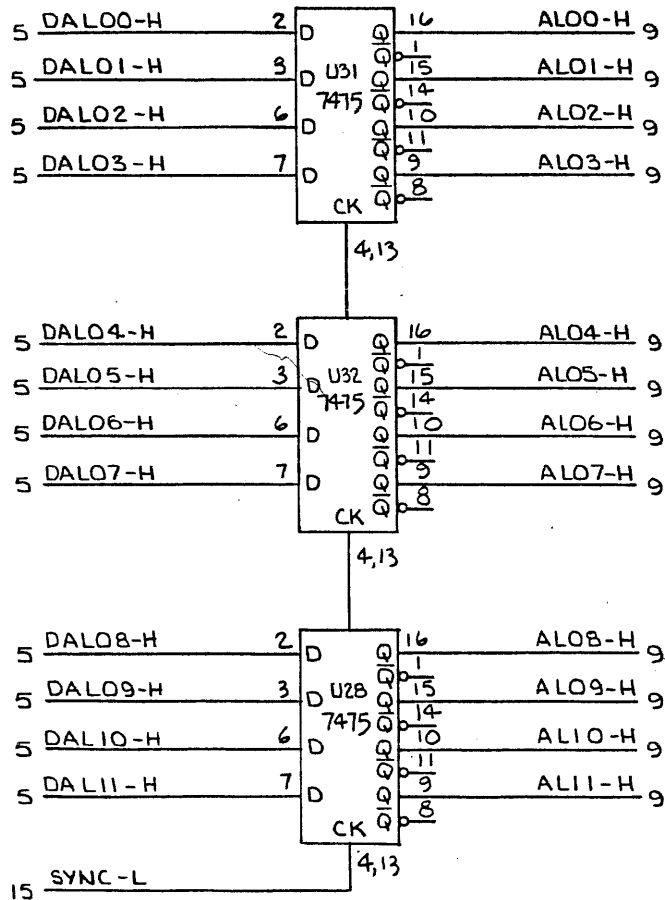
THIS DOCUMENT CONTAINS UNCLASSIFIED INFORMATION AND IS THE PROPERTY OF THE UNITED STATES GOVERNMENT. IT IS LOANED TO YOU BY THE NATIONAL ARCHIVES AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. THIS DOCUMENT IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE. DATE OF DECLASSIFICATION IS INDEFINITE.



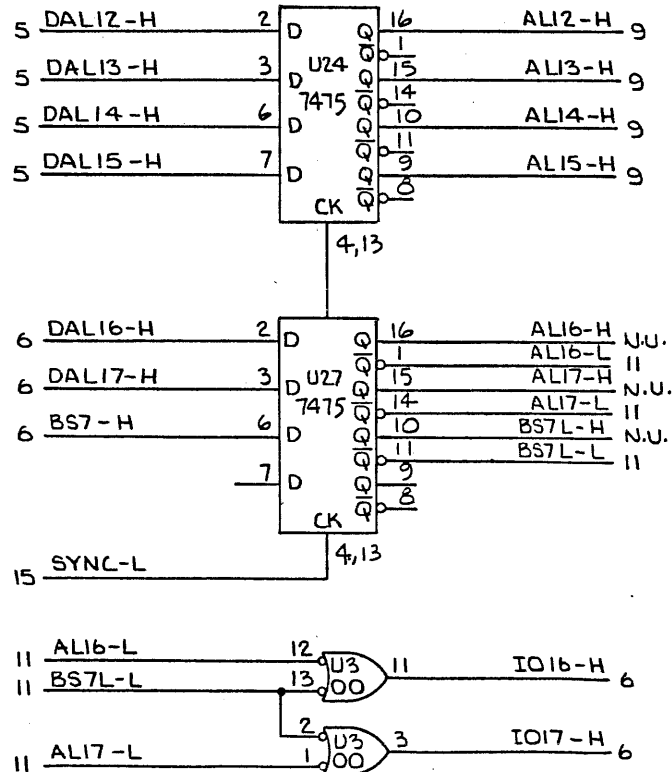
UNIBUS INTERRUPT PRIORITY - Q-BUS ARBITRATOR

SCALE	SIZE	DRAWING NO.
	B	10067003
DO NOT SCALE DRAWING		SHEET 10 OF 19

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 BUSHNOR GRAPHICS, INC. INFORMATION, HISTORY  
 OR ASSIGNMENT OF THE INFORMATION SHOWN HEREON,  
 LOCATED, OR NOT TO BE OPENED TO THE PUBLIC, OR  
 THIS DRAWING IS UNCLASSIFIED AND IS AVAILABLE TO THE  
 PUBLIC. IT IS AVAILABLE TO THE PUBLIC, AND IS NOT  
 SUBJECT TO EXPORT CONTROL AS A RESULT OF THE  
 EARLIER DATE.



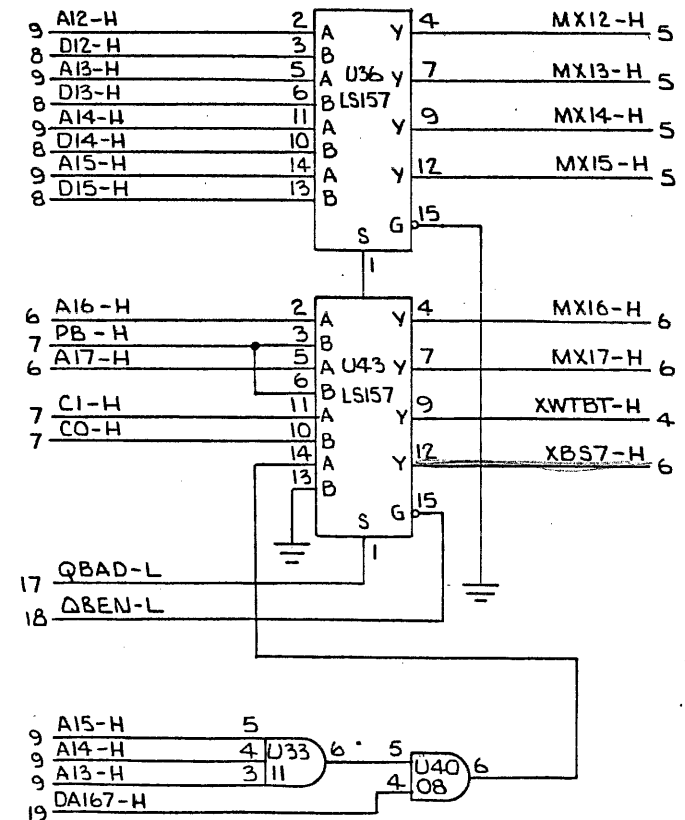
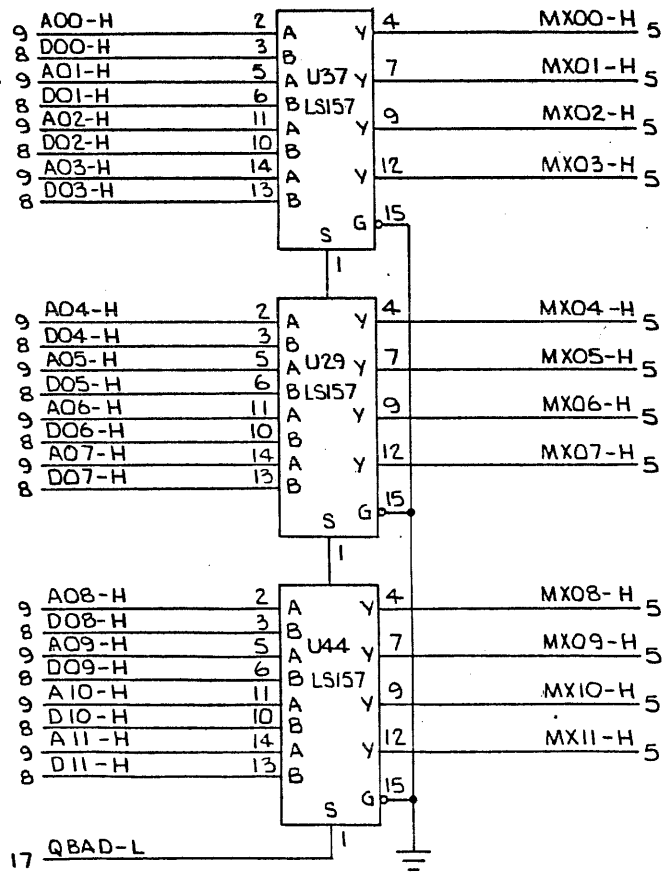
LOWER ADDRESS LATCH



UPPER ADDRESS LATCH

SCALE	SIZE	DRAWING NO.
	B	10067003
DO NOT SCALE DRAWING		SHEET 11 OF 19

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 AND IS LOANED TO YOU BY THE CONTRACTING OFFICE. IT IS TO BE USED ONLY FOR THE PURPOSES  
 FOR WHICH IT IS LOANED AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY  
 MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION  
 STORAGE AND RETRIEVAL SYSTEM. THIS DOCUMENT IS UNCLASSIFIED EXCEPT WHERE SHOWN  
 OTHERWISE.

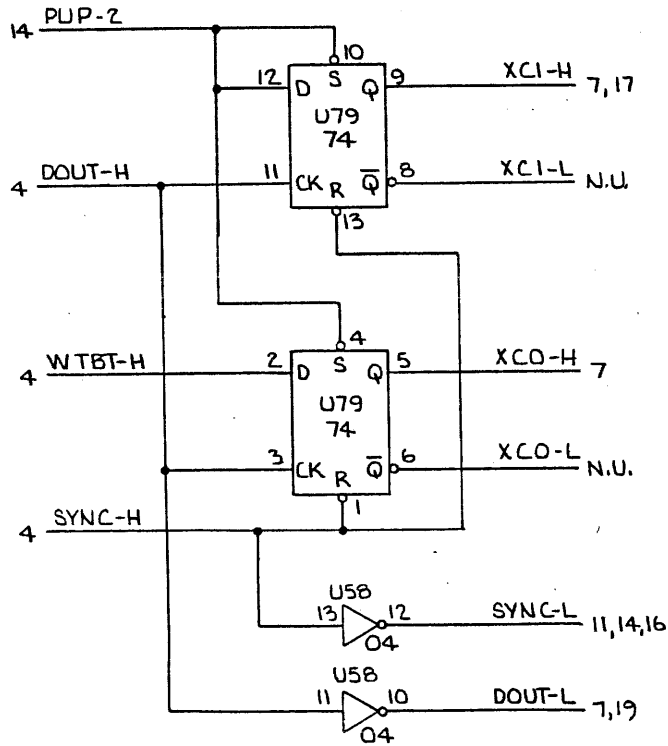


Q - BUS MUX

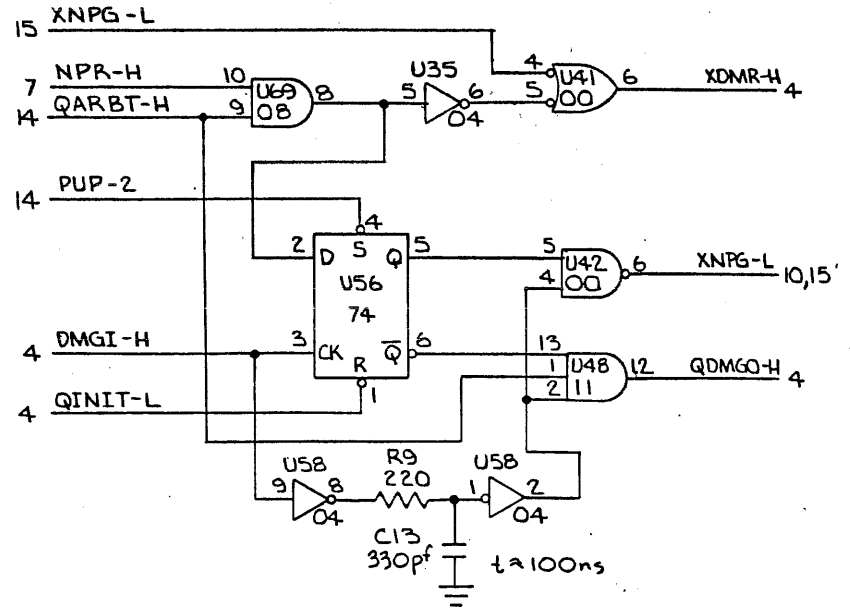




THIS DOCUMENT CONTAINS UNCLASSIFIED INFORMATION AND IS THE PROPERTY OF  
 THE COMMUNICATIONS ELECTRONICS LABORATORY, MILITARY AERONAUTICAL RESEARCH  
 DEVELOPMENT AND TEST CENTER, WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433-3961.  
 THIS DOCUMENT IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE. IT IS TO BE  
 CONTROLLED AS UNCLASSIFIED INFORMATION AND IS TO BE RELEASED TO THE PUBLIC  
 WITHOUT LIMITATION. THIS DOCUMENT IS UNCLASSIFIED EXCEPT WHERE SHOWN  
 OTHERWISE.



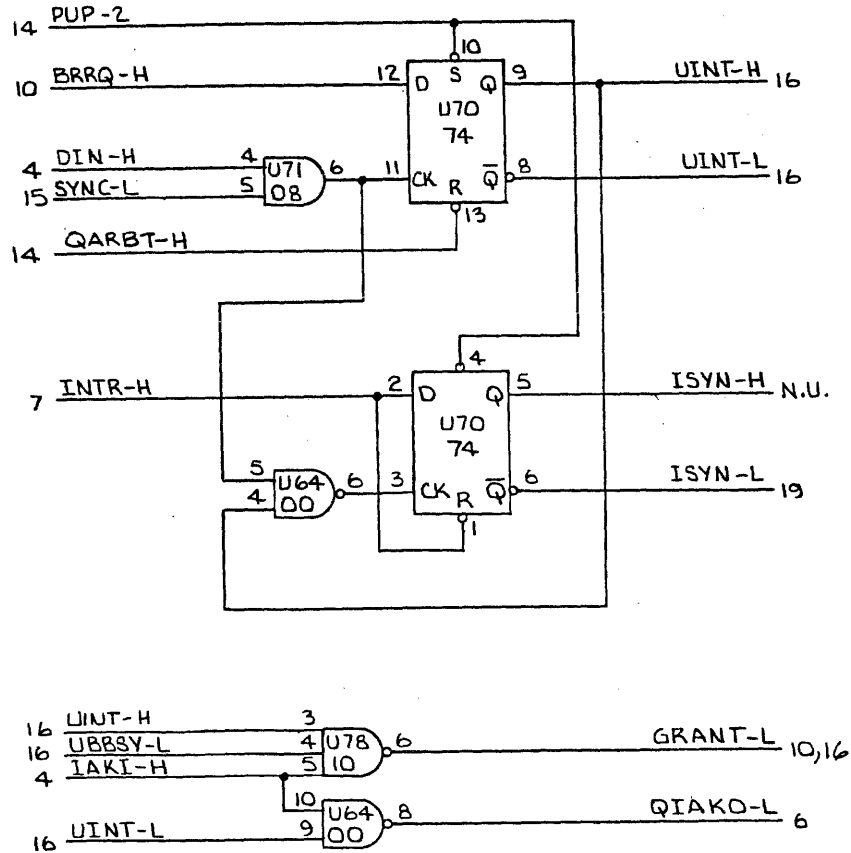
UNIBUS CO AND CI-Q-BUS ARBITRATOR



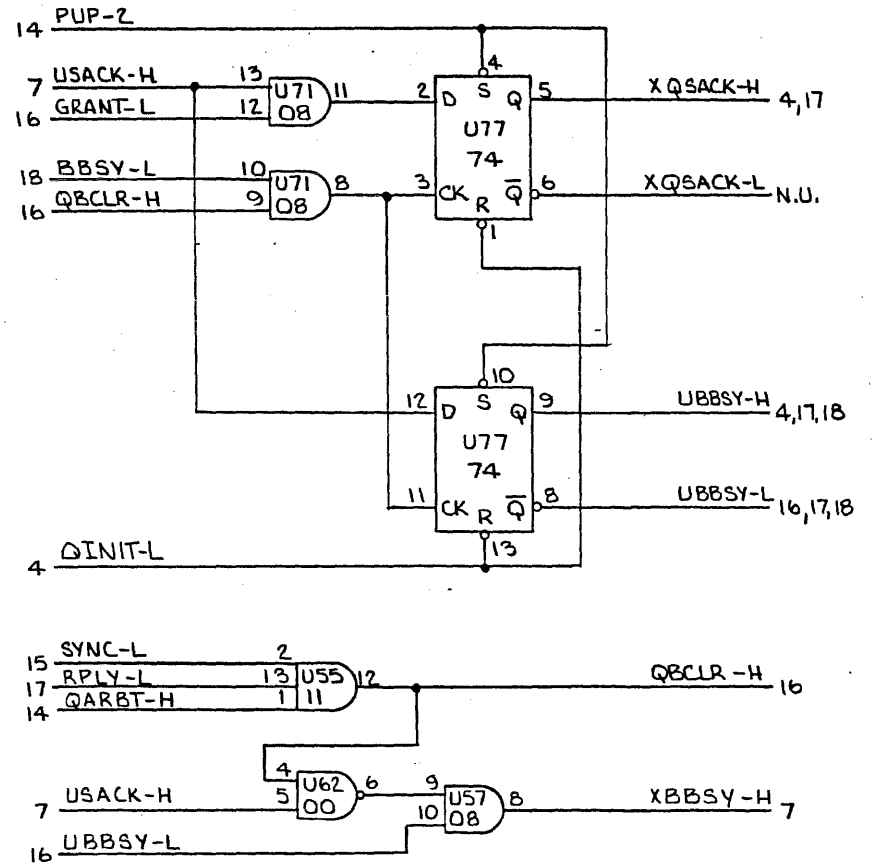
NPG-Q BUS ARBITRATOR

SCALE	SIZE	DRAWING NO.
	<b>B</b>	<b>10067003</b>
DO NOT SCALE DRAWING		SHEET 15 OF 19

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF



INTERRUPT CONTROL - Q BUS ARBITRATOR



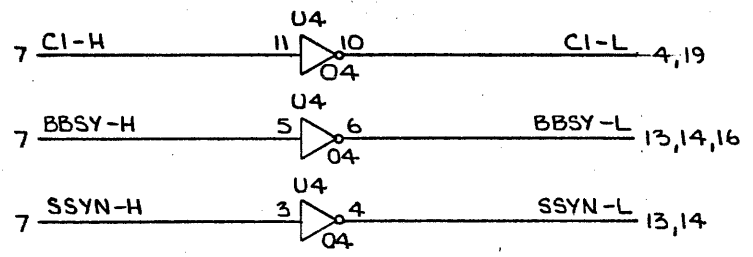
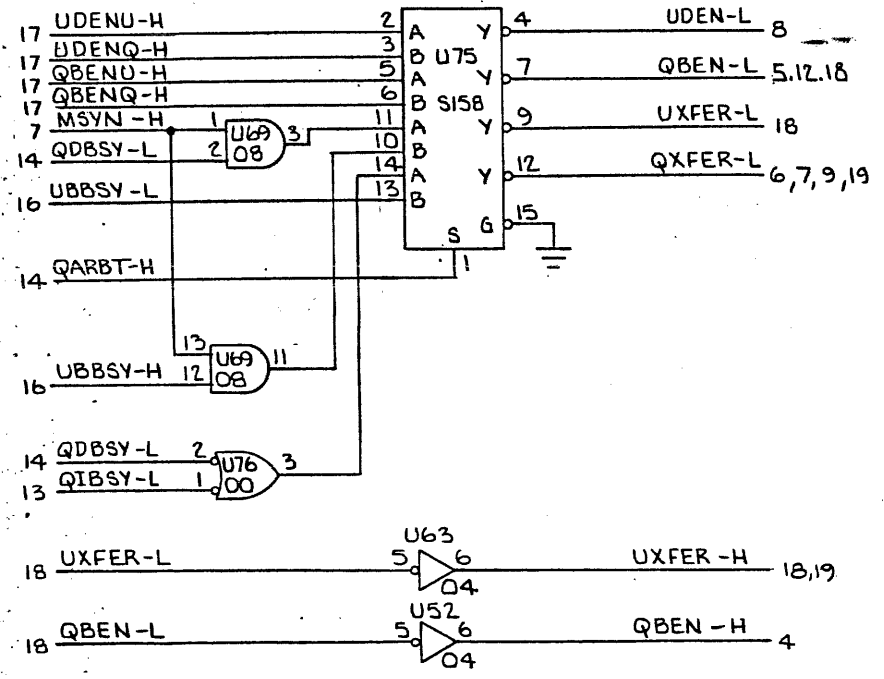
BUS CONTROL - Q BUS ARBITRATOR

SCALE	SIZE	DRAWING NO.
	B	10067003
DO NOT SCALE DRAWING		

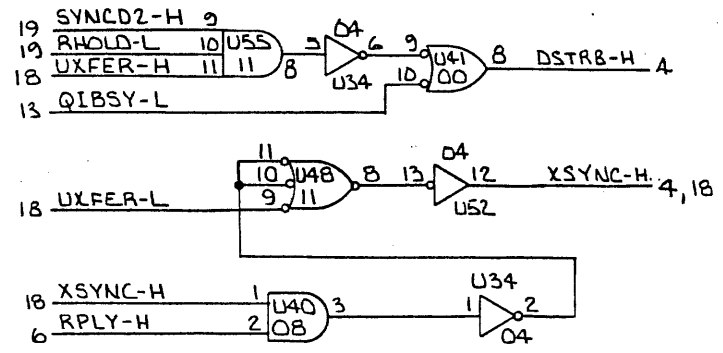




ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 THE UNITED STATES GOVERNMENT AND IS LOANED TO YOUR AGENCY  
 OF PURCHASE BY THE EXECUTIVE AND NOT AGRANT. IT IS TO BE  
 RETURNED TO THE OFFICE OF ORIGIN AND NOT TO BE REPRODUCED OR  
 TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR  
 MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY  
 INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION  
 IN WRITING FROM THE DIRECTOR, ARPA, WASH. DC 20330.

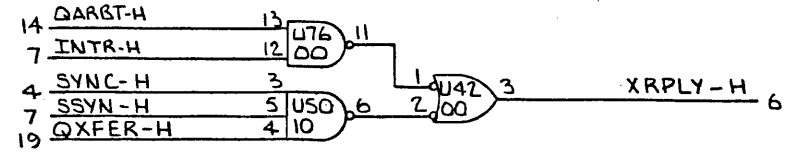
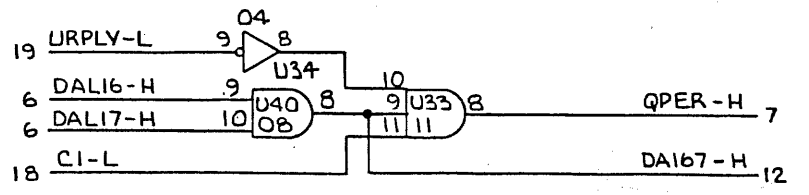
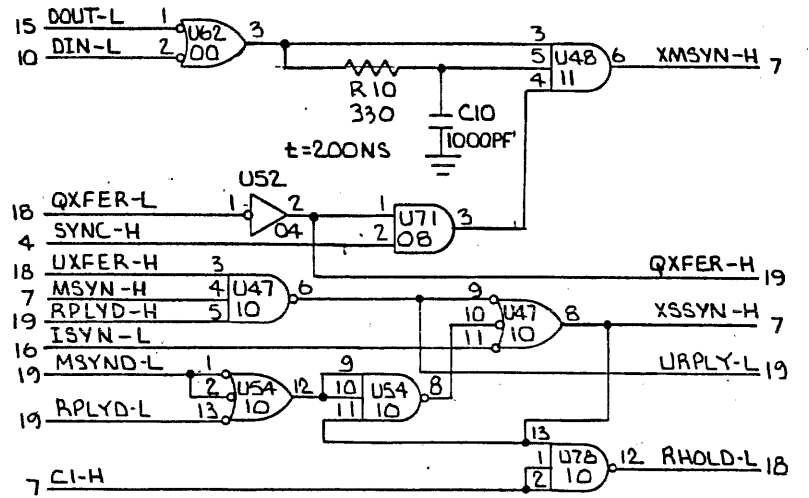
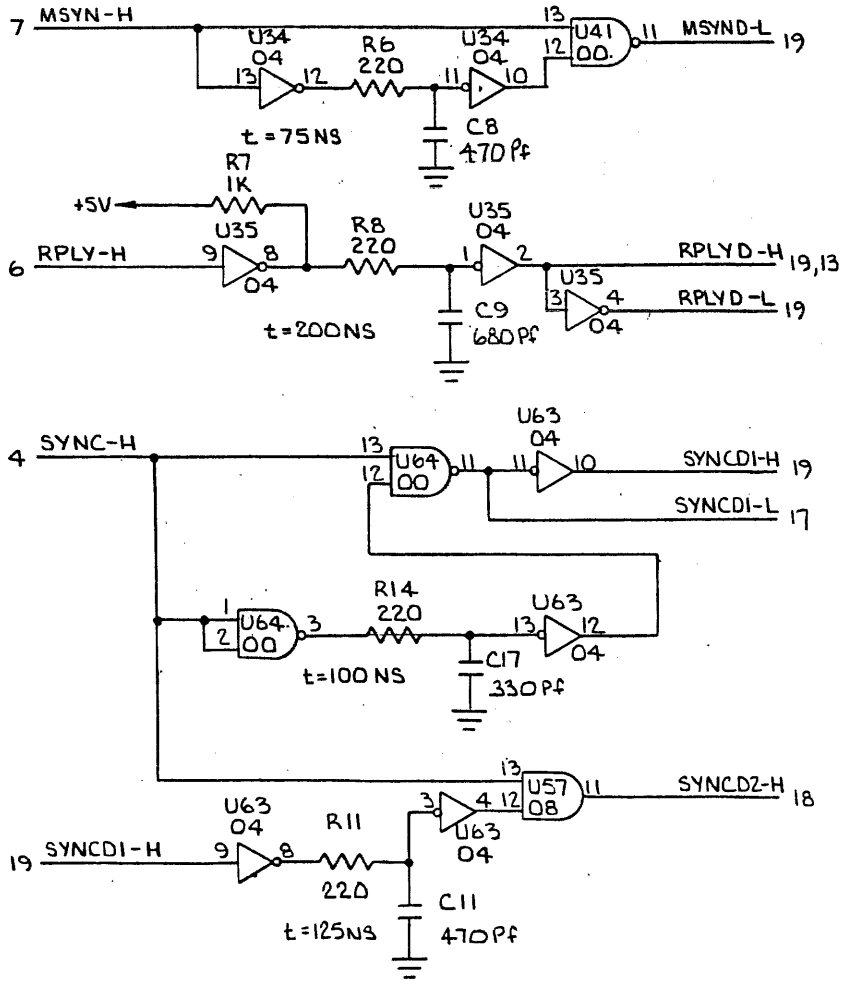


UNIBUS ADDRESS ENABLE



SCALE	SIZE <b>B</b>	DRAWING NO. <b>10067003</b>
DO NOT SCALE DRAWING		SHEET 18 OF 19

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF  
 JACOBS ENGINEERING CORPORATION, INC. MEMPHIS, TENNESSEE.  
 NO PART OF THIS INFORMATION IS TO BE REPRODUCED,  
 COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS,  
 ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING,  
 RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL  
 SYSTEM, WITHOUT PERMISSION IN WRITING FROM JACOBS  
 ENGINEERING CORPORATION, INC.



SCALE	SIZE	DRAWING NO.
	B	10067003
DO NOT SCALE DRAWING		SHEET 13 OF 19