

Location Test Proven #1

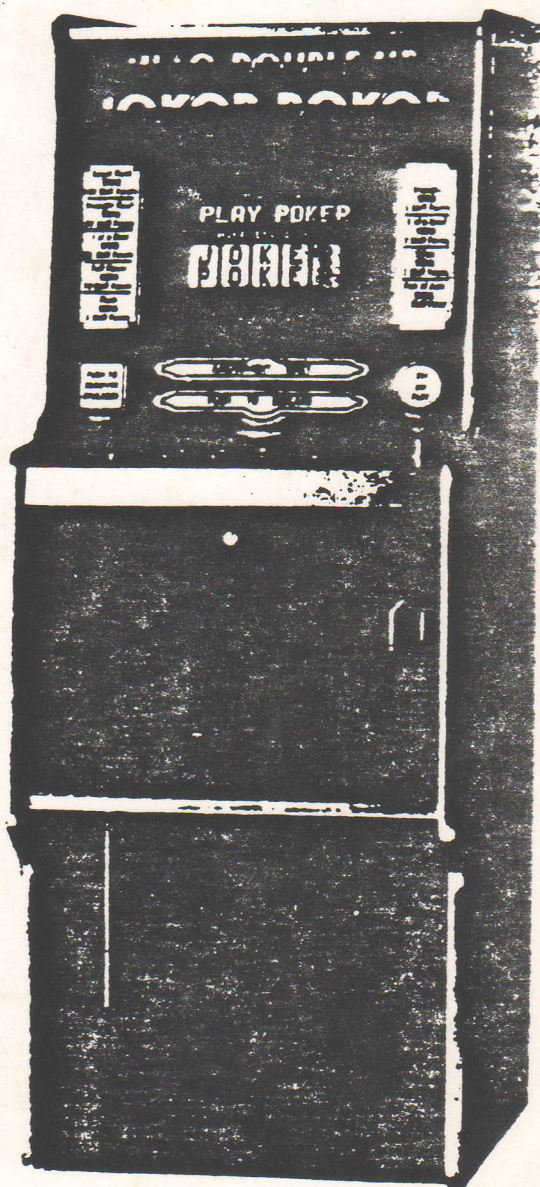
**THE NEW KRAMER MODEL II
HI-LO DOUBLE UP JOKER POKER
VIDEO AMUSEMENT
GAME SURPASSES
ALL VIDEO CARD
GAME COLLECTIONS**

KRAMERGAME

All Kramer Model II games offer inexpensive conversion to regular Draw Poker, Bonus 21, Black Jack, Super Dominoes, Joker Poker plus others.

FEATURES:

- RELIABILITY • ERROR DETECTION • PLAYER APPEAL • ACCOUNTING
- STATE OF THE ART ENGINEERING • FACTORY & DISTRIBUTOR BACK-UP
- NEW TROUBLE FREE ELECTRONIC COIN ACCEPTOR



M. KRAMER MANUFACTURING CO., INC.
1100 Towbin Ave., Lakewood, N.J. 08701
201-367-7810 Out of State 800-631-2126

For Amusement Only - The operation of these games and the features therein may be subject to various state and local laws or regulations. It is not intended herein to solicit the sale of such games in any jurisdiction wherein the same may not be lawfully sold or operated.



Model II Customer Options

To obtain the following options you will be using two 8 Pin Dip Switchs. U30 Dip Switch is located on the main logic card at position U30. OPT Dip Switch is located on the wall near the main logic card connector, to turn the Dip Switch on, you slide the switch to the on position.

OPT SW1 ON = Single coin
OPT SW2 ON = No attract message
OPT SW3 ON = Silent knock off
OPT SW6 ON = Ticket mode
OPT SW7 ON = Ticket mode

U30 Switch options for Hi-Lo, Poker and Super Domino

U30 SW1	U30 SW2	U30 SW3	U30 SW4	GAME DESCRIPTION
OFF	-	-	-	Normal game
ON	-	-	-	All front panel lamps light up to test the light bulbs. If you hit each switch you will hear a tone which tells you the switch is good.
OFF	OFF	OFF	-	No jokers or wild cards
OFF	ON	OFF	-	Bet 4 or more to get jokers in the deck
OFF	OFF	ON	-	Bet 8 or more to get jokers in the deck
OFF	ON	ON	-	Jokers all the time in the deck
OFF	-	-	OFF	In Hi-Lo slow flasher, in poker 5 card discard
OFF	-	-	ON	In Hi-Lo fast flasher, in poker 3 card discard

Note 1 = In down card or non-flasher Hi-Lo, U30 SW4 controls amount of cards allowed to discard.

Note 2 = U30 Dip SW2,3 and 4, have a different meaning in Black Jack. Check the Black Jack switch setting sheet.

For Amusement Only - The operation of these games and the features therein may be subject to various state and local laws or regulations. It is not intended herein to solicit the sale of such games in any jurisdiction wherein the same may not be lawfully sold or operated

Find No.	Signal Name	Remarks Notes	Destination	Avg	color	Destination	avg	color
	Ground		PC Card Pin 1	18	BLACK	Ground Strip Pin 2 Top		33"
	Ground		PC Card Pin A	18	BLACK	Ground Strip Pin 3 Top		33"
	+5VDC		PC Card Pin 2	18	WHITE RED	Power Supply P5-8		58"
	+5VDC		PC Card Pin B	22	WHITE RED	Near Test Switch		24"
		Not Used	PC Card Pin 3					
	-5VDC		PC Card Pin C	22	WHITE	Power Supply P4-4		58"
	+12VDC		PC Card Pin 4	22	RED BLACK	Power Supply P5-2		58"
		Not Used	PC Card Pin D					
	Vertical	Sync	PC Card Pin 5	22	WHITE RED	TV Monitor J7-8		36"
	Size	Not Used	PC Card Pin E		WHITE	Selector Switch Center		
	Horizontal	Sync	PC Card Pin 6	22	BLACK	TV Monitor J7-7		37"
	Poker	Not Used	PC Card Pin F		Blue	Selector Switch Top		
		Not Used	PC Card Pin 7					
	Black Jack	Not Used	PC Card Pin H			Selector Switch Bottom		

Flnd No.	Signal Name	Remarks Notes	Destination	avg color	Destination	avg color
	PC-1	Not Used	PC Card Pin 8	22		
	PC-2	Female Jack	PC Card Pin J	22	Brown	Thin Side
	PC-2	Not Used	PC Card Pin 9	22		
	PC-0	Female Jack	PC Card Pin K	22	White	Wide Side
	10¢ Coin	Switch	PC Card Pin 10	22	White Green	10¢ Coin Switch N.O.
		Reset Switch	PC Card Pin L		Green	1 Pin Molex
	25¢ Coin	Switch	PC Card Pin 11	22	White Blue	25¢ Coin Switch N.O.
		Not Used	PC Card Pin M			
	Play Credit	Switch	PC Card Pin 12	22	Red Green	Play Credit Switch Pin 1
		Reset	PC Card Pin N		Blue	Reset Button
	Deal Switch		PC Card Pin 13	22	Yellow Green	Deal Switch Pin 1
		Not Used	PC Card Pin P		Yellow	Ground
	Discard 1	Switch	PC Card Pin 14	22	Orange	Discard 1 Switch Pin 1
		Thin	PC Card Pin R		Gray	Ground

Find No.	Signal Name	Remarks Notes	Destination	Awg	color	Destination	awg	color
	Draw Switch		PC Card Pin 15	22	white yellow	Draw Switch Pin 1		29"
		Not Used	PC Card Pin S					
	Stand Switch		PC Card Pin 16	22	red black	Stand Switch Pin 1		30"
		Not Used	PC Card Pin T					
	Token Switch		PC Card Pin 17	22	Gray	Token Motor Switch pin	N.O.	47"
	Payoff	Switch	PC Card Pin U	22	orange	Payoff Female J6-1		39"
	Test		PC Card Pin 18	22	red yellow	Test Switch Pin 1		20"
	Test 2	Not Used	PC Card Pin V	22	yellow	Test switch 2 Pin 1		20"
	Discard 2	Switch	PC Card Pin 19	22	Blue	Discard 2 Switch Pin 1		26"
	Discard 3	Switch	PC Card Pin W	22	Gray	Discard 3 Switch Pin 1		28"
	Discard 4	Switch	PC Card Pin 20	22	white	Discard 4 Switch Pin 1		31"
	Discard 5	Switch	PC Card Pin X	22	white red	Discard 5 Switch Pin 1		32"
		Not Used	PC Card Pin 21					
	Cancel	Switch	PC Card Pin Y	22	white green	Cancel Switch Pin 1		26"

Find No.	Signal Name	Remarks Notes	Destination	Awg color	Destination	awg color
	10¢ Counter		PC Card Pin 22	22 red violet	Counter Strip Pin 1	19"
		Not Used	PC Card Pin Z			
	Token Motor	NOT USED OP. ADD	PC Card Pin 23	22 yellow	Token Relay Coil Pin 1	20"
		Not Used	PC Card Pin a			
		Not Used	PC Card Pin 24	22		25"
		24 Volt	PC Card Pin b	Yellow	Meter Strip	
	Audio	PC C	PC Card Pin 25	22 white violet	Speaker Pin 1	48"
		Not Used	PC Card Pin c			
			PC Card Pin 26	22		40"
		Not Used	PC Card Pin d			
	Discard 1	Lamp	PC Card Pin 27	22 green	Discard 1 Switch Pin L2	24"
	Video	(Black & White)	PC Card Pin e	22 white black	Monitor TV JB-4	36"
	Deal Lamp		PC Card Pin 28	22 black violet	Deal Switch Pin L2	32"
	Play Credit	Lamp	PC Card Pin f	22 white green	Play Credit Switch L2	35"

Find No.	Signal Name	Remarks Notes	Destination	Avg color	Destination	avg color
	Discard 4	Lamp	PC Card Pin 29	22	Discard 4 Switch L2	30"
	Stand Lamp		PC Card Pin h	22	Stand Switch Pin L2	31"
	25¢ Unlock	Anode of diode on coil	PC Card Pin 30	22	25¢ Coin Unit Pin1 coil	60"
	Discard 5	Lamp	PC Card Pin i	22	Discard 5 Switch L2	32"
	Draw Lamp		PC Card Pin 31	22	Draw Switch Pin L2	29"
		Not Used	PC Card Pin k			
		Not Used	PC Card Pin 32			
	Discard 2	Lamp	PC Card Pin l	22	Discard 2 Switch L2	26"
	Cancel	Lamp	PC Card Pin 33	22	Cancel Switch Pin L2	26"
	Payoff	Counter	PC Card Pin m	22	Counter Strip Pin 5	118"
	Discard 3	Lamp	PC Card Pin 34	22	Discard 3 Switch L2	28"
	Green		PC Card Pin n	22	TV Monitor #8-3	36"
	25¢ Counter		PC Card Pin 35	22	Counter Strip Pin 3	20"
	Blue		PC Card Pin p	22	TV Monitor J8-5	36"

Find No.	Signal Name	Remarks Notes	Destination	Awg color	Destination	Awg color
	60 Hz	Power Supply wire	PC Card Pin 36	18	White Power Supply P 5-6	
	Red		PC Card Pin r	22	Red TV Monitor J8-1	36"
	Ground	4" Length	Discard 1 Switch Pin 2	22	Black Discard 2 Switch Pin 2	TO
	Ground	4" Length	Discard 3 Switch Pin 2	22	Black Discard 4 Switch Pin 2	TO
	Ground	4" Length	Discard 5 Switch Pin 2	22	Black Play Credit Switch pin 2	to
	Ground	4" Length	Deal Switch Pin 2	22	Black Stand Switch Pin 2	To
	Ground	4" Length	Draw Switch Pin 2	22	Black Cancel Switch Pin 2	
	24VDC	4" Length	Discard 1 Switch L1	22	Red Discard 2 Switch pin L1	To
	24VDC	4" Length	Discard 3 Switch L1	22	Red Discard 4 Switch L1	To
	24VDC	4" Length	Discard 5 Switch L1	22	Red Play Credit Switch L1	To
	24VDC	4" Length	Deal Switch Pin L1	22	Red Stand Switch Pin L1	To
	24VDC	4" Length	Draw Switch Pin L1	22	Red Cancel Switch Pin L1	To
	24VDC	Sleeve Busy Wire Ag	Counter Strip Pin 8 Bot	20	Bus Counter Strip pin 7 Bot	to
	24VDC	Required	Counter strip pin 6 bott	20	Bus Counter Strip pin 4 Bott	to
	24VDC		Counter Strip Pin 2 bot	20	Bus	
	24VDC		Power Supply P4-1	18	Red Counter Strip Pin 8 top	34"
	24VDC		Counter Strip Pin 7	20	Red Discard 1 Switch pin L1	19"
	24VDC		Counter Strip Pin 7	20	Red 25c Coin Unit Call pin	30"

Find No.	Signal Name	Remarks Notes	Destination	Avg color	Destination	avg color
	24VDC	NOT USED Add OP	Counter Strip Pin 6	20	Red 10¢ Coin Unit Coil pin2	
	24VDC	NOT USED Add OP	Counter Strip Pin 4	20	Red Token Relay Pin 2	
	Ground	Sleeve Buss Wire As	Ground Strip pin 1 bott	18	Buss Ground strip pin 2 bottom to	Buss
	Ground	Required	Ground strip pin 3 bott	18	Buss Ground strip pin 4 bottom to	Buss
	Ground		Ground strip pin 5 bott	18	Buss Ground strip pin 6 bottom to	Buss
	Ground		Ground strip pin 7 bott	18	Buss Ground strip pin 8 bottom	
	Ground		Power supply P5-3	18	Black Ground strip pin 1 top	33"
	Ground		Power supply P5-1	18	Black Ground strip pin 1 top	33"
	Ground		Ground strip pin 4 top	18	Black Cancel Switch pin 2	45"
	Ground		Ground strip pin 5 top	18	Black TV Monitor J8-2	38"
	Ground		Ground strip pin 5 top	22	Black AC Switch left side center	40"
	Ground		Ground strip pin 6 top	22	Black 28¢ Coin switch center	75"
	Ground	NOT USED	Ground strip pin 6 top	22	Black 10¢ coin switch center	44"
	Ground	NOT USED	Ground strip pin 7 top	22	Black Token switch center	44"
	Ground		Ground strip pin 7 top	22	Black Test switch center	43"
	Ground					

Fund No.	Signal Name	Remarks Notes	Destination	Avg color	Destination	avg color
	Ground		Ground strip pin 8 top	22	Payoff female J6-2	61"
	Battery Neg		AC switch left side bott	22	Battery holder negative pin	52"
	10¢ Lead 1 (10¢ Counter)		10¢ Counter lead 1	AS Supplied	Counter strip pin 1 top	
	10¢ lead 2 (=24vdc)		10¢ Counter lead 2	AS Supplied	Counter strip pin 2 top	
	25¢ Lead 1 (25¢ Counter)		25¢ Counter Lead 1	AS Supplied	Counter strip pin 3 top	
	25¢ Lead 2 (=24VDC)		25¢ Counter Lead 2	AS Supplied	Counter strip pin 4 top	
	Payoff lead 1 (Payoff Counter)		Payoff counter lead 1	AS Supplied	Counter strip pin 5 top	
	Payoff lead 2 (=24VDC)		Payoff counter lead 2	AS Supplied	Counter strip pin 6 top	
	AC Hot		Line Cord Black Wire		Line Fuse Pin 1	
	AC Hot (FUSED)		Line Fuse Pin 2	18	AC switch right side bottom	31"
	AC Switched		AC switch right side Cen	18	Line Filter Pin 1	21"
	AC Buss		Token Fuse Pin 1	18	TV Monitor Fuse Pin 1 to Buss	
			Power Supply Fuse pin 1	18	Buss	
	Token Fused	NOT USED	Token Fuse Pin 2	18	Token Unit Wire 1	
	TV Fused	(Lead in TV line cord)	TV Line Cord Black wire		TV monitor Fuse pin 2	

Find No.	Signal Name	Remarks Notes	Destination	Avg color	Destination	avg color
	Power Supply Fused		Power supply fuse pin 2	18	Black Power Supply P1-1 Male	6"
	AC Common		Line cord white wire		wire Line Filter Pin 3	
	AC Common		AC common strip pin1	18	Buss AC Common strip pin 2 to	
	AC Common		AC Common strip pin3	18	Buss	
	AC Common		Line filter Pin 5	18	wire AC Common strip pin 1	6"
	AC Common		AC Common strip pin 1	18	wire Power Supply P1-2 Male	6"
	AC Common	(Lead in TV Line cord)	AC Common strip pin 2	18	wire TV Monitor line cord white wire	
	AC Common	NOT USED	AC Common strip pin 3	18	wire Token Relay Pin 3	3"
	AC Common switched(splice)		Token Unit wire 2	18	wire Token relay pin 4	47"
	AC Safety Ground		AC Cord green wire		Green Line Filter Pin 2	
	Power Supply Fused		Power supply J1-1 female	18	Black Power Supply pin 1 xfmr	6"
	AC Common		Power supply J1-2 female	18	wire Power supply pin 2 xfmr	6"
	Ground		Keyswitch Pin2	22	Black Payoff P6-2 Male	15"
	Payoff Switch		Keyswitch Pin 1	22	wire Payoff P6-1 Male	15"



Dear Customer:

Re: Model II Universal Vidio Game Card
Logic Board

Attached to this letter, you will find 10 pages of the most complete schematic we have ever had available covering our NYMFO II, DRAW POKER, JOKER POKER, HI-LO DOUBLE UP, BONUS 21/BLACK JACK and SUPER DOMINOS GAMES. If you wish to bring your "Tech Books" up to date, all you have to do is remove the last 2 sheets (marked SD1005810) from your books and replace with these new complete technical drawings.

We feel this should be of great help to our customers for repairs in the field. However, please feel absolutely free to call us on our 800 number if there is anything you do not understand or you need additional information on.

Sincerely Yours,

A handwritten signature in cursive script that reads 'Bill Blair'.

Bill Blair
Vice President Engineering



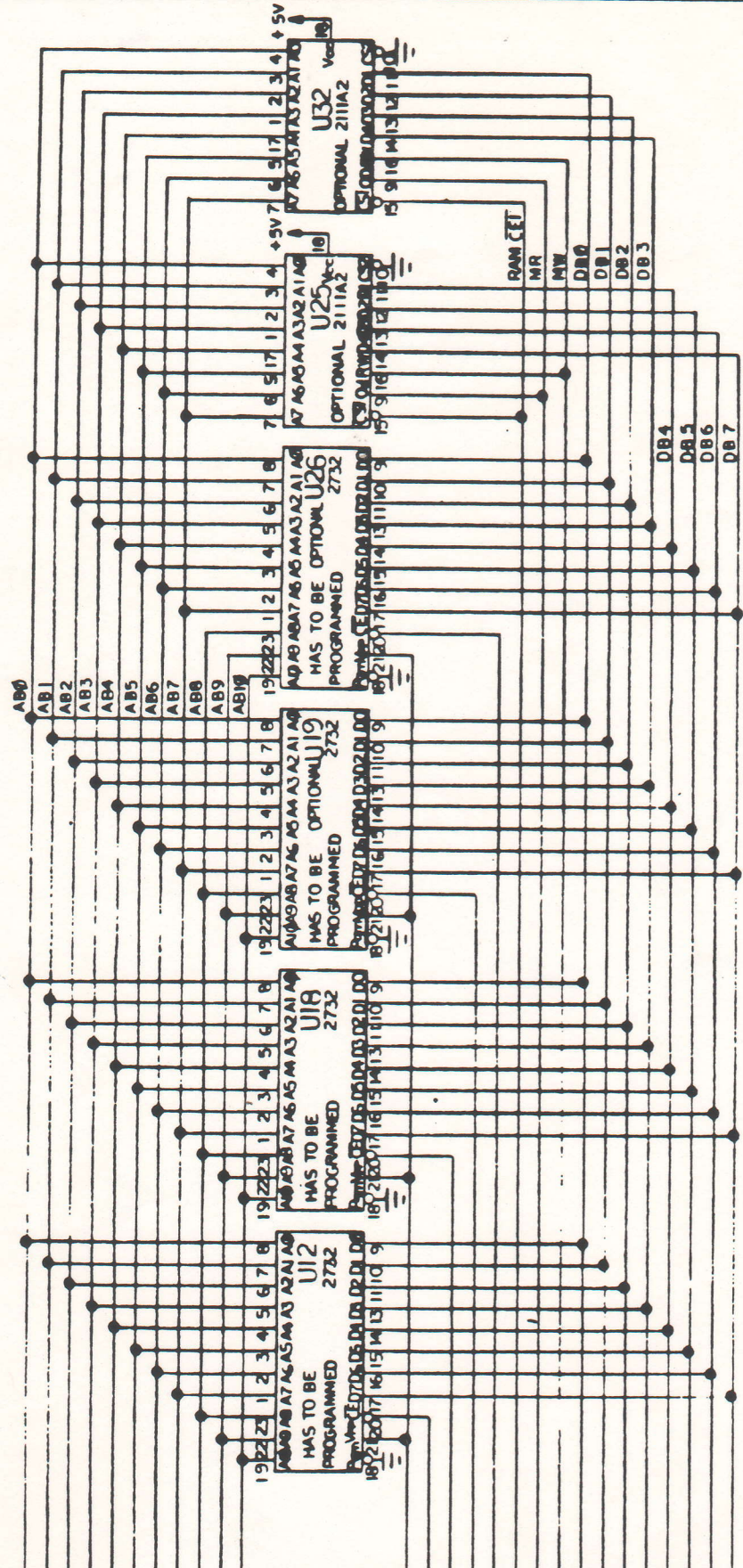
M. KRAMER MANUFACTURING, INC.
1100 TOWBIN AVE.
LAKEWOOD, N.J. 08701

MODEL II
UNIVERSAL VIDEO C

SCALE	GRADED BY	CHECKED	APPROVED
	BLAIR	N. W.	
	DATE 3 JAN 83	DATE 3 JAN 83	
ALL INFORMATION ON THESE UNLESS OTHERWISE NOTED WITH TOLL FREE 1			B 1 1010

AB0
AB1
AB2
AB3
AB4
AB5
AB6
AB7
AB8
AB9
AB10

ROM TYPE
ROM 0
ROM 1
ROM 2
ROM 3
RAM C1
MR
MW
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7



M. KRAMER MANUFACTURING, INC.
1100 TOMBW AVE.
LAKE WOOD, N.J. 08701

MODEL II
UNIVERSAL VIDEO GAME CARD

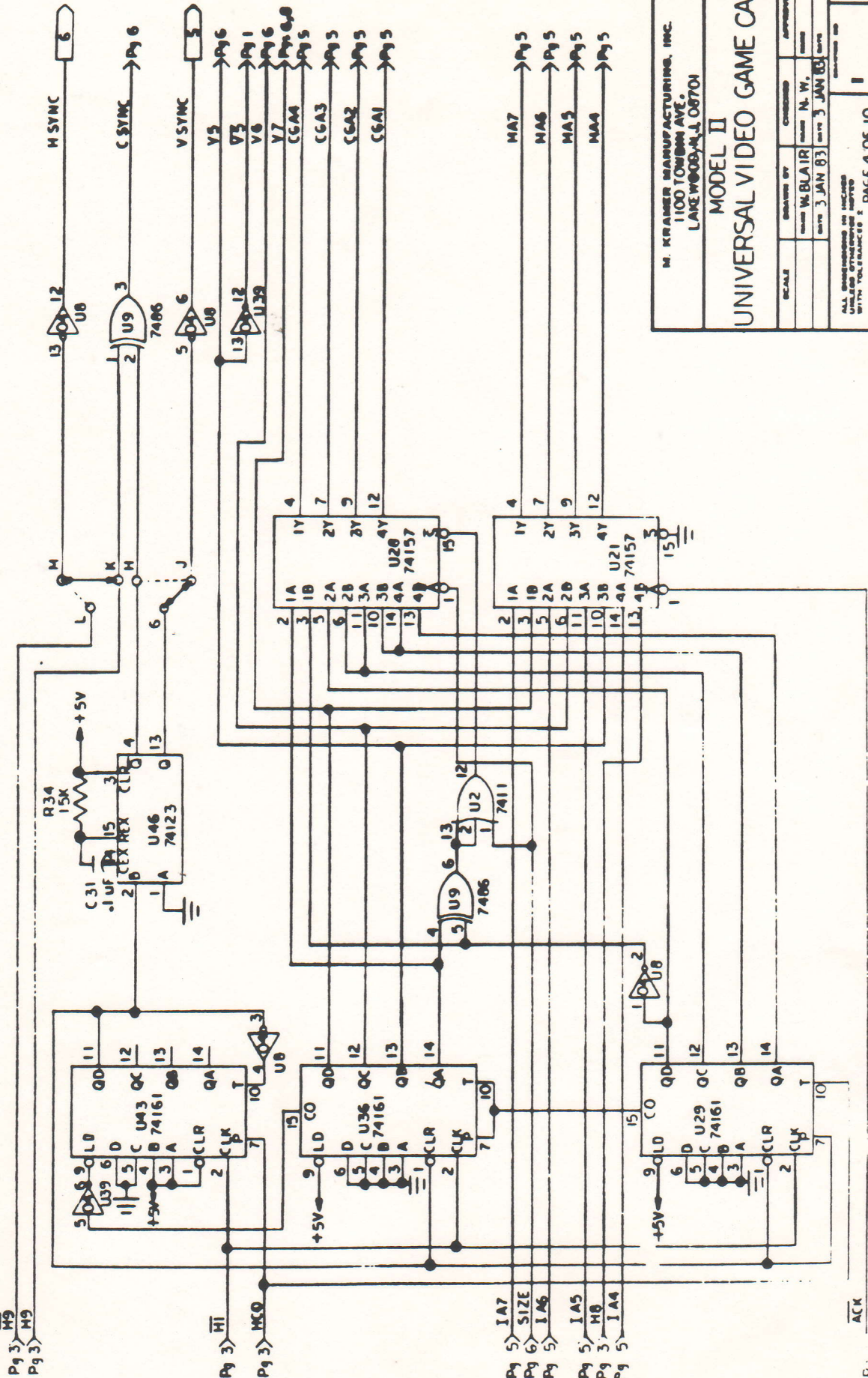
SCALE	DESIGNED BY	CHECKED	APPROVED
	W. BLAIR	W. W.	
	DATE 3 JAN 83	DATE 3 JAN 83	DATE

ALL DIMENSIONS IN INCHES
UNLESS OTHERWISE NOTED
WITH TOLERANCES 2

PAGE 2 OF 10

B



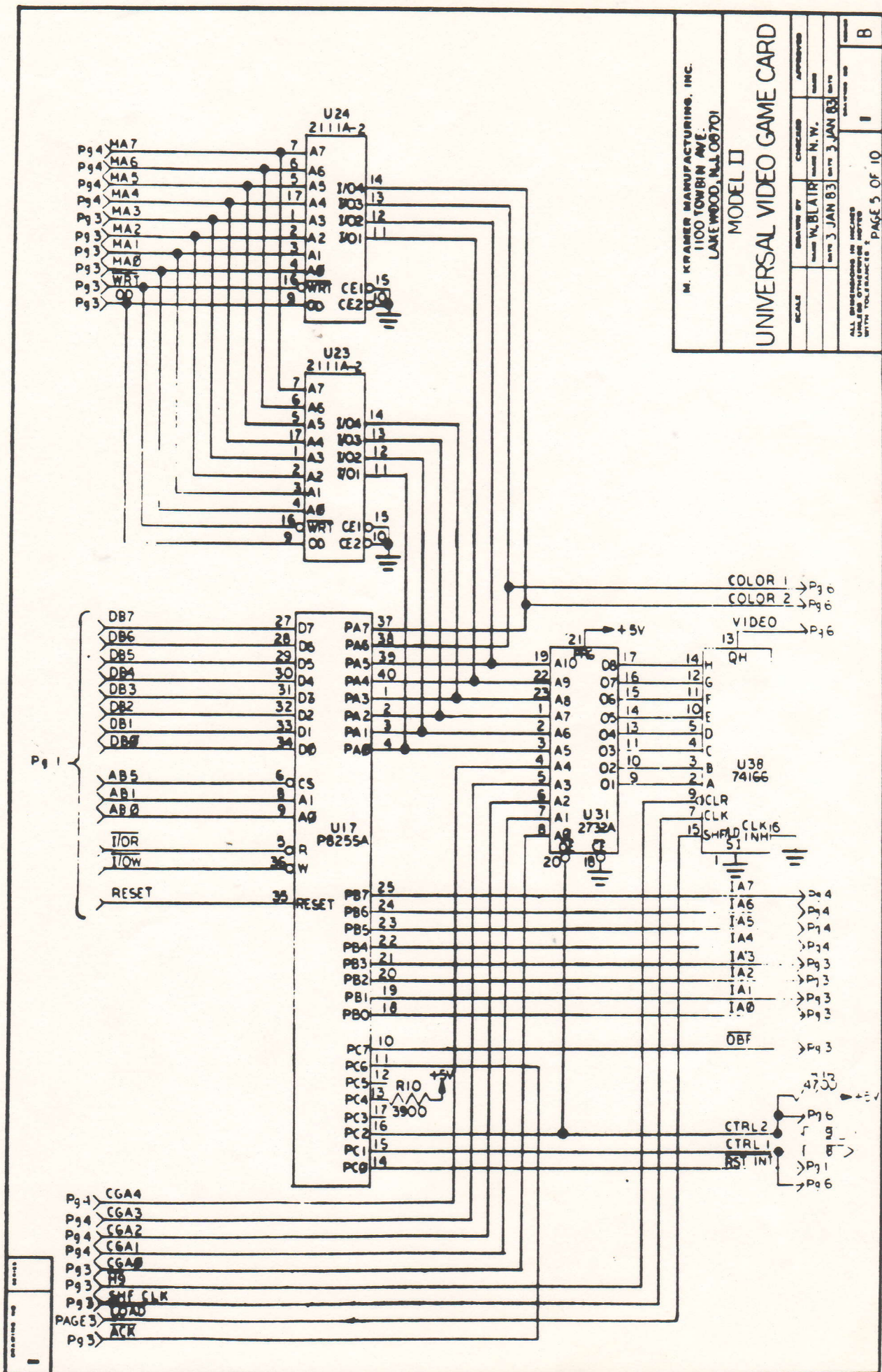


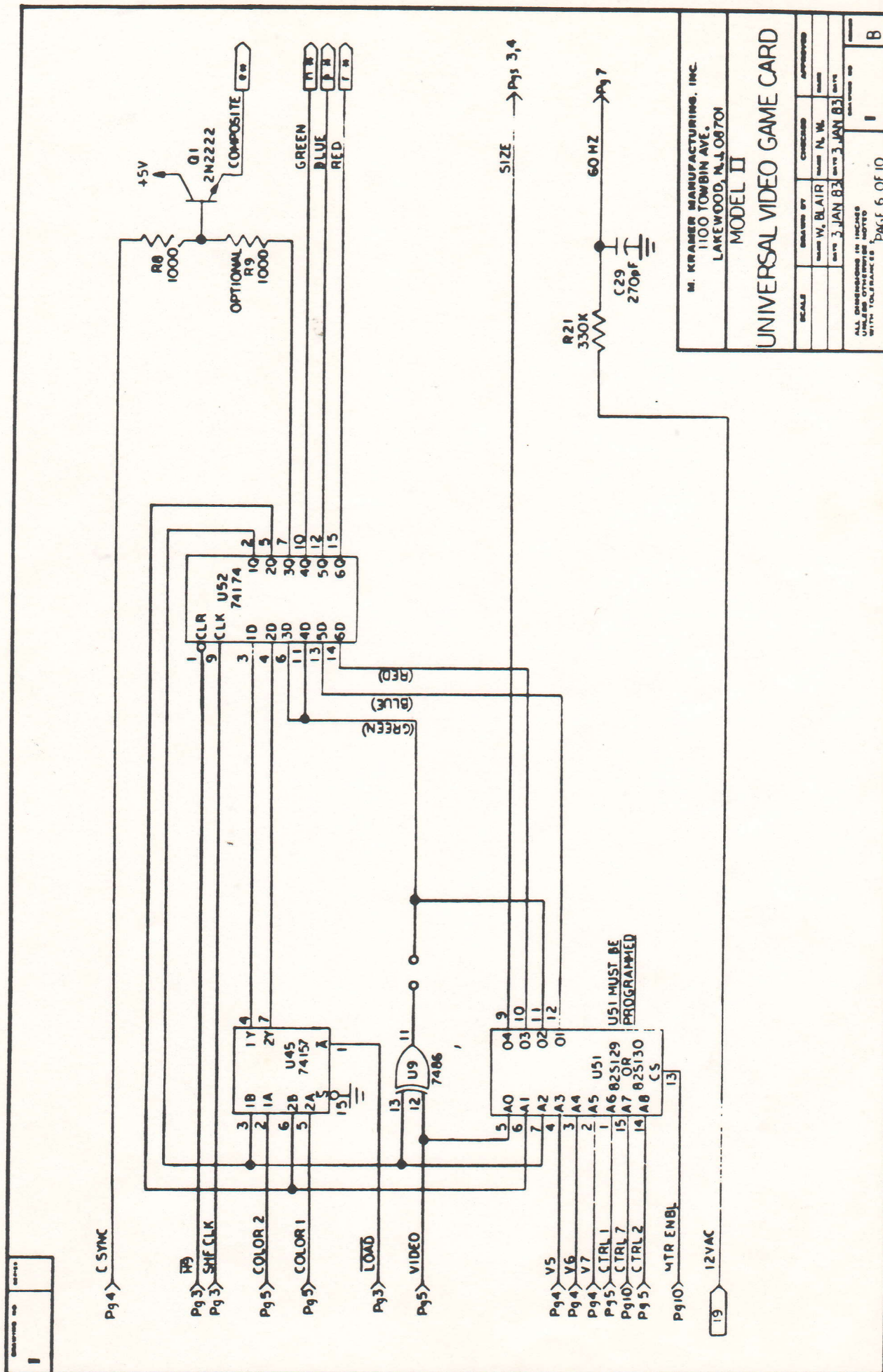
M. KRAMER MANUFACTURING, INC.
1100 TOWN AVE.
LAKE WOOD, AL 360701

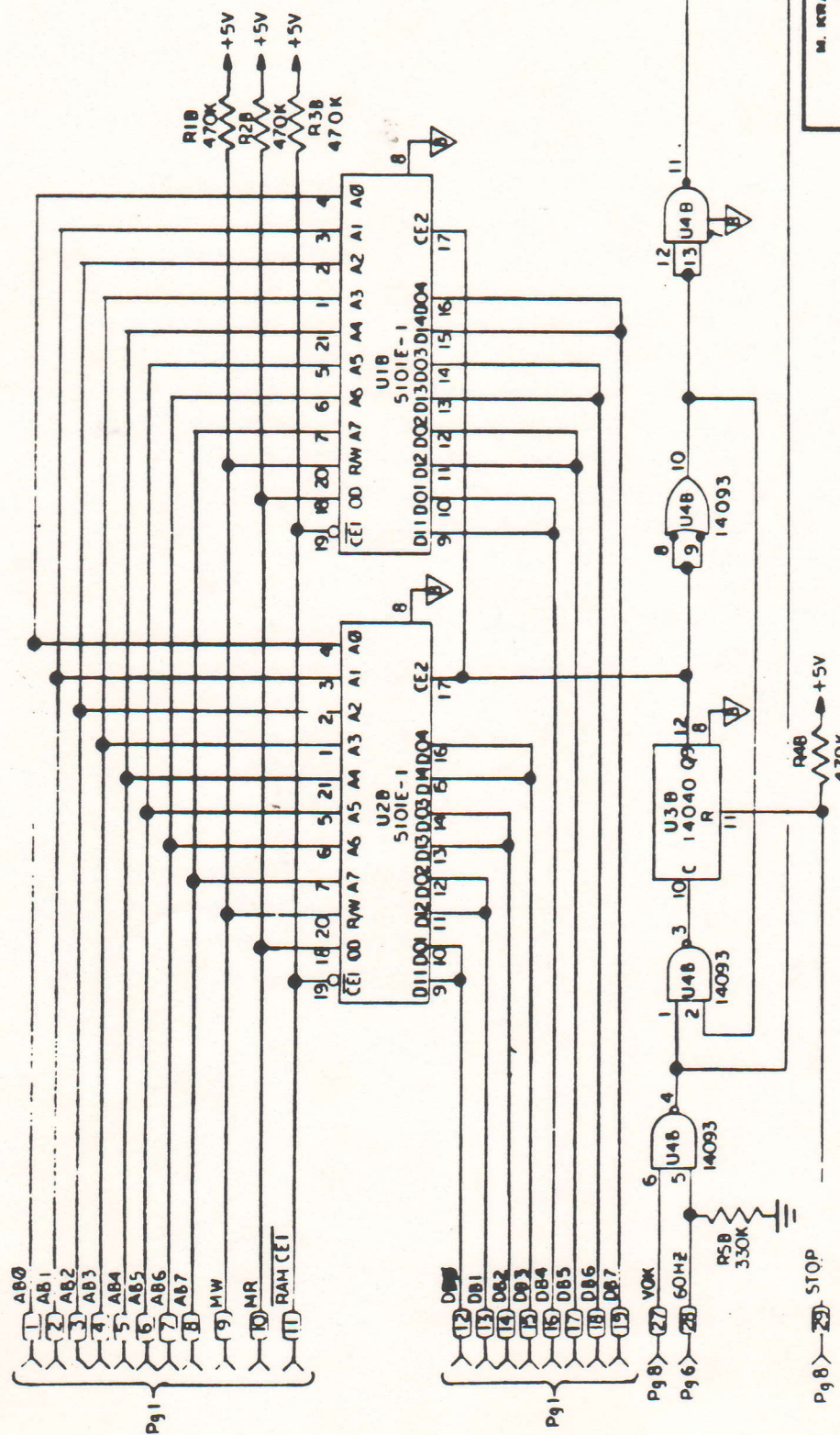
MODEL II

UNIVERSAL VIDEO GAME CARD

SCALE	DESIGNED BY	CHECKED	APPROVED
	W. BLAIR		N. W.
	DATE 3 JAN 83	DATE 3 JAN 83	DATE
ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED WITH TOLERANCES ±			
PAGE 4 OF 10			B





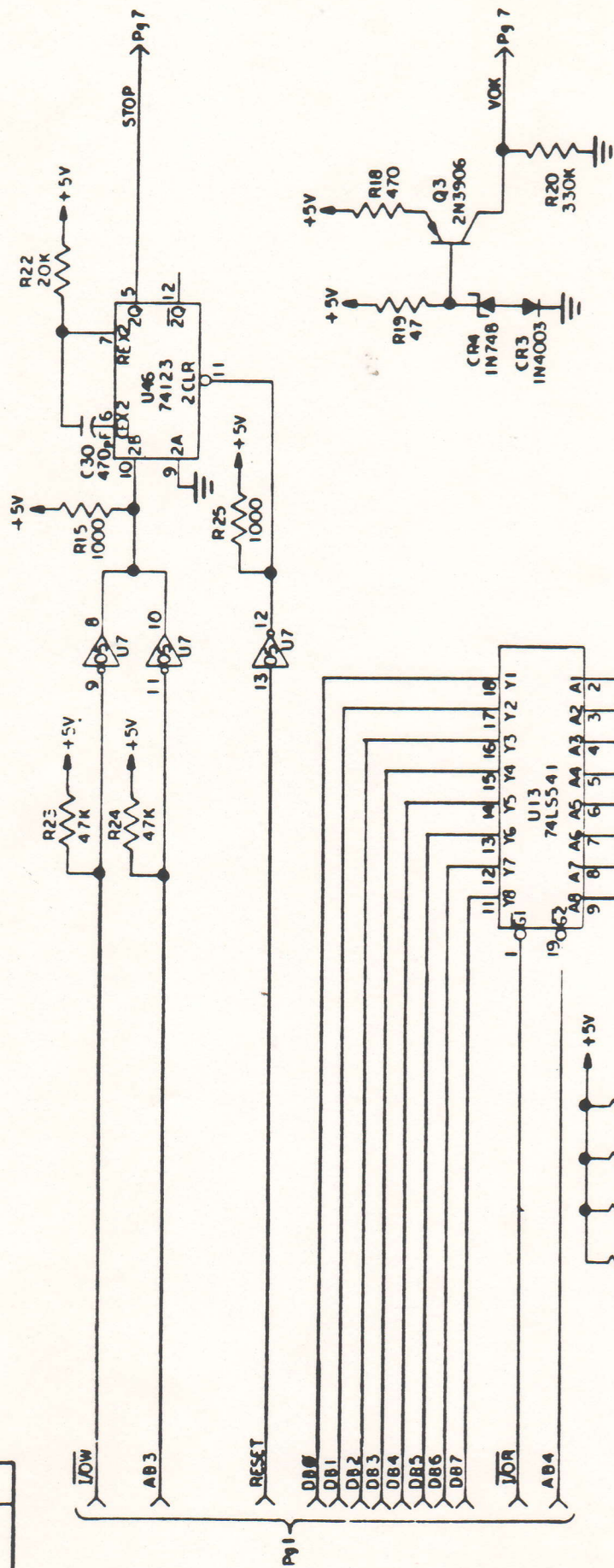


□ = CONNECTORS ON BATTERY BOARD
△ = SPECIAL BATTERY BOARD GROUND

M. KRAMER MANUFACTURING, INC.
1100 TOWBIN AVE.
LAKEWOOD, N.J. 08704

MODEL II
UNIVERSAL VIDEO GAME CARD

SCALE	GRAINED BY	CHECKED	APPROVED
	NAME W. LAIR	NAME N. W.	NAME
	DATE 3 JAN 63	DATE 3 JAN 63	DATE
ALL INFORMATION ON THIS UNLESS OTHERWISE NOTED WITH TOLLS RAISED			DATE 10



M. KRAMER MANUFACTURING, INC.
1100 TOWBIN AVE.
LAKEWOOD, N.J. 08701

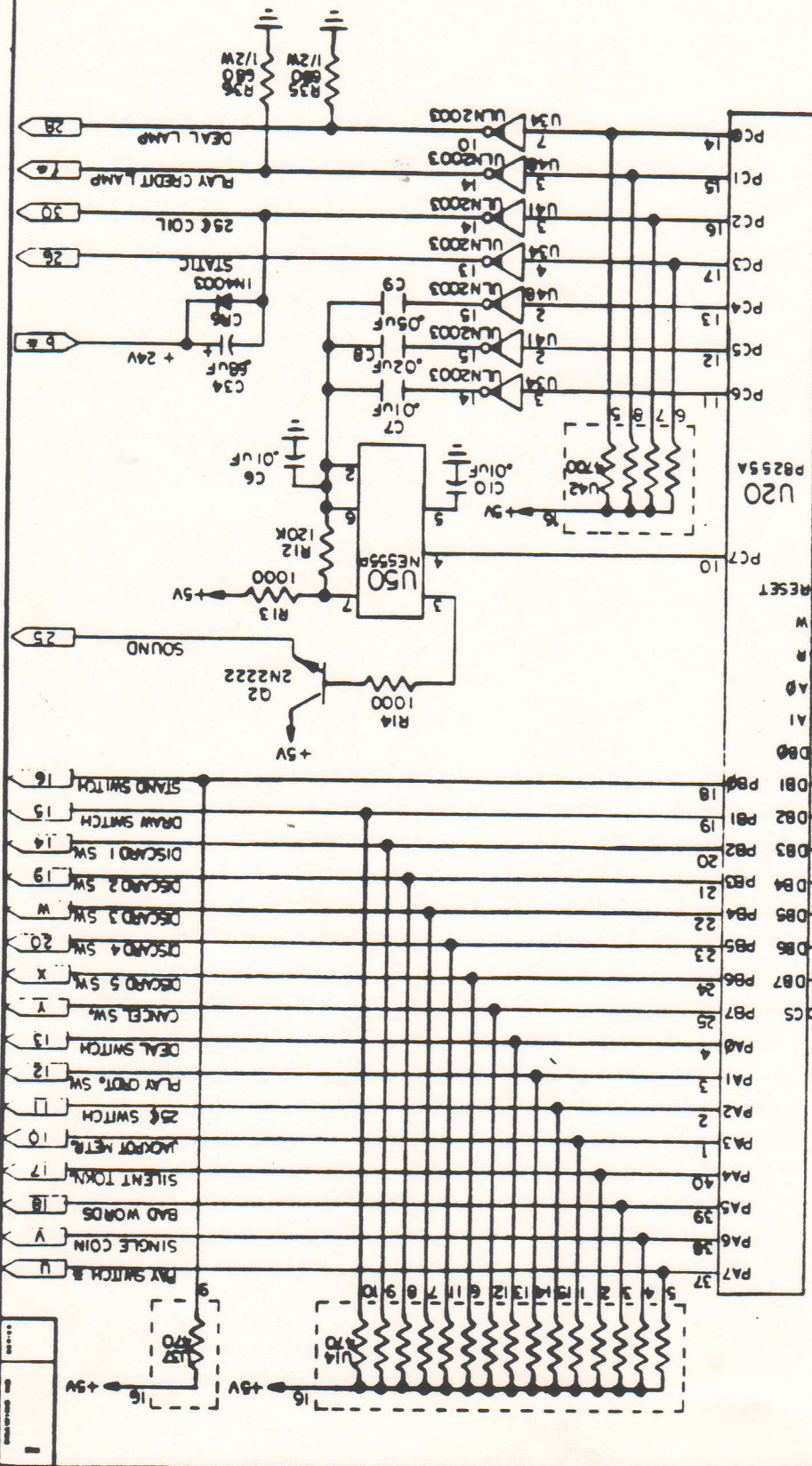
MODEL II

UNIVERSAL VIDEO GAME CARD

SCALE	DRIVERS BY	CHECKED	APPROVED
	NAME W BLAIR	NAME N W	NAME
	DATE 3 JAN 83	DATE 3 JAN 83	DATE

ALL DISSEMINATIONS IN ACCORDANCE WITH POLARIS & PAGE 8 OF 10

• LOWER CASE LETTERS



M. KRAMER MANUFACTURING, INC.
1100 TOWNSHIP AVE.
LAKEWOOD, N.J. 08104

MODEL II

UNIVERSAL VIDEO GAME CARD

SCALE	DESIGNED BY	CHECKED	APPROVED
	W. BLAIR	W. BLAIR	
	DATE 3 JAN 83	DATE 3 JAN 83	DATE
ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED WITH TOLERANCES: PAGE 9 OF 10			
			B

THE WOODMAN AVE.
WOOD, N.J. 07094

MODEL II

UNIVERSAL VIDEO GAME CARD

SCALE	DRAWN BY	CHECKED	APPROVED
	NAME W. BLAIR	NAME M. W.	
	DATE 3 JAN 68	DATE 3 JAN 68	

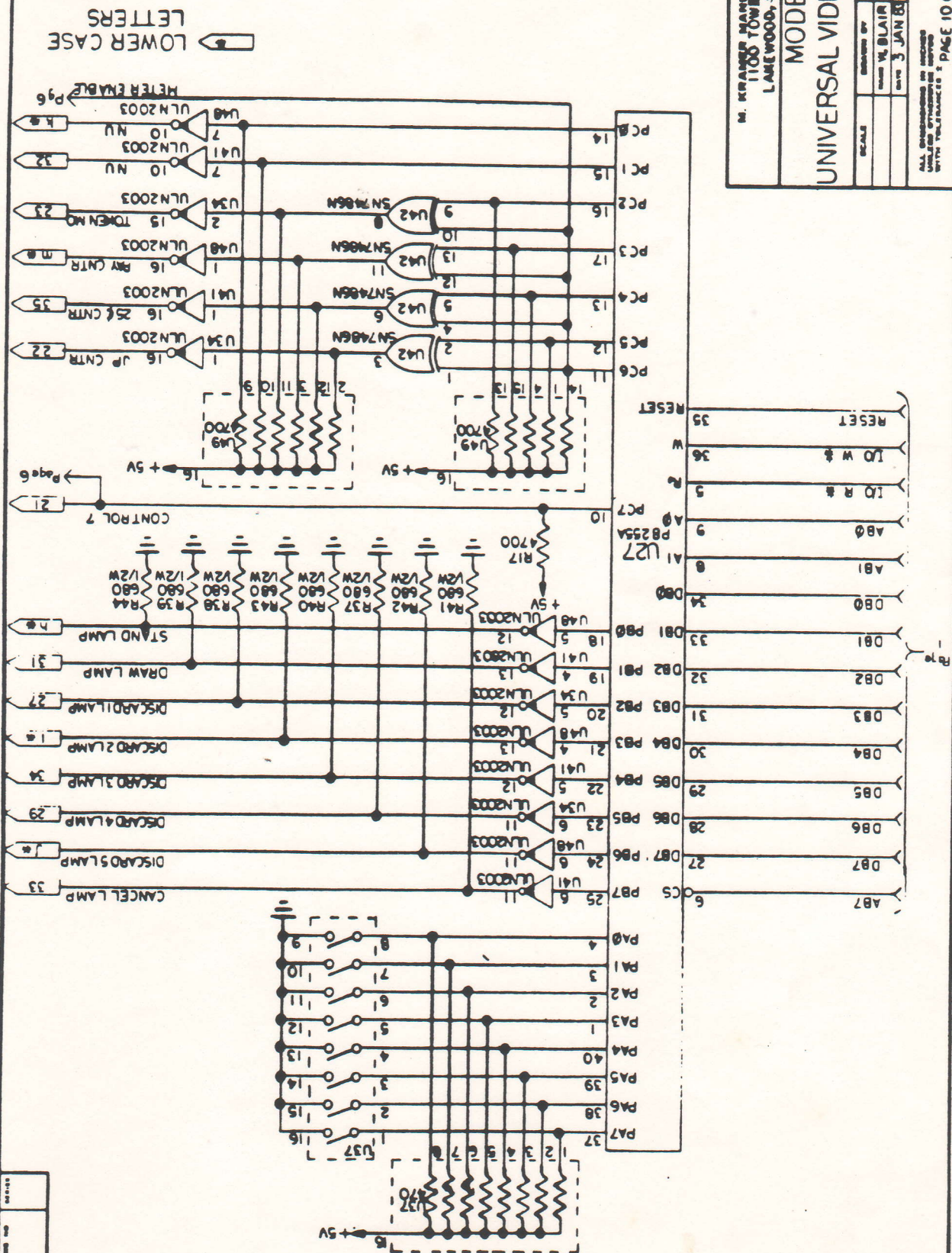
ALL DIMENSIONS ARE IN INCHES
UNLESS OTHERWISE NOTED
WITH TOLERANCES ±

DATE PREPARED 100

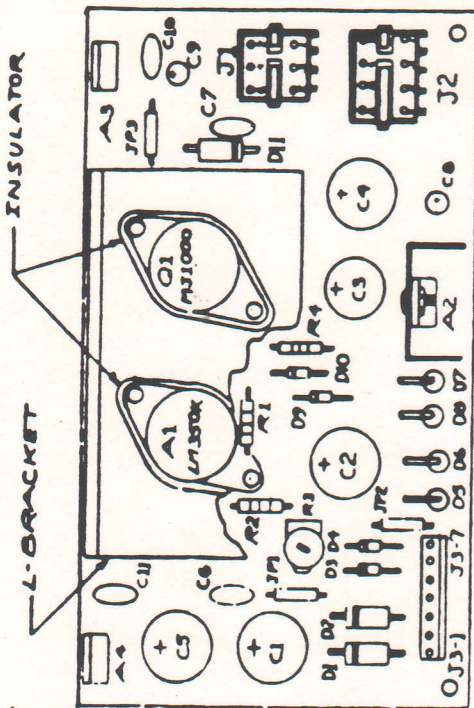
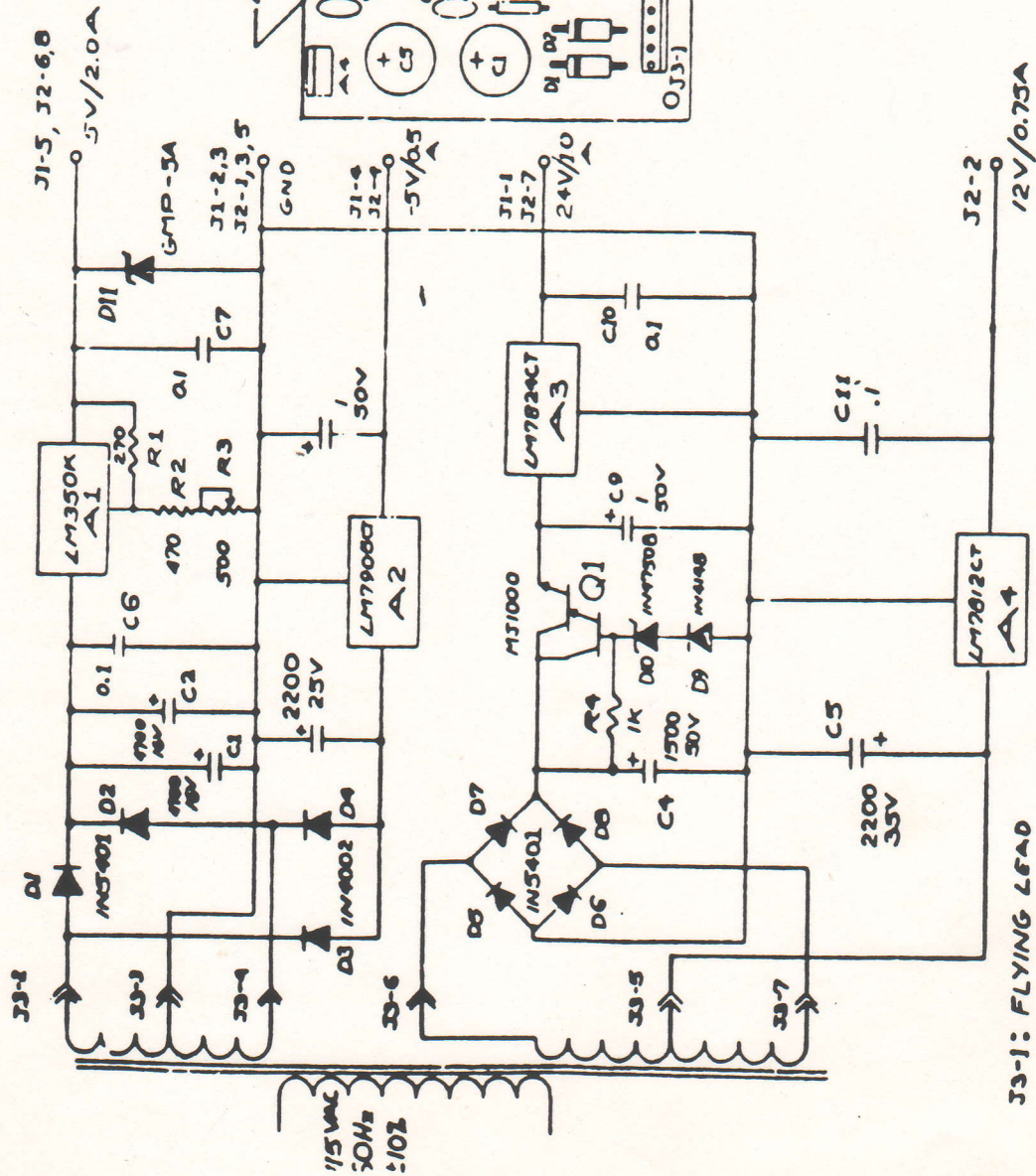
PAGE 10 OF 10

B

1997

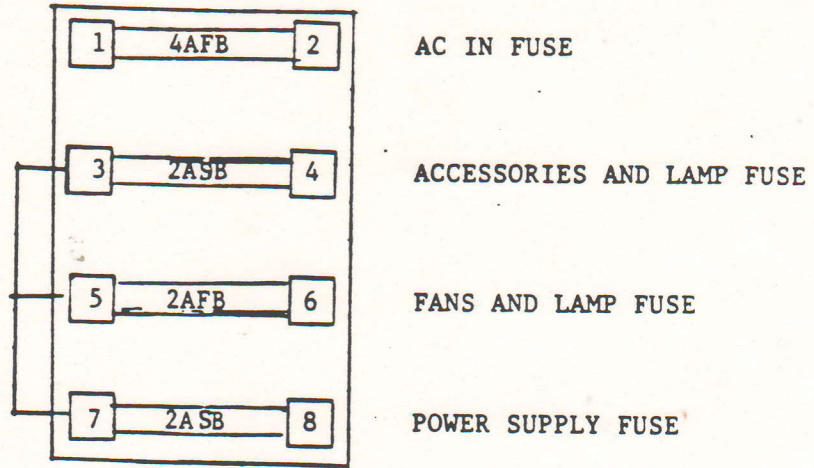


LOWER CASE
LETTERS

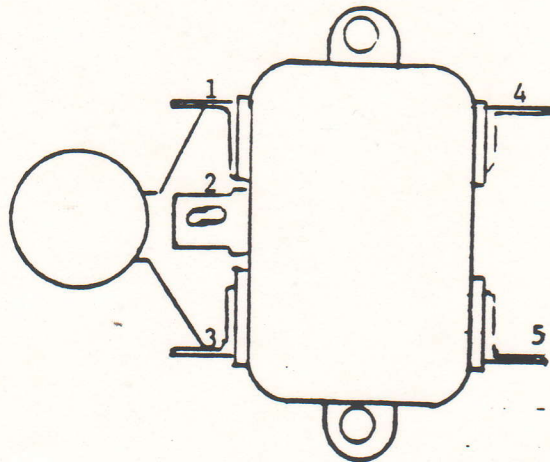


TELEPHONE	KRAMER / AUTOTRON
NUMBER OF LINES	1
NAME	SCHEMATIC 1
PROJECT	PCB ASSY.
DATE	11/13
DESIGNED BY	J. SONNIE
CHECKED BY	
APPROVED BY	
MOD III POWER SUPPLY	

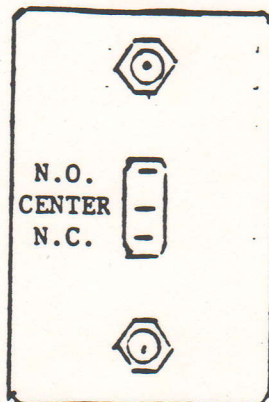
FUSE BLOCK



AC IN
VARISTOR



AC FILTERED



AC SWITCH

SIGNAL NAME	NOTES	FROM	COLOR	SIZE	AWG	TO
AC HOT IN		AC CORD BLACK WIRE	BLACK	3" STRIP	18	AC CORD SPLICE PIN 1
AC HOT IN		AC CORD SPLICE PIN 2	BLACK	3"	18	FUSE BLOCK PIN 1
AC HOT FUSED		FUSE BLOCK PIN 2	BLACK	12"	18	N.O. PIN AC SWITCH
AC HOT SWITCHED		CENTER PIN AC SWITCH	BLACK	6"	18	LINE FILTER PIN 1
AC HOT SWITCHED		LINE FILTER PIN 1	VARISTOR	LEADS	A/R	LINE FILTER PIN 3
AC HOT FILTERED		LINE FILTER PIN 4	BLACK	6"	18	FUSE BLOCK PIN 7
AC HOT FILTERED		FUSE BLOCK PIN 7	BUSS	A/R	18	FUSE BLOCK PIN 5
AC HOT FILTERED		FUSE BLOCK PIN 5	BUSS	A/R	18	FUSE BLOCK PIN 3
ACCESSORIES AND LAMP 1 AC HOT FUSED		FUSE BLOCK PIN 4	BLACK	6"	18	3 PIN PLUG PIN 1
FANS AND LAMP 2 AC HOT FUSED		FUSE BLOCK PIN 6	BLACK	12"	18	2 PIN RECEPTACLE PIN 1
POWER SUPPLY AC FUSED		FUSE BLOCK PIN 8	BLACK	6"	18	2 PIN PLUG PIN 1
AC COMMON IN		AC CORD WHITE WIRE	WHITE	3" STRIP	18	AC CORD BLUE LUG
AC COMMON IN		AC CORD BLUE LUG	WHITE	A/S	18	LINE FILTER PIN 3
AC COMMON FILTERED		LINE FILTER PIN 5	WHITE	6"	18	AC COMMON STRIP TOP PIN 1
AC COMMON FILTERED		AC COMMON STRIP BOT PIN 1	BUSS	A/R	18	AC COMMON STRIP BOT PIN 2
AC COMMON FILTERED		AC COMMON STRIP BOT PIN 2	BUSS	A/R	18	AC COMMON STRIP BOT PIN 3

