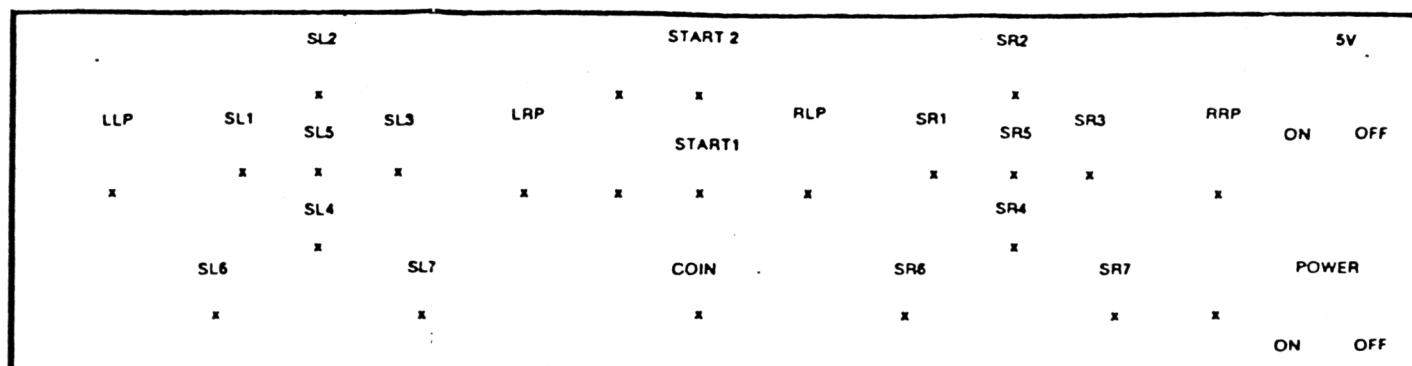# Kurz·Kasch, Inc.

Electronics Division
Box 1246 • 2271 Arbor Blvd.
Dayton, Ohio 45439
Telephone (513) 299-0990

Operating Instructions

For Model _280 A_
DEPTH CHARGE
GREMLIN

	SL2					START 2			SR2				5V
		x			x	x			x				
LLP	SL1	SL5	SL3	LRP		START1	RLP	SR1	SR5	SR3	RRP	ON	OFF
		x	x	x					x	x			
x		SL4			x	x	x	x		SR4		x	
		x								x			
	SL6		SL7			COIN		SR6		SR7		POWER	
	x		x			x		x		x	x		
												ON	OFF

1 Insert _280_A program card into TF-650 "A" connector, number side up.

2. Connect 4-pin connector on right hand side of _280_A program card to header pins _3_5 thru _3_8 with connector slots facing away from game board. _coin plug_

3. Connect 10-pin connector on right hand side of _280_A program card to header pins _~~1~~ 65_ thru _~~10~~ 74_. _power sup_

4. Connect 10-pin connector on left hand side of _280_A program card with 2 wires _video_ to header pins _~~19~~ 75_ thru _~~28~~ 84_.

5. Connect remaining 10-pin connector on left hand side of _280_A program card to header pins _~~53~~ 20_ thru _~~62~~ 30_.

6. Slide 5 VOLT switch to ON.

7. Slide POWER switch to ON.

8. (Slide switch on 341A program card to   for   , and <u>INV</u> for) _Doesn't matter_
and   .

9. Push COIN switch to credit game. _(GAME STARTS - ONLY 1 PLAYER)_

10. ~~Push START 1 for 1 player and START 2 for 2 player mode.~~

1. SR1 and SR_1_ are LEFT and RIGHT controls. ~~SR5 is FIRE and SPEED control,~~
~~depending on game select.~~ SR_3_ and SR_4_ are ~~UP~~ and ~~DOWN~~ controls.
FRONT   REAR
FIRE   FIRE

12. Connect logic probe to header pin _34_ to check coin counter. Will go from high to low.
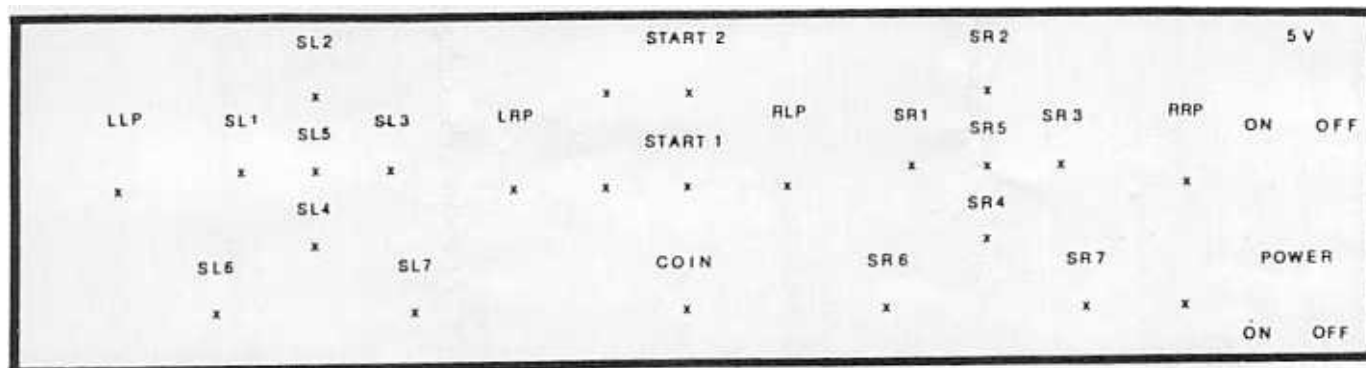
Kurz-Kasch, Inc.
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Box 1246
1501 Webster Street
Dayton, Ohio 45401
Telephone (513) 223-8161

1. Install the 283B card into the program B connector, number side up.

2. Connect the two molex connectors to the Mother Board.

3. Connect the alligator clip to the ground strap coming from the test fixture.

4 Set monitor selector switch, SW-7 on game board, to ON for black and white video.

5. Install the 282A card into the program A connector, number side up.

6. Connect the three Molex connectors to the game board.

7 Connect speakers to the speaker leads.

8. Slide the 5V switch to ON.

9. Slide the Power switch to ON.

10. The switch on the 283B card is reset.

11. Press COIN to coin the game.
    Press START 1 for a one player game.
    Press START 2 for a two player game.

12. SR-5 fires the right torpedo

    Combinations of SR-1 through SR-7, except SR-5, aim the right torpedo.

    SL-5 fires the left torpedo.

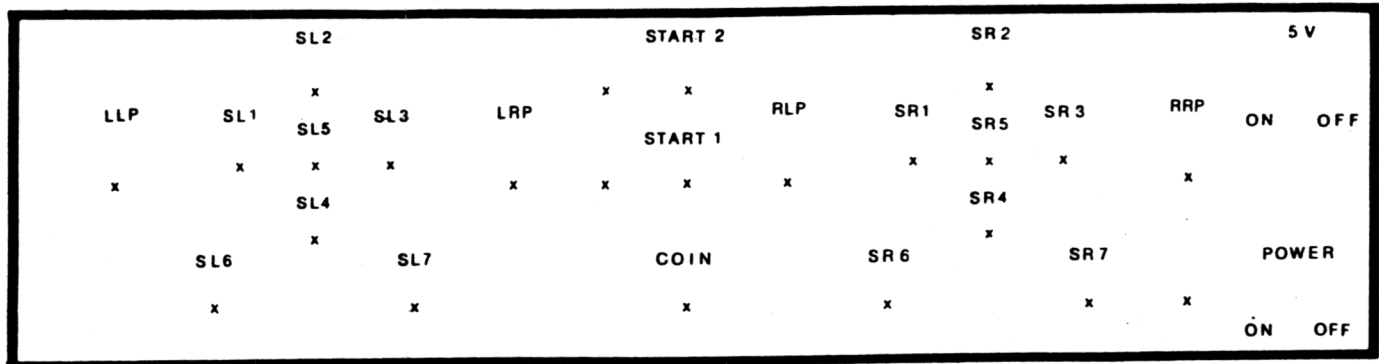   Combinations of SL-1 through SR-7, except SL-5, aim the left torpedo.

Operating Instructions
For Model ___ 283B

MOTHER BOARD II

MIDWAY

	SL2				START 2				SR 2			5 V	
	x			x	x			x					
LLP	SL1	SL5	SL3	LRP		RLP	SR1	SR5	SR 3	RRP	ON	OFF	
					START 1								
	x	x	x				x	x	x				
x		SL4		x	x x	x		SR4		x			
		x						x					
SL6			SL7		COIN		SR 6		SR 7		POWER		
x			x		x		x		x	x			
											ON	OFF	

The 283B card is the power supply for the new Midway Mother Board and replaces the 185B card.

The spare parts can be used to make a cable when using a color monitor. The push button switch is reset.

The Mother Board can be powered up without the game board, or with the game board and no program A card. Video will be seen on the screen.

Kurz-Kasch, Inc.

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Box 1246
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Dayton, Ohio 45401
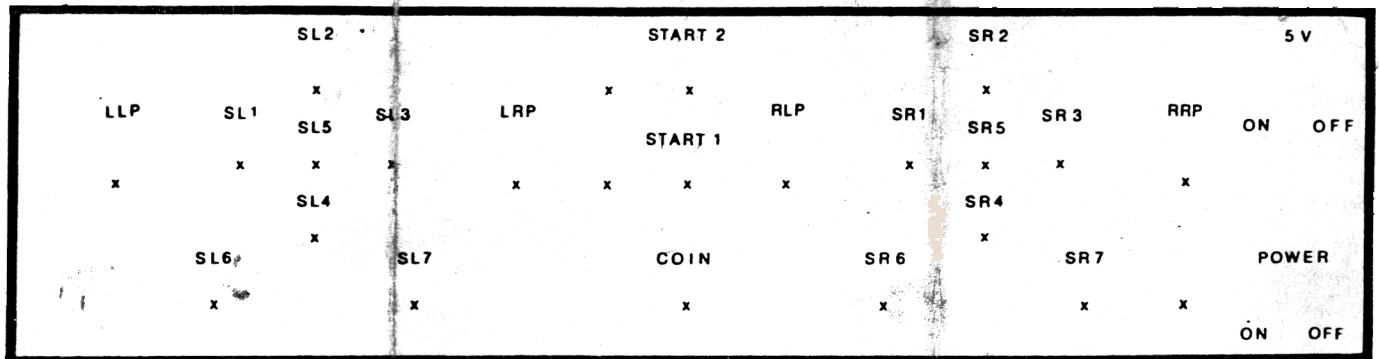Telephone (513) 223-8161

Operating Instructions
For Model 295A, 185B, 222C

SPACE INVADERS

MIDWAY

SL2		START 2		SR2		5 V
x		x x		x		
LLP SL1 SL5 SL3	LRP	START 1	RLP SR1 SR5 SR3		RRP	ON OFF
x x x x	x x x x		x x x		x	
x SL4			SR4		
SL6 x	SL7 x	COIN x	SR6 x	SR7 x x		POWER
						ON OFF

1. Insert the 185B card into the program B connector, number side up.

2. Insert the 295A card into the program A connector, number side up.

3. Insert the 222C card into the test fixture, number side up.

4. Insert the SPACE INVADERS mother board into the 222C card.

5. Connect the two cables from the 295A card to the game board, with red dot showing. Connect a speaker to the speaker leads.

6. Push COIN to coin the game, START 2 to reset the board.

7. Start the game with the switch on the 295A card.

8.
    SL-1   MOVE RIGHT
    SL-2   MOVE LEFT =SL-3
    SL-5   FIRE

Kurz·Kasch, Inc.

Electronics Division
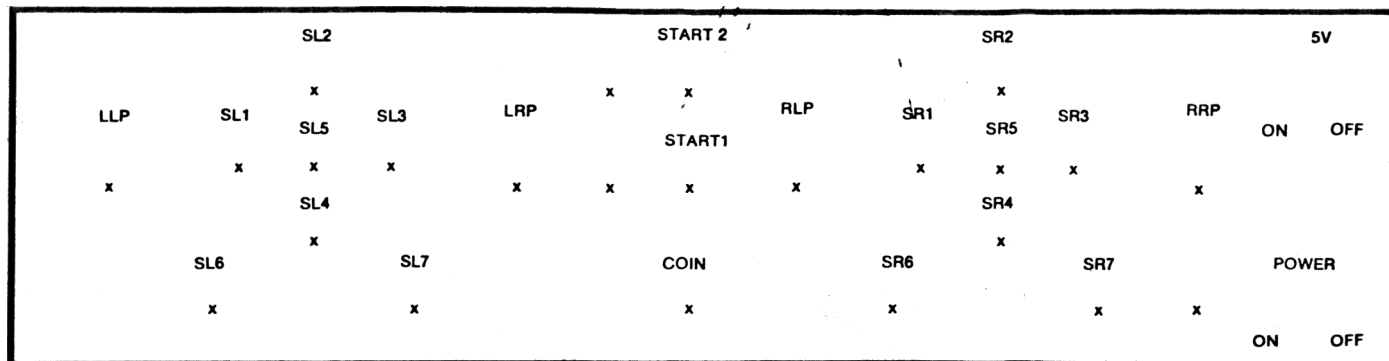Box 1246 • 2271 Arbor Blvd.
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Operating Instructions

For Model ___299AB, 265C___

___FOOTBALL___

___ATARI___

		SL2			START 2			SR2			5V
		x				x	x		x		
LLP	SL1	SL5	SL3	LRP	x	START1	RLP	SR1	SR5	SR3	RRP	ON	OFF
x		x	x	x		x	x	x		x	x	x		x
		SL4							SR4		
	SL6	x	SL7			COIN		SR6	x	SR7	POWER
	x		x			x		x		x	x	ON	OFF

1. Insert 299B card into PROGRAM B connector, number side up.

2. Insert 299A card into PROGRAM A connector, number side up.

3. Insert 265C card into 25 PIN connector, number side up.

4. Insert GAME BOARD into 265C connector.

5. Connect speaker to RED lead on B card and BLACK lead on A card.

6. Push POWER SWITCH to ON.

NOTE: HUM BARS CAN BE ELIMINATED BY CONNECTING A JUMPER FROM 5 VOLT TERMINAL ON TEST FIXTURE TO OUTPUT SIDE OF REGULATOR ON GAME BOARD. ALSO CONNECT GND CLIP TO GAME BOARD.

7. COIN 1 is COIN switch.
   COIN 2 is START 1 switch.

8. SR5 is PLAY SELECT switch right side.
   SL5 is PLAY SELECT switch left side.
   LED indicators are on 299A card.

9. RIGHT SIDE PLAYER MOVEMENT
   SR1 & SR3 are UPFIELD and DOWNFIELD movement when switches on 299A card are in R (right side) position. SR2 & SR4 are ACROSS FIELD movement when switches on 299A card are in R (right side) position.

10. LEFT SIDE PLAYER MOVEMENT
    SR1 & SR3 are UP & DOWNFIELD movement when switches on 299A card are in L (left side) position. SR2 & SR4 are ACROSS FIELD movement when switches on 299A card are in L (left side) position.

11. TEST switch is on 299A card.

7/11/79